



Fundação Oswaldo Cruz  
Instituto Fernandes Figueira  
Pós-Graduação em Saúde da Criança e da Mulher

**Manifestações orais e dentárias em pacientes com Deficiências de  
Fagócitos: Uma Revisão Sistemática da literatura científica**

**Ana Luiza Machado Pinto**

**Junho, 2011**



**Fundação Oswaldo Cruz  
Instituto Fernandes Figueira  
Pós-Graduação em Saúde da Criança e da Mulher**

**Manifestações orais e dentárias em pacientes com Deficiências de  
Fagócitos: Uma Revisão Sistemática da literatura científica**

**Ana Luiza Machado Pinto**

Dissertação apresentada à Pós-Graduação em Saúde da Criança e da Mulher como parte dos requisitos para a obtenção do título de Mestre

**Orientadora: Maria Ignez Capella Gaspar Elsas  
Co-orientador: José Marcos Telles da Cunha**

**Junho, 2011**

**FICHA CATALOGRÁFICA NA FONTE  
INSTITUTO DE COMUNICAÇÃO E INFORMAÇÃO  
CIENTÍFICA E TECNOLÓGICA EM SAÚDE  
BIBLIOTECA DA SAÚDE DA MULHER E DA CRIANÇA**

P659m Pinto, Ana Luiza Machado  
Manifestações orais e dentárias em pacientes com deficiências de fagócitos: uma revisão sistemática da literatura científica./ Ana Luiza Machado Pinto, 2011.  
126 f. ; il.; tab.

Dissertação (Mestrado em Saúde da Criança e da Mulher) –  
Instituto Fernandes Figueira, Rio de Janeiro, R J, 2011.

Orientador: Maria Ignez Capella Gaspar Elsas  
Coorinetador: José Marcos Telles da Cunha

Bibliografia: f. 123-126.

1. Anormalidades congênitas. 2. Fagócitos. 3. Imunodeficiência. 4. Manifestações bucais. 5. Infecções. I.Título.

CDD - 22ª ed. 610.043

## SUMÁRIO

1) Introdução.....	10
2) Justificativa .....	13
3) Objetivos: .....	16
3.1) Geral.....	16
3.2) Específico:.....	16
4) Quadro teórico.....	16
4.1) Conceito e histórico.....	16
4.2) Classificação.....	20
4.2.1) Imunodeficiências combinadas de células T e B .....	20
4.2.2) Imunodeficiências predominantemente de Anticorpos .....	21
4.2.3) Outras síndromes de imunodeficiência bem definidas.....	22
4.2.4) Doenças de Desregulação Imunológica .....	23
4.2.5) Defeitos congênitos de número e/ou função dos fagócitos .....	23
4.2.6) Defeitos da imunidade inata.....	24
4.2.7) Doenças autoinflamatórias .....	24
4.2.8) Deficiências do Complemento .....	25
4.3) Defeitos congênitos de número e/ou função dos fagócitos .....	26
4.3.1) Papel dos fagócitos no sistema imunológico.....	26
4.3.2) Imunodeficiências causadas por alterações em número e função de fagócitos .....	28
4.3.3) Manifestações orais nas imunodeficiências primárias de fagócitos.....	44
5) Metodologia .....	46
5.1) Coleta de dados .....	48
6) Resultados .....	49
6.1) Evolução da estratégia de busca:.....	49
6.2) Neutropenias Congênitas Graves (ELA2 - elastase 2).....	52
6.3) Neutropenias Congênitas Graves (GFI1: repressão da Elastase).....	53
6.4) Síndrome de Kostmann .....	55
6.5) Deficiência de G6PC3 - Neutropenia com malformações cardíacas e urogenitais .....	56
6.6) Doença de estocagem de Glycogenio tipo 1b (gene -G6PT1: Glucose-6-phosphate transporter 1) .....	59
6.7) Neutropenia Cíclica.....	60
6.8) Neutropenia ligada ao X/ mielodisplasia .....	62
6.9) Deficiência da proteína P14 .....	65
6.10) Deficiência de adesão leucocitária tipo 1 .....	66
6.11) Deficiência de adesão leucocitária tipo 2 .....	67
6.12) Deficiência de adesão leucocitária tipo 3 .....	69
6.13) Deficiência de Rac2 .....	71
6.14) Deficiência de $\square$ -Actina.....	72
6.15) Periodontite juvenil localizada – Formylpeptide FPR1: Chemokine receptor..	73
6.16) Síndrome de Papillon-Lefèvre .....	74
6.17) Deficiência de granulos específicos - CEBPE: ( <i>myeloid transcription factor</i> )	76
6.18) Síndrome de Shwachman-Diamond.....	77
6.19) Doença granulomatosa crônica ligada ao X (CGD).....	79



6.20) Doença granulomatosa crônica autossômica (CGD) – CYBA [(Electron transport protein (p22phox))]	80
6.21) Doença granulomatosa crônica autossômica (CGD) – NCF1: Adapter protein (p47phox)	82
6.22) Doença granulomatosa crônica autossômica (CGD) – NCF2: Activating protein (p67phox)	84
6.23) Deficiência da cadeia $\beta$ 1 do receptor de IL-12 and IL-23	85
6.24) Deficiência de IL-12p40	87
6.25) Deficiência do receptor 1 de IFN- $\gamma$	89
6.26) Deficiência do receptor 2 de IFN- $\gamma$	90
6.27) Deficiência de STAT1	92
6.28) Síndrome de hiper IgE Autossômica Dominante	93
6.29) Síndrome de Hiper IgE autossômica recessiva	94
6.30) Proteínose Alveolar Pulmonar	96
6.31) Análise global e comparativa dos resultados:	98
6.32) Validação da estratégia inicial de busca	112
7) Discussão	1167
Referência Bibliográficas	123

## **DEDICATÓRIA**

### **AOS MEUS QUERIDOS PAIS**

#### **ALBERTO E SILVINA,**

*Isto não seria possível sem vocês...*

*Obrigada pela vida, pelos ensinamentos e pelo amor incondicional. Obrigada por acreditarem sempre em mim e por me apoiarem em cada uma das minhas decisões.*

*Dedico esta conquista a vocês, meus amados pais!*

*Obrigada por tudo. Amo muito vocês!*

#### **A minha irmã Laura,**

*Obrigada pelo seu eterno incentivo, pela sua torcida e pelo seu carinho...*

*Amo muito você!*

#### **Ao meu amado marido Giovanni,**

*Obrigada pelo amor, carinho e companheirismo... Obrigada por acreditar em mim, por estar ao meu lado nos momentos mais difíceis, por compreender as minhas ausências e por me fazer assim, simplesmente muito feliz...*

*Eu te amo!*

## **AGRADECIMENTOS**

A **Deus**, pois sempre guiou os meus passos em todas as oportunidades que me proporcionou...

A minha querida orientadora **Maria Ignez Capella Gaspar Elsas**, por toda a paciência, dedicação, orientação e incentivo durante esses dois anos de mestrado. Muito obrigada por ter ficado sempre ao meu lado e ajudado a superar cada um dos obstáculos, pelos ensinamentos, por ter vibrado com cada vitória, mas também por todas as críticas que com certeza também foram importantes para a minha formação. O meu eterno agradecimento e admiração. Muito obrigada!

Ao meu querido co-orientador, **José Marcos Telles da Cunha**, por todos os seus ensinamentos e carinho. Obrigada por ter sido muito importante para a minha chegada até essa instituição e por sempre torcer pelo meu sucesso.

A minha querida família, dinda **Maria**, dindo **Albino** e avó **Laura** por torcerem muito pelo meu sucesso, por todo amor e carinho de sempre.

As minhas queridas amigas de coração e de profissão, **Ana e Dani**. Amigas que eu conquistei na faculdade e vão ficar para a vida toda. Obrigada por tudo que vivemos juntas e por estarem sempre ao meu lado, por me ouvirem, por me divertirem, por vibrarem com as minhas vitórias e por nunca terem me deixado desanimar. Eu amo muito vocês!

A todas as minhas queridas amigas: **Chris Belinho, Márcia Valéria e Cris Menezes**, pela amizade incondicional... Obrigada por estarem sempre ao meu lado, me aturando e torcendo pelas minhas vitórias. Amo vocês!

A **CAPES** pela bolsa de estudo concedida durante o curso de mestrado.

A todos que, direta ou indiretamente, contribuíram para a realização desta dissertação, o meu sincero agradecimento!

**Resumo:**

Os fagócitos são elementos fundamentais na resposta imunológica a diversos patógenos. Nas imunodeficiências primárias, defeitos quantitativos ou qualitativos do desenvolvimento do sistema imune, que afetam esta classe de células são responsáveis por um aumento do número de infecções graves ainda na primeira infância, que pode acometer, entre outros sítios, a cavidade oral destes pacientes.

Apesar da grande importância clínica, pela gravidade das manifestações e pela cronicidade da doença, as imunodeficiências primárias apresentam dificuldades importantes para o não-especialista, pela sua relativa raridade na população, pela grande heterogeneidade de mecanismos patogênicos, e pela diversidade de apresentações clínicas. Assim, a frequência e a natureza das manifestações na cavidade oral dependem da natureza do defeito na imunidade, podendo variar consideravelmente de uma doença a outra. No entanto, um estudo detalhado da literatura científica sobre manifestações orais nas diferentes categorias de imunodeficiência primária. Neste trabalho, procuramos suprir parcialmente esta lacuna, fazendo uma revisão sistemática dos relatos de casos das imunodeficiências de células fagocitárias, e estabelecendo a frequência das manifestações orais e dentárias descrita para esta classe de doenças, com o intuito de aprimorar o olhar do odontólogo na abordagem destes pacientes.

**Resultados:** A presente revisão sistemática do nosso estudo permitiu a avaliação de 1721 pacientes e entre estes pacientes, 653 pacientes (37,9%) apresentaram relato de alguma manifestação oral e/ou dentária na descrição clínica do caso. A doença periodontal foi a manifestação oral mais frequente

(54,5%), seguida da perda precoce de dentes decíduos, encontrada em 142 pacientes (21,7%) e da gengivite, encontrada em 72 pacientes (11,0%), além da presença de aftas (8,1%) e a candidíase oral (7,5%)

**Palavras-chave:** imunodeficiência primária, defeitos congênitos de fagócitos, infecções, manifestações orais

**Abstract:**

Phagocytic cells are essential elements in the host response to a wide variety of pathogens. In Primary Immune Deficiency (PID) diseases, quantitative or qualitative defects in the development of the immune system, affecting phagocytes, account for an increase in the number of severe infections in infancy and childhood, which may involve, among other sites, the oral cavity.

Despite their great clinical relevance, in view of the diverse manifestations and chronicity of the disease, PID present important practical difficulties for the nonspecialist practitioner, due to their relative scarcity in the general population, great heterogeneity in pathogenetic mechanisms, and diversity of presentation. Therefore, the frequency and nature of oral manifestations depend on the nature of the defect in immunity, varying considerably among specific PID. To our knowledge, there is no systematic study of the existing scientific literature with respect to oral manifestations in different subtypes of PID. In this study, we attempted to fill this gap, by carrying out a systematic review of case reports of PID affecting phagocytes, and establishing the frequency of the different oral and dental manifestations in this group of PID, with the goal of providing dental health professionals with more accurate information concerning these patients.

**Results:** Case reports describing 1721 patients enabled us to detect reports of oral or dental manifestations in the clinical description of 653 patients (37,9%). Periodontal disease was the most frequent oral manifestation (54,5%), followed by the early loss of deciduous teeth, which was found in 142 patients (21,7%) and gingivitis, found in 72 patients (11,0%). Ulcerations (8,1%) and oral candidiasis (7,5%) were also reported. This analysis also provided evidence that recent advances in biomedical research, with an increasing focus

on molecular analyses, significantly influenced the content of case reports, which are nowadays more often focused on the identification of mutated genes, rather than on the detailed description of clinical findings. As a result, online and computer-assisted information retrieval strategies do not necessarily recover the same references, when articles are searched on the basis of clinical descriptions, or on the basis of well-characterized molecular defects.

**Keywords:** primary immune deficiency, congenital phagocyte defects, infection, oral manifestations.

## 1) Introdução

Antes do advento da antibioticoterapia, é provável que muitos indivíduos com defeitos congênitos afetando o desenvolvimento ou a função do sistema imune morressem nos primeiros meses ou anos de vida, devido à susceptibilidade exagerada a determinados patógenos. Porém, estas mortes não eram corretamente atribuídas a uma doença imunológica, já que muitas crianças saudáveis também morriam de infecção (Janeway *et al*, 2007).

Na infância, o sistema imune encontra os antígenos ambientais pela primeira vez, configurando diferentes padrões de resposta imune (tolerância, imunidade ou hipersensibilidade) e/ou adquirindo a memória imunológica para aqueles que efetivamente induziram sensibilização. As crianças, em contato com outras crianças na família ou na creche, estão expostas a muitos patógenos, sendo, portanto, vulneráveis a infecções. A infecção, recorrente ou persistente, é o principal sinal sugestivo de imunodeficiência primária (IDP), e o maior motivo de procura por uma avaliação médica. As infecções em portadores de IDP também podem ser devidas a microorganismos oportunistas, com uma evolução clínica atípica. Ainda que muitas crianças com infecção de repetição apresentem um sistema imune normal, é importante reconhecer aquelas crianças que possam apresentar um quadro de IDP, investigá-las e, se confirmado o diagnóstico, tratá-las precocemente e de forma adequada (Janeway *et al*, 2007; Stiehm *et al*, 2004)

As IDPs compõem um amplo grupo de desordens genéticas heterogêneas, que afetam tanto os componentes da imunidade inata (como os neutrófilos, macrófagos, células dendríticas, células NK, proteínas do complemento), como os da imunidade adaptativa (como os linfócitos B e T)



(Geha *et al*, 2007). Trata-se de uma classe de doenças monogênicas, com padrão de herança variável, podendo ser ligado ao cromossomo X, ou autossômico (recessivo ou, mais raramente, dominante), ou ainda ser resultante de novas mutações (Bonilla *et al*, 2003). Em alguns casos, estados de IDP não seguem um único padrão de herança, embora sejam claramente influenciados por fatores genéticos (Stiehm *et al*, 2004), o que indica efeitos compartilhados por múltiplas mutações distintas.

Estes defeitos de desenvolvimento do sistema imune e de maturação da resposta imunológica acarretam manifestações clínicas bastante distintas, de acordo com o compartimento afetado. Tais diferenças na apresentação clínica servem de base para o diagnóstico clínico inicial, orientando a avaliação progressiva da função imunológica destes pacientes (Janeway *et al*, 2007)

As manifestações clínicas mais comuns, mas não as únicas, das imunodeficiências são as infecções. As IDPs, na infância, geralmente apresentam-se com infecções incomuns, recorrentes e graves, ou infecções causadas por microorganismos de baixa virulência, assim como alterações do sistema imunológico associadas a síndromes genéticas (Stiehm *et al*, 2004)

O odontólogo é um dos profissionais da área de saúde que tem maior oportunidade de detectar, numa fase relativamente precoce, as manifestações clínicas da IDP que acometem a cavidade oral, e, conseqüentemente, orientar os pacientes e suas famílias a buscar uma investigação mais aprofundada da doença. Isto se explica pela freqüência com que manifestações de infecção e alterações na cavidade oral se apresentam nos quadros de IDP. Desta forma, é de interesse estabelecer até que ponto estas manifestações são constantes na

literatura especializada e de que forma a informação científica a respeito pode contribuir para uma melhor capacitação desses profissionais na sua prática.

Este trabalho traz uma análise sistemática da literatura científica sobre as manifestações orais e dentárias associadas a uma categoria específica de IDP, os defeitos congênitos do número e ou função dos fagócitos (tabela V da Classificação de Imunodeficiência Primária) (Notarangelo *et al*, 2009) (**Anexo 1**). Ao fazer esta análise, buscamos identificar as alterações orais e dentárias mencionadas nos relatos de casos de pacientes portadores das diferentes doenças causadas pela alteração de fagócitos.

Os fagócitos possuem um papel fundamental na defesa contra bactérias e fungos (Notarangelo *et al*, 2009). Os defeitos quantitativos e qualitativos das células fagocitárias resultam em infecções graves e recorrentes de origem bacteriana e fúngica (principalmente por *Candida* e *Aspergillus*), localizadas no trato respiratório, tecido subcutâneo, pele, membranas mucosas e linfonodos. (Notarangelo *et al*, 2009; Szczawinska-Poplonik *et al*, 2009).

As alterações intra-orais e dentárias são achados frequentes nos pacientes com deficiência de número ou função de células fagocitárias. A gengivite, a doença periodontal, as infecções orais de repetição (candidíase e herpes), úlceras aftosas e hipoplasia dentária são algumas destas alterações. Estas alterações podem indicar um quadro de imunodeficiência primária a ser investigado, assim como podem também colaborar para a confirmação de um diagnóstico. (Szczawinska-Poplonik *et al.*, 2009).

A literatura brasileira carece de uma referência acessível e atualizada sobre as possíveis alterações orais e dentárias, que podem ser encontradas durante consultas odontológicas de rotina, e que devem ser entendidas como

sinais de alerta para IDPs, inclusive para as doenças de fagócitos. Nesta situação, a importância do olhar clínico do cirurgião-dentista deve vir respaldada por informação confiável, resumida a partir de estudos originais. Como estas doenças costumam evoluir desfavoravelmente, se não forem diagnosticadas numa fase precoce, este trabalho tem por objetivo fornecer aos colegas envolvidos na assistência odontológica, informações científicas de grande interesse para sua prática.

## **2) Justificativa**

Existem muitos desafios para os profissionais que se especializam na pesquisa, educação e cuidados clínicos e terapêuticos dos pacientes com IDPs. O primeiro destes desafios é acompanhar o rápido desenvolvimento da genética, na tentativa de reconhecer os defeitos moleculares envolvidos nestas doenças. O segundo desafio é traduzir estas descobertas genéticas e moleculares em novas terapias eficazes para os pacientes com imunodeficiência. O terceiro e, provavelmente, o maior desafio é convencer o sistema público de saúde da necessidade de financiar mais pesquisas e da importância de mais educação e de maior suporte a estes pacientes. (Shearer, 2007)

As IDPs são desordens intrínsecas que afetam o sistema imunológico em graus variados de gravidade. Estas doenças, por serem raras e complexas, acarretando um consumo de recursos diagnósticos e terapêuticos desproporcional ao número de indivíduos afetados, podem ser consideradas uma questão importante para o gerenciamento de custos para a saúde pública.

Numa fração importante de casos, as IDPs não são corretamente, ou precocemente, diagnosticadas e, uma grande parcela dos pacientes acometidos passa por múltiplas infecções e internações antes de receber um diagnóstico adequado. O diagnóstico adequado e precoce é fundamental para a redução da morbimortalidade destas doenças.

Neste sentido, diversos países, já reconheceram o impacto destas desordens na população, o que permitiu a organização de políticas públicas voltadas para a abordagem e o acompanhamento destes pacientes. (Lindegren *et al*, 2004). No Brasil, no entanto, as IDPs ainda não conquistaram seu espaço entre as políticas de saúde pública.

As IDPs estão associadas a diversas alterações que acometem os tecidos moles e duros da cavidade oral, bem como a forma, estrutura e o número de dentes. Em proporção significativa de casos, estas alterações podem indicar um possível quadro de IDP a ser investigado. Por exemplo, a doença periodontal agressiva, quando presente em crianças, pode sugerir uma possível deficiência de fagócitos. As manifestações intra-orais e dentárias formam, portanto, um conjunto de alterações importantes, frequentemente encontradas nas Imunodeficiências Primárias. (Szczawinska-Poplonyk *et al*, 2009).

Durante as últimas décadas, muitos estudos voltaram-se para as manifestações orais da infecção pelo vírus da imunodeficiência humana (HIV). Certas alterações encontradas na Síndrome de Imunodeficiência Adquirida, tais como a candidíase oral, as úlceras orais e a doença periodontal, também podem ser encontradas nos pacientes com IDP. Porém, ainda que estas

manifestações intra-orais e dentárias sejam freqüentes nestes últimos, existem poucos estudos nesta área.

Durante o período em que acompanhei, como voluntária, o Ambulatório de Imunodeficiência Primária do IPPMG, pude observar a dificuldade no acompanhamento dos pacientes com suspeita de um possível quadro de IDP, bem como a angústia de sua famílias. Os pacientes costumam chegar ao serviço já numa fase avançada da evolução da doença, sem um diagnóstico preciso, já com seqüelas de difícil tratamento e, muitas vezes, sem a possibilidade de acesso a todos os exames necessários.

Diante da necessidade de entendermos a epidemiologia dos achados das manifestações orais e dentárias em IDP, optamos por realizar um estudo de revisão sistemática das imunodeficiências de fagócitos - Tabela V da Classificação de Imunodeficiência Primária (Notarangelo, 2009), entendendo o papel-chave destas células na resposta imunológica a infecções orais, sobretudo na doença periodontal.

### **3) Objetivos:**

#### **3.1) Geral**

Realizar uma revisão sistemática da literatura científica, para identificar as manifestações orais e dentárias nos relatos de casos de pacientes com defeitos congênitos de número e/ou função de fagócitos.

#### **3.2) Específico:**

- Determinar a frequência de manifestações orais e dentárias descritas em relatos de casos da literatura científica de pacientes com defeitos congênitos de número e/ou função de fagócitos.

- Definir as frequências das diferentes manifestações orais e dentárias relatadas para cada um dos principais defeitos congênitos de número e/ou função de fagócitos.

### **4) Quadro teórico**

#### **4.1) Conceito e histórico**

As imunodeficiências primárias (IDPs) formam um grupo de doenças que, devido a uma ou mais anormalidades do sistema imunológico, aumentam a susceptibilidade a infecções. (Stiehm *et al*, 2004)

Antes do advento da antibioticoterapia, é provável que muitos indivíduos com defeitos congênitos da imunidade morressem nos primeiros meses ou anos de vida, devido à susceptibilidade exacerbada a determinados patógenos. Porém, estas mortes não eram atribuídas a uma debilidade específica do sistema imune, já que muitas crianças saudáveis também morriam de infecção

(Janeway, 2007). Apenas após a Medicina ter possibilitado a cura de infecções graves como pneumonia, meningite, celulite e outras, é que estas doenças puderam ser melhor identificadas (Stiehm *et al*, 2004).

Mesmo assim, algumas síndromes de imunodeficiência como a candidíase crônica mucocutânea (Thorpe e Handle, 1929), a ataxia-telangiectasia (Syllaba e Henner, 1926) e a Síndrome de Wiskott-Aldrich (Wiskott, 1937), foram descritas antes mesmo de 1940 (Stiehm *et al*, 2004). Após esta década, foi descrito um caso de um paciente com defeito de imunidade celular por Glanzmann e Riniker (1950) e um caso de agamaglobulinemia em uma criança suíça por Hitzig (1958).

A primeira doença de IDP propriamente dita, ou seja, independentemente de acometimento primário de outros sistemas, foi descrita somente em 1952 por Ogden C. Bruton, que relatou o caso de um menino que não produzia anticorpos, que mais tarde foi denominada de Agamaglobulinemia ligada ao X de Bruton. Desde então, já foram caracterizadas mais de 130 doenças que afetam o desenvolvimento e/ou a função do sistema imunológico (Janeweay *et al*, 2004; Notarangelo, 2010)

Estes defeitos de desenvolvimento do sistema imune e/ou de maturação da resposta imunológica acarretam manifestações clínicas bastante distintas, de acordo com o compartimento afetado; contudo, esta heterogeneidade não impede a realização de um diagnóstico clínico inicial, e, pelo contrário, fundamenta e orienta a avaliação progressiva da função imunológica destes pacientes. Por exemplo, infecções de repetição por bactérias extracelulares sugerem deficiência predominantemente de anticorpos (deficiências humorais), ou deficiência de proteínas do sistema complemento. Por outro lado, infecções

por bactérias intracelulares e microorganismos oportunistas sugerem deficiência da imunidade celular. Nas deficiências de fagócitos é comum a história de abscessos de repetição. As deficiências predominantemente humorais representam cerca de 60% das imunodeficiências primárias, seguida das deficiências celulares e de fagócitos, responsáveis por cerca de 20 e 18%, respectivamente. As deficiências de sistema complemento são as mais raras, somando cerca de 1% dos casos de IDP, na maior parte das séries de pacientes encontradas na literatura. (Bonilla *et al.* 2005).

O diagnóstico precoce das IDPs é a chave para a sobrevivência desses pacientes, pois permite uma redução, tanto das complicações inerentes às múltiplas infecções e internações, quanto da mortalidade associada a estas doenças, além de permitir, nos casos com indicação, a realização de transplante de células-progenitoras hematopoiéticas (Buckley, 2006). O período entre o início dos sintomas e o diagnóstico de IDP é decisivo: quanto mais precoce for o diagnóstico, maior a chance de sobrevida destes pacientes, sobretudo naqueles pacientes portadores de Imunodeficiência Combinada Grave (SCID) (Muller e Friedrich, 2005; Elder *et al.*, 2000).

Atualmente, temos no transplante de células-tronco hematopoiéticas (TCTH) e na terapia gênica (Chinen e Puck, 2004; Qasim *et al.*, 2009) opções de tratamentos curativos, sobretudo para os casos mais graves, nos quais as reposições de imunoglobulina e a antibioticoprofilaxia não são suficientes para manter o paciente livre de infecções e de suas complicações.

A Fundação Jeffrey Modell, em colaboração com a Cruz Vermelha Americana, identificou e divulgou os “10 sinais de alerta” das IDPs (<http://www.jmfworld.org>). A presença de mais de um desses sinais aponta para a



investigação mais apurada do paciente em questão. Esses critérios foram adaptados para a população brasileira pela Associação Brasileira de Alergia e Imunopatologia (ASBAI), pela Sociedade Brasileira de Pediatria (SBP) e pelo Grupo Brasileiro de Estudos de Imunodeficiências Primárias (BRAGID). (<http://www.imunopediatria.org.br>). Este documento conjunto tem sido divulgado essencialmente junto à classe médica, porém existem poucas informações divulgadas a respeito do alcance desta iniciativa. (**figura 1**)

**Figura 1: Sinais de alerta para a investigação de IDP**

**Os 10 sinais de Alerta para  
Imunodeficiência Primária na Criança :**

1. Duas ou mais Pneumonias no último ano
2. Quatro ou mais novas Otites no último ano
3. Estomatites de repetição ou Monolíase por mais de 2 anos
4. Abscessos de repetição ou ectima
5. Um episódio de infecção sistêmica grave (meningite, osteoartrite, septicemia)
6. Infecções intestinais de repetição / diarreia crônica
7. Asma Grave, Doença do colágeno ou Doença auto-imune
8. Efeito adverso ao BCG e ou infecção por Micobactéria
9. Fenótipo clínico sugestivo de síndrome associada a Imunodeficiência
10. História Familiar de Imunodeficiência

*(<http://www.jmfworld.org>. sd)*

## 4.2) Classificação

Por conta do reconhecimento acelerado de novos defeitos genéticos, desde 1970, um comitê de especialistas se reúne a cada dois anos para atualizar a classificação das IDP, baseada nos principais mecanismos imunológicos implicados (Notarangelo *et al*, 2009). A mais recente atualização (**Anexo 1**), publicada em dezembro de 2009, classifica as IDP em oito grupos, de acordo com o componente do sistema imunológico primariamente envolvido: a) imunodeficiências combinadas de células T e B (tabela I), b) deficiências predominantemente de anticorpos (tabela II), c) outras síndromes bem definidas (tabela III), d) doenças de desregulação imune (tabela IV), e) defeitos congênitos do número e/ou função de fagócitos (tabela V), f) defeitos na imunidade inata (tabela VI), g) doenças autoinflamatórias (tabela VII), h) deficiências de complemento (tabela VIII) (Notarangelo *et al*, 2009)

### 4.2.1) Imunodeficiências combinadas de células T e B

As Imunodeficiências Combinadas constituem um grupo heterogêneo de doenças, caracterizadas pela falha na imunidade mediada por células T e com comprometimento da função das células B, podendo inclusive acometer as células NK e mesmo a série mielóide. Este grupo de doenças estão agrupadas na tabela I da classificação de IDP (Notarangelo, 2009) (**anexo 1**), onde estão contidas as formas mais graves de IDP, devido ao importante papel das células T na indução e modulação das respostas imunes específicas. (Stiehm *et al*, 2004)

Este grupo de doenças possui um início precoce, ainda nos primeiros meses de vida, não raro, muitas vezes associado a um quadro de diarreia prolongada, pneumonia intersticial, candidíase persistente e falha ao prosperar.

A Imunodeficiência Combinada Grave (SCID), a principal representante deste grupo, é geralmente fatal ainda no primeiro ano de vida, se não for realizado transplante de células-progenitoras hematopoiéticas (Kumar, 2006)

#### **4.2.2) Imunodeficiências predominantemente de Anticorpos**

As imunodeficiências resultantes da deficiência humoral ou de anticorpos representam o grupo mais numeroso entre as IDPs, cujas diferentes doenças estão agrupadas na tabela II da classificação de IDP (Notarangelo, 2009) (**anexo 1**). Estas doenças podem ser detectadas precocemente, entre os 6 e 12 meses de idade, devido à perda gradual da IgG de origem materna, ou podem ser identificadas mais tardiamente. Este grupo apresenta um espectro clínico bastante variável, que abrange desde pacientes assintomáticos até manifestações clínicas bastante graves. (Kumar, 2006)

A agamaglobulemia ligada ao X caracteriza-se por infecções recorrentes por bactérias encapsuladas, devido a uma interrupção na diferenciação dos linfócitos B, resultando em baixos níveis de todas as classes de imunoglobulinas ou ausência total de produção de anticorpos. (Stiehm *et al*, 2004)

A deficiência seletiva de IgA é a mais freqüente IDP, e é definida pela dosagem de IgA sérica menor que 7 mg/dl em crianças com 4 anos ou mais. A maioria dos pacientes com deficiência de IgA são assintomáticos, mas

apresentam uma maior incidência de infecções, especialmente sinopulmonares, doenças autoimunes, atopia e doença celíaca. (Young, 2008)

#### **4.2.3) Outras síndromes de imunodeficiência bem definidas**

É um grupo heterogêneo de síndromes clinicamente bem caracterizadas e com mapeamento genético definido, porém que não atendem aos critérios necessários para integrarem aos outros grupos de IDP, compondo as doenças da tabela III da classificação de IDP (Notarangelo, 2009) (**anexo 1**).

Neste grupo destaca-se a Síndrome de Wiskott-Aldrich, que se caracteriza por trombocitopenia (com microplaquetas), eczema e imunodeficiência (infecções recorrentes e um risco aumentado de autoimunidade e neoplasia) (Notarangelo, 2010). Esta síndrome apresenta um padrão de herança ligado ao cromossomo X e um fenótipo variado que se correlaciona com o tipo de mutação no gene que codifica a proteína da Síndrome de Wiskott –Aldrich (WASp). (Stiehm *et al*, 2004)

A Síndrome de Hiper IgE caracteriza-se pelo nível elevado de IgE associado a eczema e susceptibilidade a infecções cutâneas e pulmonares (com formação de pneumatoceles) por *S. aureus* e *Candida*. Possui padrão autossômico dominante e recessivo. A Síndrome de Hiper IgE autossômica dominante é resultado do defeito do gene STAT-3 e apresenta retenção de dentes decíduos, escoliose, risco aumentado de fraturas ósseas, hiperextensibilidade das articulações e aspecto facial característico. O padrão autossômico recessivo está associado a mutação do gene de Tyk-2 (Notarangelo, 2010).

#### **4.2.4) Doenças de Desregulação Imunológica**

Algumas formas de imunodeficiência agrupadas na tabela IV da classificação de IDP (Notarangelo, 2009) (**anexo 1**) caracterizam-se por manifestações auto-imunes significativas devido a um distúrbio de homeostase imunológica (Notarangelo, 2010).

A desregulação da homeostase dos linfócitos pode gerar três conseqüências principais: acúmulo anormal de linfócitos, autoimunidade pela falha de remoção de linfócitos autorreativos e aumento na ocorrência de linfomas pela sobrevivência inapropriada de linfócitos transformados (Stiehm *et al*, 2004).

A síndrome linfoproliferativa autoimune (ALPS) é uma representante deste grupo de doenças. Os sintomas surgem precocemente, por volta dos 24 meses de idade. A linfadenomegalia e/ou esplenomegalia persistente, podendo ser acompanhado por hepatomegalia, sem evidências de doença hepática e aumento de volume do timo são alguns dos achados clínicos da ALPS. A maioria dos pacientes apresenta linfocitose T e B, eosinofilia e/ou monocitose. A presença de auto-anticorpos é freqüente, sobretudo os anti-cardiolipina. O perfil laboratorial típico é a presença de número aumentado de células T duplo negativos no sangue periférico, ou seja, linfócitos T periféricos que não expressam CD4 nem CD8 (Notarangelo, 2010).

#### **4.2.5) Defeitos congênitos de número e/ou função dos fagócitos**

Os pacientes com deficiência de número e/ou função de células fagocitárias sofrem de infecções recorrentes e graves por bactérias (*S. aureus*

e *Serratia*, principalmente) e fungos, predominantemente na pele e trato respiratório (pneumonia), abscessos profundos, estomatites orais de repetição, doença periodontal e osteomielite (Notarangelo, 2010; Fleisher *et al*, 2007).

Por ser o objeto de estudo na presente dissertação, este grupo, que corresponde às doenças agrupadas na tabela V da classificação de IDP (Notarangelo *et al*, 2009) (**anexo 1**) será abordado em um capítulo à parte.

#### **4.2.6) Defeitos da imunidade inata**

A imunidade inata é a primeira barreira de defesa imunológica encontrada pelos agentes infecciosos. Os seus mecanismos são rapidamente ativados na presença de algum patógeno, antes mesmo da ativação do sistema imune adaptativo. Os componentes da imunidade inata incluem as barreiras epiteliais, os neutrófilos, macrófagos e células NK, o sistema complemento e algumas citocinas (TNF, IL-1, IL-12 e IFN-gama). Os receptores da resposta imune inata reconhecem estruturas presentes em diversos tipos de agentes patogênicos, ausentes em mamíferos, conhecidas como PAMPs (padrões moleculares associados aos patógenos). Os principais receptores que reconhecem os PAMPs são *Toll-like-receptor* (TLR). (Stiehm *et al*, 2004)

Os defeitos da imunidade inata compõem a tabela VI da classificação de IDP (Notarangelo *et al*, 2009) (**anexo 1**).

#### **4.2.7) Doenças autoinflamatórias**

As doenças autoinflamatórias são caracterizadas por processos inflamatórios espontâneos, sem que haja envolvimento importante da imunidade inata (Stojanov e Kastner, 2005). Este grupo de doenças estão

agrupadas na tabela VII da classificação de IDP (Notarangelo *et al*, 2009) **(anexo 1)**

A Febre Familiar do Mediterrâneo é a doença mais comum e possivelmente a mais estudada dentro deste grupo de doenças autoinflamatórias. Os sintomas mais freqüentes são episódios de febre alta, acompanhados de peritonite, sinovite e pleurite. A dor abdominal pode ser confundida com apendicite aguda, principalmente quando associada a vômitos e diarréia. Os ataques ocorrem em intervalos irregulares e podem variar de ataques semanais até períodos de remissão de semanas a meses sem nenhuma explicação aparente (Padeh e Berkun, 2007).

#### **4.2.8) Deficiências do Complemento**

Uma variedade de defeitos intrínsecos do sistema complemento já foi relatada na literatura. As deficiências do sistema Complemento estão relacionadas na tabela VIII da classificação de IDP (Notarangelo, 2009) **(anexo 1)**. A deficiência em um dos componentes da via clássica compromete a opsonização das bactérias, a atividade bactericida e a remoção dos imunocomplexos. As deficiências dos componentes iniciais da via clássica (C1q, C1rs, C1s, C2 e C4) causam manifestações semelhantes às encontradas no lúpus eritematoso sistêmico. Já as deficiências dos componentes finais da via do complemento (C5-C9) causam infecções recorrentes por *Neisseria* (Notarangelo, 2010).

As deficiências de lectina ligadora de manose (MBL), componente dependente da via MBL do complemento, estão associadas ao aumento do

risco de infecções bacterianas, especialmente durante os primeiros anos de vida (Notarangelo, 2010)

#### **4.3) Defeitos congênitos de número e/ou função dos fagócitos**

##### **4.3.1) Papel dos fagócitos no sistema imunológico**

A pele e as mucosas representam a primeira linha de defesa e atuam como uma barreira efetiva contra a maioria dos microorganismos. Os patógenos que conseguem atravessar as superfícies epiteliais e de mucosa, na maioria das vezes, são eficientemente removidos pelos mecanismos inatos que atuam nos tecidos.

Desta forma, as doenças infecciosas só ocorrem quando o microorganismo é capaz de “escapar” das defesas inatas do hospedeiro para, em seguida, estabelecer uma infecção e multiplicar-se (Janeway *et al*, 2007).

Se um patógeno atravessa a barreira epitelial e inicia o seu processo de replicação nos tecidos, ele poderá ser rapidamente reconhecido pelos fagócitos mononucleares, ou macrófagos, residentes nos tecidos. Estas células maturam a partir dos monócitos do sangue e deixam a circulação para migrar para os tecidos do organismo. Os macrófagos são numerosos em vários sítios, principalmente no tecido conjuntivo, na camada submucosa do trato gastrointestinal, nos alvéolos, nos sinusóides hepáticos (onde são conhecidos como células de Kupffer) e no baço, onde são responsáveis por remover as células senescentes do sangue. A segunda principal família de fagócitos são os leucócitos polimorfonucleares neutrófilos (PMN) ou, abreviadamente, neutrófilos. São células de vida curta, abundantes no sangue e recrutadas para o tecido somente no contexto da infecção (Janeway *et al*, 2007).



Os microorganismos que invadem os tecidos são reconhecidos pelos macrófagos, porém estes são rapidamente reforçados pelo recrutamento de um grande número de neutrófilos para o local da infecção. O reconhecimento dos patógenos pelos macrófagos e neutrófilos ocorre através de receptores de superfície que identificam moléculas de superfície expressa pelos patógenos (receptores para padrões moleculares associados a patógenos). A ligação a estes receptores ativa os mecanismos de fagocitose. A fagocitose é um processo no qual o patógeno ligado é envolvido pela membrana do fagócito e em seguida interiorizado dentro da vesícula assim formada, o fagossoma. Além disso, os macrófagos e neutrófilos possuem grânulos (enzimas, proteínas e peptídeos) circundados por uma membrana chamados de lisossomas, que podem mediar uma resposta intracelular antimicrobiana quando na fusão com o fagossoma para a destruição do patógeno. O fagossoma torna-se acidificado, após a sua fusão com os lisossomas, matando a maioria dos patógenos.

Além disso, os macrófagos e neutrófilos também produzem uma variedade de produtos tóxicos que ajudam a matar o microorganismo englobado, tais como o óxido nítrico, o ânion superóxido e o peróxido de hidrogênio (Janeway *et al*, 2007).

Os macrófagos e os neutrófilos são fundamentais na imunidade inata, pois reconhecem, ingerem e destroem vários tipos de patógenos, sem o auxílio da imunidade adaptativa, apresentando um papel crucial na defesa inicial contra bactérias e fungos (Notarangelo, 2010).

### **4.3.2) Imunodeficiências causadas por alterações em número e função de fagócitos**

Os pacientes com deficiência de número e/ou função de células fagocitárias sofrem de infecções recorrentes e graves de origem fúngica e bacteriana, com predomínio das infecções cutâneas e de trato respiratório, abscessos profundos e estomatites de repetição (Notarangelo, 2010).

#### **4.3.2.1) Neutropenias Congênitas**

A neutropenia congênita grave é um termo clínico que descreve uma contagem de neutrófilos abaixo de 500/ $\mu$ l, independentemente da causa. Podem ser subdivididas em dois grupos: Neutropenia congênita grave associada ao defeito na maturação de células mielóides (Síndrome de Kostmann) e Neutropenia congênita grave com outras características (Bohn, 2007).

As neutropenias congênitas são imunodeficiências primárias raras, caracterizadas por infecções bacterianas graves de início precoce, e neutropenia persistente devido à deficiência quantitativa de neutrófilos. São doenças geneticamente heterogêneas, com diferentes padrões de herança (autossômica dominante, autossômica recessiva, ligada ao X ou esporádica). (Stiehm *et al*, 2005).

O defeito genético da maioria dos casos de neutropenias congênitas de herança dominante atinge a elastase 2 (*ELA-2*). A elastase de neutrófilos é uma serina-protease expressa em neutrófilos e monócitos, com atividades antimicrobianas e inflamatórias. (Bohn, 2007)

As manifestações clínicas mais freqüentes nas neutropenias congênitas são abscessos superficiais, úlceras orais, infecções cutâneas, onfalite, pneumonia e otite média. Durante a evolução da doença, os pacientes sofrem com abscessos em diversos locais, manifestações mucocutâneas, infecções respiratórias e diarreia (Rezaei et al, 2008).

#### **4.3.2.2) Doença de Kostmann**

A Síndrome de Kostmann é uma forma autossômica recessiva de neutropenia congênita grave, caracterizada por neutropenia persistente e profunda, associada a um característico atraso de maturação celular na medula óssea (Carlsson *et al*, 2007). Esta doença foi primeiramente descrita por Kostmann, em 1956, em uma família com infecções bacterianas graves e neutropenia persistente, devido ao defeito na maturação do estágio promielócito-mielócito. As manifestações clínicas são precoces e se caracterizam pela presença de febre, estomatite, infecções cutâneas e abscesso perirretal (Stiehm *et al*, 2004).

A presença do defeito genético na proteína *HAX-1* (“gene de Kostmann”) ocasiona o quadro de neutropenia congênita, grave devido ao aumento na apoptose dos progenitores mielóides (Bohn *et al*, 2007).

Outro defeito genético raro também associado à esta síndrome é a mutação no gene *GFI-1*, que ocasiona atraso de maturação das células mielóides, escassez de neutrófilos maduros e infecções de repetição (Klein, 2009).

#### **4.3.2.3) Neutropenia com malformações cardíacas e urogenitais**

Este tipo de neutropenia está associada a um defeito genético na via da G6PC3. Os pacientes com deficiência de G6PC3 apresentam neutropenia congênita devido ao atraso da maturação das células mielóides e aumento de apoptose dos neutrófilos periféricos, além de desordens variadas de desenvolvimento que afetam o sistema cardiovascular e/ou urogenital.

De acordo com Boztug e colaboradores, a via G6PC3 é necessária para a viabilidade dos neutrófilos, ressaltando o importante papel da glicose na homeostase dos neutrófilos (Boztug *et al*, 2009).

#### **4.3.2.4) Doença de armazenamento de glicogênio tipo 1B**

A doença de armazenamento de glicogênio tipo 1b (GSD-1b) é uma doença autossômica recessiva, com uma incidência de 1 para 500.000. Predominantemente considerada uma desordem metabólica caracterizada por hipoglicemia, excesso de acúmulo de glicogênio no fígado e rim e perfil metabólico sérico anormal, GSD-1b é também uma doença imunológica, caracterizada por neutropenia e disfunções mielóides. Embora a base genética da doença, mutações no gene do transportador de glicose-6-fosfato (G6PT ou gene SLC37A4), esteja bem estabelecida, apenas o componente metabólico da doença é entendido bioquimicamente. (Choua *et al*, 2010).

#### **4.3.2.5) Neutropenia Cíclica**

A neutropenia cíclica é uma imunodeficiência primária autossômica dominante ou esporádica, caracterizada pela ocorrência de quadros de neutropenia a cada 3 semanas, com duração de 3 a 6 dias, e associada com algumas mutações em ELA-2.

Os pacientes com neutropenia cíclica congênita são geralmente assintomáticos entre os períodos neutropênicos, mas durante o episódio de neutropenia apresentam infecções específicas, principalmente em cavidade oral e mucosas, tais como estomatite aftosa recorrente, úlceras orais, gengivite, doença periodontal, além de abscessos cutâneos recorrentes e ocasionalmente infecções piogênicas graves (Rezaei *et al*, 2004).

#### **4.3.2.6) Neutropenia ligada ao X**

Esta doença caracteriza-se pelo ganho de função da proteína WASP (proteína da Síndrome de Wiskott-Aldrich), ocasionando a perda do mecanismo de auto-inibição da proteína e, conseqüentemente um aumento da polimerização da actina. Além da neutropenia, os pacientes apresentam graus variados de linfopenia, redução da proliferação de neutrófilos e ausência de atividade fagocítica (Klein *et al*, 2009).

#### **4.3.2.7) Deficiência de P14**

A p14 é uma pequena proteína adaptadora endossomal que captura a proteína cinase ativada por mitógenos (MAP cinase), dirigindo-a para o compartimento endossomal. Os pacientes com deficiência de p14 apresentam uma síndrome de imunodeficiência congênita complexa, caracterizada por

defeitos de pigmentação, falha do crescimento, neutropenia congênita grave, atraso na degradação dos patógenos ingeridos, além de imunodeficiência combinada de células T e B. Clinicamente, a deficiência de p14 lembra outras síndromes que apresentam redução de pigmentação e imunodeficiência, como a síndrome de Hermansky-Pudlak tipo 2 (HPS2), a síndrome de Griscelli tipo 2 (GS2), e a síndrome de Chediák-Higashi (CHS) (Teis *et al*, 2002; Bohn *et al*, 2008).

#### **4.3.2.8) Deficiência de adesão leucocitária**

As deficiências de adesão leucocitária (LAD) são um grupo de doenças raras, de herança autossômica recessiva, ocasionada pelo defeito na adesão do neutrófilo e caracterizada por úlceras, retardo de cicatrização e infecções bacterianas recorrentes. O fenótipo dos pacientes é variável e reflete a quantidade de  $\beta_2$  integrinas expressa na superfície celular dos leucócitos. Os pacientes com menos de 1% de expressão evoluem com infecções graves e alto risco de morte. Já aqueles com expressão entre 1-10% evoluem com defeitos na mobilidade leucocitária, aderência e endocitose, ocasionando quadros de doença periodontal, infecções cutâneas e retardo na cicatrização. Os familiares heterozigotos dos pacientes afetados têm expressão de  $\beta_2$  integrinas em torno de 40-60% e são clinicamente normais (Stiehm *et al*, 2004).

Estas doenças classificam-se em LAD-1, LAD-2 e LAD-3, que resultam em defeitos funcionais semelhantes, apesar de se originarem em mutações de genes totalmente distintos.

A deficiência de adesão leucocitária do tipo 1 (LAD-1) é a forma mais comum dentre as deficiências de adesão leucocitária e é decorrente da

mutação no gene ITGB2, que é responsável por codificar a cadeia  $\beta$  da família das  $\beta 2$  integrinas, também chamada de CD18. A ausência ou a síntese anormal de CD18 impede a expressão adequada de CD11 (Notarangelo e Badolato, 2009).

O heterodímero CD11/CD18 é expresso na superfície dos leucócitos e participa de muitos processos de defesa contra patógenos, incluindo adesão leucocitária, migração transendotelial, fagocitose e atividade citotóxica mediada por células (Notarangelo e Badolato, 2009).

A forma grave da doença está associada à ausência completa de CD18 e, estes pacientes cursam com sintomas clínicos mais acentuados e, conseqüentemente apresentam um maior risco de vida quando comparados aos pacientes que possuem uma expressão residual de CD18, suficiente para permitir adesão mediada por  $\beta$ -2 integrinas (Notarangelo e Badolato, 2009; Gazit *et al*, 2010).

A LAD-2 é causada pela mutação no gene FUCT1, que codifica a proteína transportadora de fucose GDP. Os pacientes com esta doença apresentam episódios de infecções recorrentes nos primeiros anos de vida, dismorfismo, baixa estatura e retardo mental significativo. (Gazit *et al*, 2010).

A LAD-3 foi reconhecida recentemente e cursa com defeitos combinados de ativação das integrinas dos leucócitos e plaquetas, impedindo a migração e outras funções. Está associada com mutações no gene KINDLIN3. Os pacientes com LAD-3 apresentam infecções recorrentes graves, tendência a sangramento e leucocitose. (Notarangelo e Badolato, 2009; Gazit *et al*, 2010)

#### **4.3.2.9) Deficiência de Rac-2**

Deficiência de Rac-2 ou Síndrome de Imunodeficiência de neutrófilo manifesta-se por um grave defeito na migração de leucócitos. As proteínas *Rho GTPases* (incluindo Rho, Rac, Cdc42) atuam como controles moleculares em respostas celulares amplas, como a reorganização da actina do citoesqueleto, a transcrição gênica e a proliferação das células. Seus papéis têm sido implicados, cada vez mais, na ativação de processos de sinalização em leucócitos, incluindo a transdução de sinal mediada por integrinas, a sobrevivência celular induzida por fatores de crescimento e o processo de proliferação. Em particular, a alteração funcional de Rac-2, uma Rho GTPase específica de células hematopoiéticas, ocasiona uma disfunção mielóide grave (Gu e Williams, 2002; Razeai *et al*, 2008)

Os pacientes com deficiência de Rac-2 apresentam defeitos importantes na quimiotaxia de neutrófilos, bem como inibição da produção de superóxido, ocasionando abscessos periumbilicais e perirretais, atraso na queda do coto umbilical e formação precária de pus (Gu e Williams, 2002; Razeai *et al*, 2008)

#### **4.3.2.10) Deficiência de $\beta$ -actina**

A Deficiência de  $\beta$ -actina é uma deficiência autossômica dominante da polimerização de actina dos neutrófilos, acarretando um defeito na migração dos leucócitos. Tal como em pacientes com LAD, não há formação de pus no local da infecção.

Os pacientes sofrem com infecções bacterianas e fúngicas recorrentes sem formação de pus, além de retardo mental e fotossensibilidade (Razeai *et al*, 2008).



#### **4.3.2.11) Periodontite juvenil localizada**

A periodontite juvenil localizada é uma forma de doença periodontal de progressão rápida, que afeta a dentição permanente durante o período puberal, resultando na perda de inserção de no mínimo 4 mm em pelo menos dois primeiros molares e incisivos permanentes, independentemente do acúmulo de cálculo subgengival e da presença de inflamação gengival (Passanezi *et al*, 2007)

O mecanismo fisiopatológico da doença permanece desconhecido, porém observa-se, nesta doença, uma perda da quimiotaxia dos neutrófilos devido a uma mutação no receptor quimiotático (FRP1). (Razeai *et al*, 2008)

#### **4.3.2.12) Síndrome de Papillon-Lefrève**

A Síndrome de Papillon-Lefrève foi primariamente descrita por Papillon e Lefrève em 1924. Trata-se de uma doença autossômica recessiva, caracterizada por hiperkeratose palmoplantar difusa e doença periodontal agressiva, afetando as dentições decídua e permanente. A doença é causada por uma mutação pontual no gene da catepsina C, que ocasiona um defeito funcional dos neutrófilos. (Razeai *et al*, 2008; Dhanrajani, 2009)

O início da doença geralmente está associado à erupção dos dentes decíduos, seguido de um quadro de inflamação gengival e rápida destruição do tecido periodontal, acompanhado pela perda precoce dos dentes decíduos. Este processo se repete quando na dentição permanente (Dhanrajani, 2009).

#### 4.3.2.13) Deficiência de grânulos específicos

A Deficiência de grânulos específicos dos neutrófilos (SGD) é uma doença congênita rara. Os pacientes com esta doença possuem neutrófilos com núcleos bilobados atípicos, falta de expressão de pelo menos uma proteína primária e de todas as proteínas secundárias e terciárias dos grânulos, defeitos na quimiotaxia dos neutrófilos e desregulação da atividade bactericida. A falta de muitos constituintes dos grânulos resulta numa diminuição significativa da atividade bactericida independente de oxigênio, além de uma diminuição na expressão de moléculas de adesão e de receptores quimiotáticos na superfície da célula. O defeito é causado por uma mutação em um fator de transcrição especializado essencial à mielopoiese (CEBP ou proteína CCAAT), que regula a síntese de proteínas num período crítico de diferenciação dos neutrófilos, que abrange a parte final da produção de grânulos primários e todo o período de tempo durante o qual os grânulos específicos e os seus componentes são produzidos (Gombart e Koeffler, 2002).

Os pacientes com esta deficiência apresentam infecções bacterianas graves, que cursam com lesões ulcerativas e necrose da pele e mucosas, assim como pneumonias recorrentes, frequentemente causadas por *Staphylococcus aureus* e/ou *Pseudomonas aeruginosa*, com deficiência na formação do pus. Na hematoscopia, a segmentação anormal dos granulócitos é patognomônica. A quimiotaxia é significativamente reduzida, e os grânulos específicos estão ausentes, como evidenciado em imagens de granulócitos obtidas por microscopia eletrônica de transmissão. O diagnóstico definitivo é feito pela análise de mutação do gene CEBP $\epsilon$  (fator de transcrição mielóide). (Gombart e Koeffler, 2002; Razeai *et al*, 2008)

#### **4.3.2.14) Síndrome de Shwachman-Diamond**

A Síndrome de Shwachman-Diamond (SDS) é uma doença autossômica recessiva que inclui insuficiência pancreática exócrina grave, falência de medula óssea, anormalidades esqueléticas e baixa estatura, com alteração no gene SBDS. É considerada, após a fibrose cística, a segunda maior causa de insuficiência pancreática exócrina em crianças (Razaei *et al*, 2008)

Os pacientes com SDS estão em risco de complicações, muitas vezes fatais, como infecções graves, leucemia mielóide aguda e falência de medula óssea (<http://www.shwachman.org/> acessado em 14 janeiro 2011)

#### **4.3.2.15) Doença Granulomatosa Crônica ligada ao X**

A Doença Granulomatosa Crônica (DGC) é uma deficiência de função das células fagocitárias causada pelo defeito no complexo de NAPH oxidase. Este complexo induz a produção de componentes antimicrobianos e a ativação de enzimas líticas, resultando na morte intracelular de bactérias e fungos. Os pacientes com DGC apresentam infecções recorrentes e por vezes graves, que acometem a pele, além abscessos hepáticos e perirretal e pneumonias com susceptibilidade a infecções por micobactérias (Doffinger *et al*, 2005; Razaei *et al* 2008; Holland, 2010).

A forma de DGC ligada ao X é decorrente de um defeito no gene *CYBB* que codifica a *gp91-phox* e responsável por cerca de 65% dos casos da doença.

Em geral, os pacientes com DGC ligada ao X apresentam quadros de infecções graves ainda em idade precoce. (Holland, 2010)

#### **4.3.2.16) Doença granulomatosa crônica autossômica**

A Doença Granulomatosa Crônica é uma desordem geneticamente heterogênea caracterizada pela ocorrência de mutações nos genes estruturais do complexo NADPH oxidase (Razaei et al, 2008). Inicialmente, somente a forma ligada ao X foi descrita. A forma autossômica recessiva foi posteriormente reconhecida no ano de 1968, em meninas. A forma autossômica recessiva deve-se a mutações em um dos três genes: o gene para *p22phox* (CYBA), o gene para *p47phox* (NCF1) e o gene para *p67phox* (NCF2) (Razaei et al, 2008; Ross, 1996). As manifestações clínicas nos pacientes afetados são semelhantes às descritas na forma da doença ligada ao X.

#### **4.3.2.17) Deficiência da cadeia $\beta 1$ do receptor de IL-12 e IL-23**

A Via do interferon- $\gamma$  (IFN- $\gamma$ ) / interleucina-12 (IL-12) tem papel central em muitos aspectos básicos e clínicos das vias de transdução de sinal de citocinas. Esta via é uma peça crucial no sistema imunológico e fundamental para o controle de infecções por micobactérias (Watford et al, 2004; Picard e Casanova, 2004)

A IL-12 regula tanto a imunidade inata como a adaptativa. No contexto da infecção micobacteriana, a principal ação da IL-12 é induzir a produção do IFN- $\gamma$  por diferentes populações celulares do sistema imune. Assim como a IL-12, a IL-23 induz a produção de IFN- $\gamma$  pelas células T. (Watford et al, 2004; Picard e Casanova, 2004; Rezaei et al, 2008) Esta redundância de efeitos tem

como base molecular o compartilhamento de uma subunidade sinalizadora do receptor, a cadeia  $\beta 1$ , que é idêntica entre os receptores de IL-2 e de IL-23.

A deficiência de sinalização por IL-12/IL-23, que resulta de mutações no gene correspondente, acarreta uma IDP caracterizada pela susceptibilidade aumentada a micobactérias e a Salmonella, o que se explica pela deficiência da imunidade mediada pelo IFN- $\gamma$ . (Picard e Casanova, 2004)

#### **4.3.2.18) Deficiência de IL-12p40**

Mutações em IL12p40 também aumentam a suscetibilidade genética às doenças micobacterianas (Picard and Casanova, 2004). Neste caso, o mecanismo é distinto do da deficiência em cadeia  $\beta 1$ , visto se tratar de uma deficiência no ligante e não no receptor, e não afetar, portanto, a sinalização redundante por IL-23. Além de ser crucial para o controle de micobactérias, a via IFN- $\gamma$ /IL-12 também está envolvida na patogênese de doenças auto-imunes, bem como no desenvolvimento e controle do crescimento tumoral. Correlações genótipo-fenótipo têm sido estabelecidas para determinados genes desta via, alguns dos quais têm implicações terapêuticas. (Picard e Casanova, 2004)

#### **4.3.2.19) Deficiência do receptor 1 do IFN- $\gamma$**

As mutações no gene do IFN- $\gamma$ -R1 foram as primeiras a serem identificadas como causa da susceptibilidade aumentada à doença por micobactérias, associada a um padrão mendeliano de herança. (Picard e Casanova, 2004)

As mutações com padrões de herança tanto recessiva como dominante resultam em deficiência do receptor 1 do IFN $\gamma$  (IFN- $\gamma$ R1). A maioria das deficiências recessivas do IFN $\gamma$ R1 acarreta a perda completa de expressão do IFN- $\gamma$ R1 na superfície da célula e conseqüentemente a perda da capacidade de resposta ao IFN- $\gamma$ . Estes defeitos são encontrados na deficiência recessiva completa (RC) do IFN- $\gamma$ R1. A deficiência recessiva parcial do IFN- $\gamma$ R1 acarreta uma resposta reduzida ao IFN- $\gamma$ . (Doffinger *et al*, 2005; Picard e Casanova, 2004)

Os pacientes com deficiência RC de IFN- $\gamma$ R1 têm um fenótipo bastante grave quando comparado aos pacientes com uma deficiência parcial (DP), incluindo o início mais precoce, o aumento do número e da gravidade das infecções e diminuição da sobrevivência (Picard e Casanova, 2004).

#### **4.3.2.20) Deficiência do receptor 2 do INF- $\gamma$**

O receptor de IFN- $\gamma$ R2 pertence também à família de receptores de citocinas classe II e é responsável pela transdução de sinal. A sua organização genética se assemelha à do IFN- $\gamma$ R1. As mutações em IFN $\gamma$ R2 foram identificadas menos frequentemente do que aquelas em IFN- $\gamma$ R1 (Picard e Casanova, 2004).

Os pacientes com deficiência completa de receptor 1 e 2 do IFN- $\gamma$  apresentam infecções disseminadas graves por micobactérias causadas pelo BCG ainda na primeira infância, além da dificuldade de formação de granulomas. Já os pacientes com deficiência parcial, apresentam quadros mais brandos e, geralmente paucibacilares (Doffinger *et al*, 2005).

#### **4.3.2.21) Deficiência de STAT 1**

A STAT1 é fundamental na transdução do sinal mediado pelo IFN. A sua deficiência pode ser completa ou parcial. Os pacientes com deficiência completa também apresentam maior susceptibilidade a infecções virais, diferentemente dos pacientes com deficiência parcial. (Picard e Casanova, 2004)

Clinicamente, os pacientes com deficiência de STAT-1 apresentam infecção disseminada ao BCG e susceptibilidade a infecções por micobactérias. (Doffinger *et al* Kumararatne, 2005, Picard e Casanova, 2004;).

#### **4.3.2.22) Síndrome de Hiper IgE**

As síndromes de Hiper-IgE (HIES) são IDPs raras, caracterizadas por níveis séricos elevados de IgE, dermatite e infecções recorrentes do pulmão. Existem duas formas bem caracterizadas de HIES: uma forma dominante, causada por mutações no gene STAT3, e uma forma recessiva, associada a mutações no gene da Tirosina cinase 2 (Tyk2). Essas duas síndromes possuem diferentes apresentações e evoluções clínicas, e os mecanismos patogénéticos não são os mesmos, embora haja o achado comum de uma elevação de IgE. A forma dominante é caracterizada por um predomínio de alterações não-imunológicas, incluindo alterações nos tecidos esqueléticos, nos tecidos conjuntivos e nos pulmões, além de infecções recorrentes e eczema. Em contraste, a forma recessiva apresenta principalmente importantes infecções virais e complicações neurológicas. (Freeman e Holland, 2008)

#### **4.3.2.22.1) Síndrome Hiper IgE autossômica dominante. (deficiência de STAT3)**

Essa desordem foi primeiramente descrita como síndrome de Jó por Davis *et al*, em 1966, com referência às lesões de pele características. A síndrome foi revisada por Buckley *et al*, em 1972, que acrescentou à caracterização da doença a presença de níveis extremamente elevados de IgE sérica, passando assim a ser diagnosticada com a presença da tríade clássica - eczema, infecções recorrentes do pulmão e IgE elevada, sendo expandida para incluir alterações nos tecidos esqueléticos e conjuntivo, cardíacas e cerebrais. Recentemente foi demonstrado que as mutações em STAT3 são responsáveis pela maioria, senão pela totalidade, dos casos de HIES com herança autossômica dominante, e estas mutações, que são altamente pleiotrópicas, permitem explicar a natureza multissistêmica da doença. (Grimbacher *et al*, 1999; Freeman *et al*, 2008)

#### **4.3.2.22.2) Síndrome Hiper IgE autossômica recessiva (AR hyper-IgE)**

A síndrome de Hiper IgE autossômica recessiva é consideravelmente mais rara do que a forma autossômica dominante de HIES. O quadro é clinicamente distinto, mais grave, e pode estar associado com auto-imunidade e vasculite. Os pacientes possuem níveis séricos elevados de IgE, dermatite atópica grave, infecções estafilocócicas da pele e do pulmão, e infecções virais na pele e mucosas (mas sem anormalidades esqueléticas e dentárias), também apresentando suscetibilidade a bactérias intracelulares. A mortalidade na infância é elevada, geralmente devido à sepse bacteriana ou vasculite do SNC. Foi detectado que nesses pacientes a alteração molecular é no gene da



Tirosina cinase 2 (Tyk2), uma molécula importante na transdução de sinal para a IL-12, IL-6 e interferon alfa. A função fagocítica possivelmente estaria prejudicada, nesta síndrome, por defeitos na produção de citocinas necessárias à ativação dos fagócitos em condições fisiológicas (Heimall *et al*, 2010; Freeman *et al*, 2008; Minegishi e Karasuyama, 2008)

#### **4.3.2.23) Proteinose pulmonar alveolar**

A proteinose alveolar pulmonar é uma síndrome rara, caracterizada pelo acúmulo de lipoproteínas surfactantes que resulta da incapacidade de degradação deste material pelos macrófagos alveolares, insuficiência respiratória e susceptibilidade a infecções. A doença ocorre devido à produção de auto-anticorpos (a forma autoimune é a mais comum) contra o fator estimulador de colônias (GM-CSF) ou pela mutação do gene CSF2RA. (Martinez-Moczygemba and Huston, 2010; Trapnell et al, 2009)

O GM-CSF é crítico para a diferenciação dos macrófagos e suas funções imunológicas e para a homeostase e defesa pulmonar (Martinez-Moczygemba e Huston, 2010; Trapnell et al, 2009)

A forma congênita da doença está associada à mutação do gene CSF2RA, que ocasiona a desregulação da sinalização via GM-CSF. Os pacientes com proteinose alveolar pulmonar apresentam insuficiência respiratória e em casos mais graves, falência respiratória, devido ao acúmulo de surfactantes no espaço alveolar (Martinez-Moczygemba e Huston, 2010; Trapnell et al, 2009)

### **4.3.3) Manifestações orais nas imunodeficiências primárias de fagócitos**

As manifestações orais e dentárias formam um grupo heterogêneo de alterações comumente encontrado nas IDP. Algumas anomalias dentárias, algumas lesões orais e a doença periodontal na infância podem ser sinais indicativos de um quadro de imunodeficiência a ser investigado. (Szcawinska-Poplonik *et al*, 2009).

Estudos demonstram que dentre as lesões mais freqüentes na cavidade oral de crianças saudáveis, destacam-se a candidíase oral, as estomatites aftosas recorrentes, o herpes labial recorrentes e as alterações de desenvolvimento da língua (língua geográfica e fissuras) (Bessa *et al*, 2004; Crespo *et al*, 2005). Nas IDP, estas manifestações iniciam-se em idade bastante precoce, são acompanhadas por processo de necrose tecidual com ulceração e invasão bacteriana, além de envolverem, em grande parte a saúde do tecido periodontal, ocasionando gengivite agressiva e doença periodontal (Szcawinska-Poplonik *et al*, 2009).

Nas IDPs ocasionadas por alterações de número e/ou função de fagócitos, dentre as manifestações descritas na literatura, destacam-se, sobretudo, as doenças do periodonto (gengivite e periodontite), com envolvimento do tecido ósseo de suporte dentário e conseqüentemente a perda precoce de dentes decíduos e permanentes (Szcawinska-Poplonik *et al*, 2009)

Como a doença periodontal depende da resposta imunológica do hospedeiro, é compreensível que muitas IDPs, principalmente as alterações de número e/ou função de fagócitos, comprometam a integridade do periodonto. Este fato relaciona-se a alteração quantitativa ou qualitativa (função) das células fagocitárias.

A doença periodontal é rara em crianças e adolescentes saudáveis. Quando presente corresponde apenas a um quadro de inflamação gengival, associado à placa bacteriana. No entanto, muitas desordens sistêmicas aumentam a susceptibilidade do paciente para a doença periodontal e, por vezes, este envolvimento é mais rápido e agressivo. Embora seja bem estabelecido que a principal causa da doença periodontal é a placa bacteriana, esta relação direta torna-se controversa, naqueles casos em que a doença periodontal está associada a determinadas desordens sistêmicas. Sugere-se que a predisposição sistêmica acelera o processo de destruição causado pelos agentes bacterianos. Porém já se sabe que o desenvolvimento e a evolução da doença periodontal dependem da resposta imunológica do hospedeiro, da integridade dos tecidos, da imunidade humoral e celular e de fatores endócrinos e nutricionais (Schenkein, 2006; Lindhe *et al*, 2005)

O defeito em qualquer etapa de neutralização de patógenos pelas células fagocitárias está associado ao aumento do risco de doença periodontal. (Szczawinska-Poplonik, 2009). Estudos experimentais têm demonstrado o papel dos neutrófilos na patogênese da doença periodontal e na expressão de moléculas inflamatórias (Schenkein, 2006).

Além da doença periodontal, dentre as manifestações que frequentemente acometem a cavidade oral dos pacientes com IDP, destacam-se a candidíase, a estomatite herpética e infecções recorrentes por herpes e a estomatite aftosa recorrente (Szczawinska-Poplonik *et al*, 2009; Aktinson *et al*, 2000).

A candidíase é a infecção fúngica bucal mais comum e também pode ocorrer em crianças saudáveis. A doença pode variar de um quadro leve, com

envolvimento superficial da mucosa a um quadro mais disseminado em pacientes com comprometimento imunológico (Neville, 1995). Dentre as desordens de número e/ou função das células fagocitárias, a candidíase é comumente encontrada nos pacientes com Síndrome de Hiper IgE e nos pacientes com desordens quantitativas ou qualitativas de neutrófilos (neutropenias congênitas e cíclicas e nas deficiências de adesão leucocitária) (Aktinson, 2000).

Cabe lembrar que a candidíase oral pode ocorrer em resposta ao uso de antibioticoterapia (Crespo *et al*, 2005) que muitas vezes é realizada nos pacientes com IDP a fim de evitar as infecções de repetição.

A infecção pelo vírus herpes é relativamente comum na população geral. A infecção primária pelo vírus pode ser assintomática ou sintomática (gengivoestomatite herpética primária – lesões de início abrupto, dolorosas que geralmente acometem crianças entre 6 meses a cinco anos de idade), apresentando, posteriormente como lesões secundárias e recorrentes, localizadas, principalmente, no vermelhão dos lábios e pele adjacente.

De acordo com o estudo de Szczawinska-Poplonik e colaboradores (2009), as infecções por herpes não estão entre as manifestações orais mais comuns nas desordens de fagócitos.

## **5) Metodologia**

Este estudo é uma revisão sistemática da literatura científica, realizada em base de dados eletrônica *Medline/Pubmed*, conduzida entre os meses de agosto de 2010 a abril de 2011.

A primeira busca realizada utilizou como descritores [MeSh] ***“Immunologic deficiency syndromes AND stomatognathic diseases”***, com

limite em estudos humanos, com o objetivo de se obter uma análise fidedigna das alterações orais em IDPs.

A escolha pelo descritor “*stomatognathic diseases*” deveu-se ao fato deste descritor ser o descritor mais antigo na base de dados do *pubmed* e por entendermos a necessidade de alcançar o maior número de artigos possíveis.

Uma vez que escolhemos como alvo deste presente estudo as deficiências de número e/ou função das células fagocitárias e, por desejarmos analisar os relatos de casos dos pacientes com deficiências de fagócitos, nossos descritores cruzaram cada uma das doenças de fagócitos listadas na Classificação de IDP (Notarangelo, 2009) (**Anexo 1**) com o termo [MeSh] “*case reports*”. Também foram feitas buscas que correlacionavam a doença de fagócitos com o devido defeito genético listado na Classificação de IDP (Notarangelo, 2009) (**Anexo 1**).

A realização de outras buscas mais abertas foi considerada sempre que houve necessidade de se alcançar um número maior de artigos a serem analisados, ou mesmo quando desejamos estabelecer comparações entre diferentes estratégias de buscas. Todas as buscas realizadas, com os seus respectivos descritores estão apresentadas sob forma de apêndices desta dissertação.

Foram incluídos na análise todos os artigos de relatos clínicos de pacientes com diagnóstico comprovado da doença de fagócito em questão. Os artigos que não apresentaram diagnóstico definido, que não possuíam descrição detalhada do quadro clínico, que não possuíam acesso eletrônico disponível e que não fossem em língua inglesa, espanhola ou portuguesa foram excluídos da análise.

Uma análise inicial foi realizada com base no título do artigo e nos resumos de todos os artigos que preenchiam aos critérios de inclusão ou nos artigos que não permitiam clareza de que deveriam ou não ser excluídos.

Após a análise dos resumos, os artigos selecionados para a análise foram devidamente examinados.

### **5.1) Coleta de dados**

Os dados coletados por consulta online foram digitados em planilhas eletrônicas do Excel<sup>®</sup>. A planilha apresenta as seguintes variáveis: Nome do artigo, Nome do autor, código de identificação PMID da base eletrônica do Pubmed/Medline, presença ou ausência do artigo em meio eletrônico, tipo do artigo (relato de caso: sim ou não), quantitativo de pacientes analisados, diagnóstico confirmado e descrição idêntica das manifestações orais e dentárias conforme o surgimento na análise.

Os artigos que foram incluídos na primeira análise e que durante a leitura detalhada do texto não cumpriram os critérios de inclusão foram excluídos neste momento.

## 6) Resultados

### 6.1) Evolução da estratégia de busca:

A primeira busca geral realizada com os descritores “*immunologic deficiency syndromes AND stomatognathic diseases*”, limitando a estudos em humanos permitiu, além de estudos de imunodeficiência primária, uma grande quantidade de artigos relativos a HIV, HTLV e câncer, totalizando 4270 artigos. Esta forma de busca revelou-se ineficiente, porque alguns temas que apareceram na busca não eram necessariamente ligados ao interesse do nosso trabalho, utilizada como descritor, ou seja, as IDP.

Com base nisto, partimos para apurar nosso procedimento, através da adoção de limites de busca (“*and NOT hiv and NOT acquired immunodeficiency syndrome and NOT virus and NOT cancer NOT htlv and NOT AIDS*”), resultando em 362 artigos (**Figura 2**)

Observamos que ainda existiam alguns trabalhos sobre a Síndrome de DiGeorge, uma síndrome de imunodeficiência primária bem reconhecida e cujas manifestações incluem defeitos do sistema imune além de anormalidades em muitos outros órgãos e sistemas e estes relatos não eram necessariamente informativos sobre aspectos de infecção e imunidade. Optamos, então, pela exclusão desta síndrome (*AND NOT DiGeorge, AND NOT 22q*), restando um total de 357 artigos.

Na análise dos 357 artigos, 172 artigos foram excluídos, por não estarem relacionados com nenhuma IDP e 64 por não serem estudos de relatos de casos (detalhados na figura 2), sendo selecionados para análise integral, 124 artigos.

Nesta busca realizada, o que mais nos chamou a atenção foi o fato de que poucos relatos de caso foram recuperados, inclusive das imunodeficiências onde as manifestações orais são sabidamente parte do quadro clínico apresentado pelos pacientes, o que nos levou a questionar se o procedimento de busca era eficiente para recuperar essa categoria de trabalhos.

Com o objetivo de evitarmos a perda de referências importantes, modificamos nossa estratégia de busca, partindo para a busca de relatos de casos de IDPs, e, dentro dos artigos recuperados, procuramos sistematicamente a menção de alterações orais.

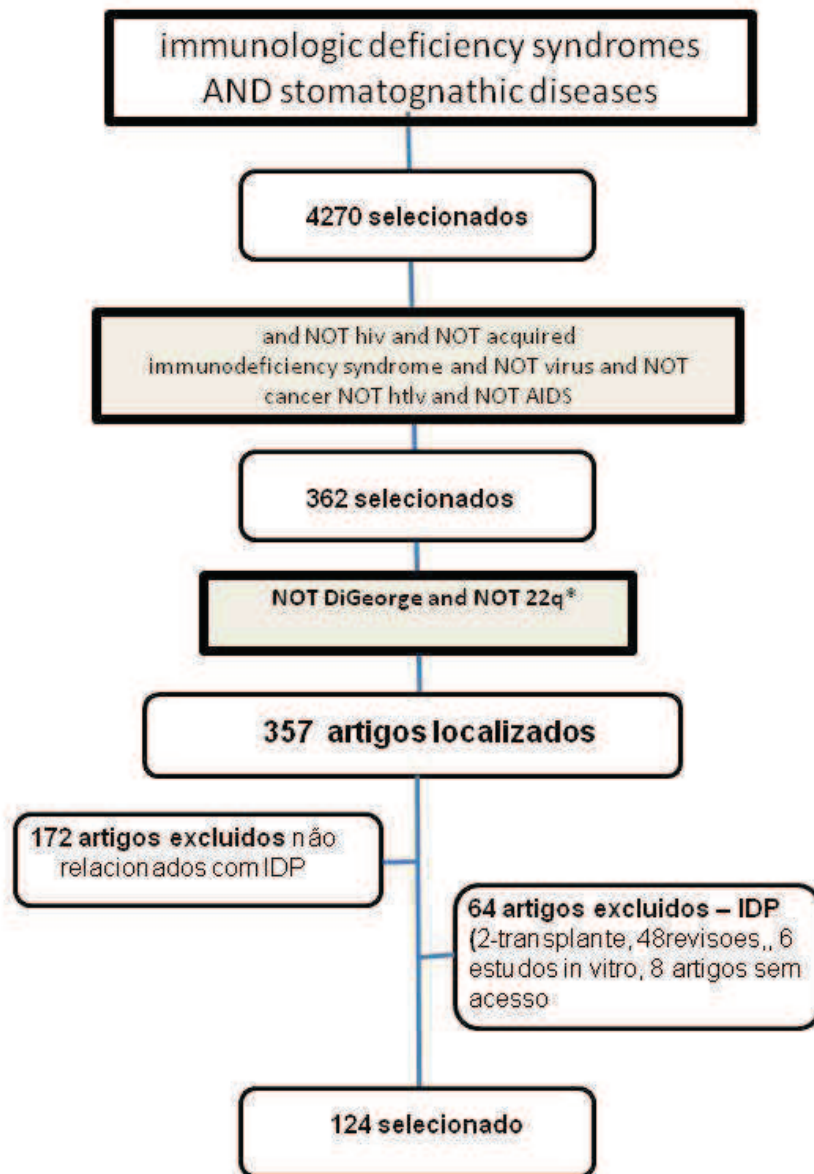
Como existem muitas IDPs de vários grupos, o trabalho envolvido aumentou muito, e, portanto, tomamos a decisão de limitar nossa busca ao grupo de defeitos de fagócitos, que sabidamente apresentam manifestações orais e para os quais é possível estabelecer relações entre fisiopatologia e clínica.

Tendo, portanto, verificado que a busca por termos abrangentes era inadequada para nossa tarefa, reformulamos nossa estratégia, para assegurar que relatos de casos sobre todos os tipos de IDPs de fagócitos fossem recuperados, fazendo buscas sistemáticas com base nas mutações conhecidas e especificando relatos de casos entre as categorias desejadas de artigos. Os resultados obtidos nas outras buscas são detalhados a partir da seção 6.2, seguindo a ordem elencada na Classificação de IDP (Notarangelo *et al*, 2009) **(Anexo 1)**.



Figura 2:

## Síndrome de Deficiência Imunológica X Doenças Estomatognáticas



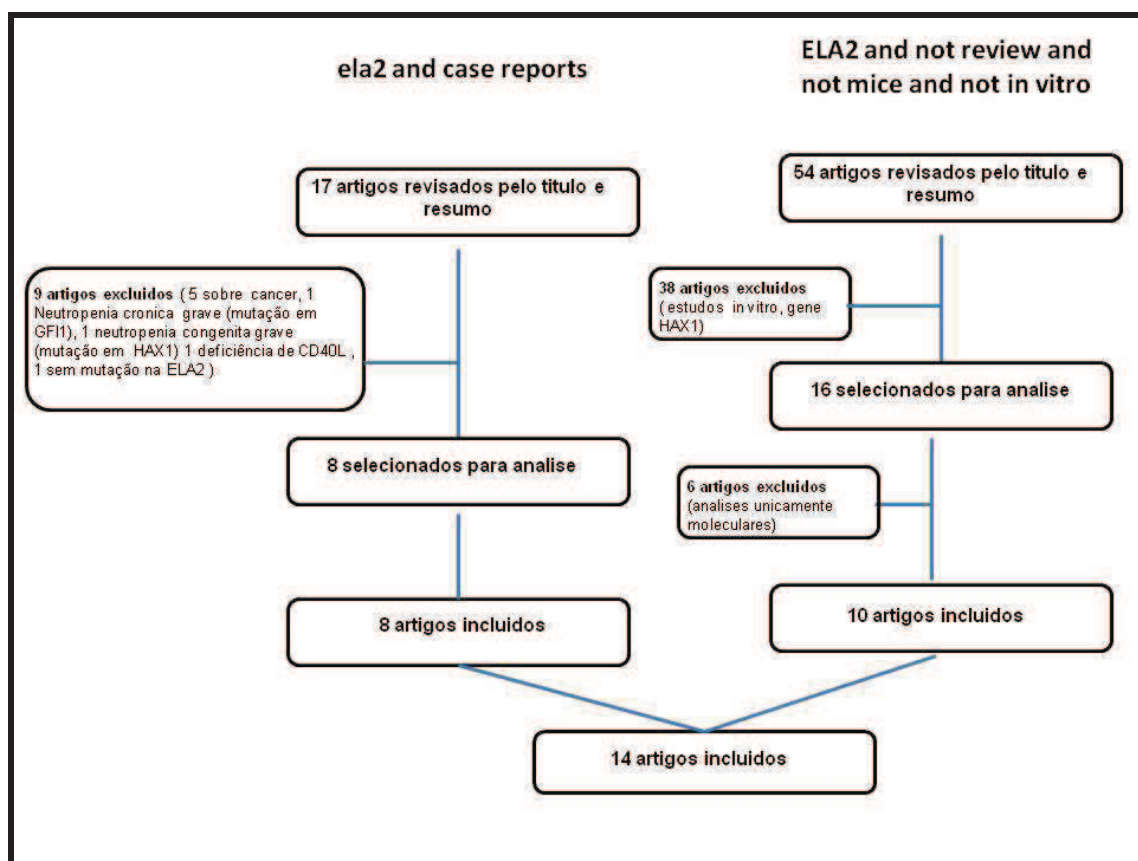
## 6.2) Neutropenias Congênitas Graves (ELA2 - elastase 2)

A busca realizada na base *pubmed* com os descritores (**ELA2 and Case Reports**) (**Apêndice 1**) localizou um total de 17 artigos. Destes, 9 artigos foram excluídos por não serem relacionados com o gene ELA2 (7 não apresentaram alterações orais e 2 com alterações orais).

Foram analisados 8 artigos, totalizando 16 pacientes descritos com mutação no gene ELA2 (**Figura 3**). Somente 2 pacientes (12,5%) apresentavam relato de alterações orais; um paciente apresentou inicialmente gengivite e posteriormente periodontite e o outro apresentou úlceras aftosas recorrentes.

Uma segunda busca foi realizada utilizando “**ELA2 and not review and not mice and not in vitro**” (**Apêndice 2**), com o objetivo de se obter uma busca mais abrangente. Nessa busca encontramos 54 artigos, 44 foram eliminados (estudos de análise *in vitro*, estudos de análises exclusivamente moleculares e análises de outros genes). Desta segunda busca foram analisados 10 artigos, sendo que 6 destes já haviam sido localizados na primeira busca (**Figura 3**). Dos artigos restantes, foram avaliados 24 pacientes, e somente 1 paciente apresentou alterações orais, descritas como estomatite grave e ulcerações de cavidade oral.

**Figura 3**  
**Neutropenias Congênitas Graves**  
**(ELA2 - elastase 2)**

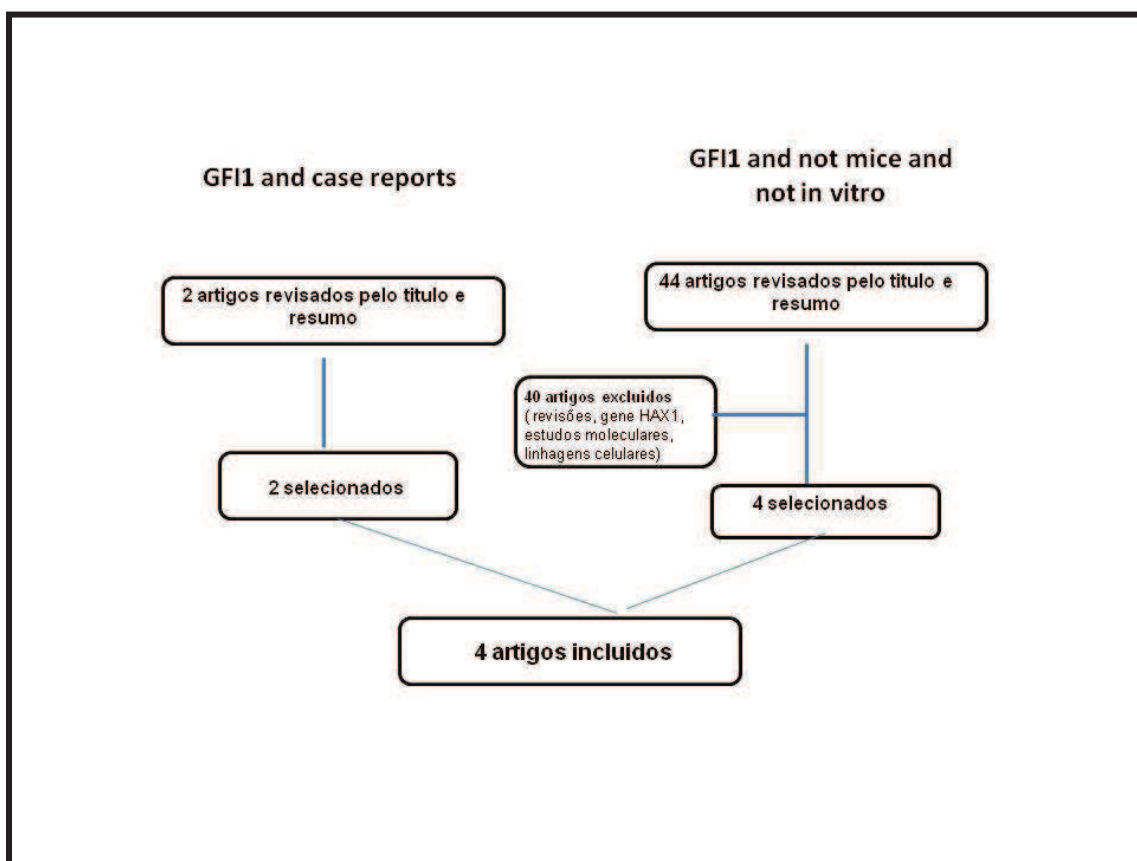


### 6.3) Neutropenias Congênitas Graves (GFI1: repressão da Elastase)

A busca realizada com a descritor “*GFI1 and case reports*” identificou 2 artigos (**Apêndice 3**) com descrição de 1 paciente em cada artigo, e em nenhum deles havia relato de alterações orais. Realizamos também uma busca mais abrangente, utilizando somente o descritor **GFI1**, com limite em Humano, excluindo os estudos realizados em camundongo, restando um total de 44 estudos. Porém destes artigos, somente 4 eram análises de casos clínicos, já

encontrados na busca anterior (**Apêndice 4**). Em nenhum deles foi relatada a presença de alterações orais. Dos dois novos artigos não encontrados na primeira busca, um deles era sobre análise molecular do ELA2 e GFI1 em vários pacientes, sem detalhamento da descrição do quadro clínico e o outro era um caso de mutação em ambos os genes ELA2 e GFI1 (**Figura 4**).

**Figura 4**  
**Neutropenias Congênicas Graves**  
**(GFI1: repressão da Elastase) (2)**



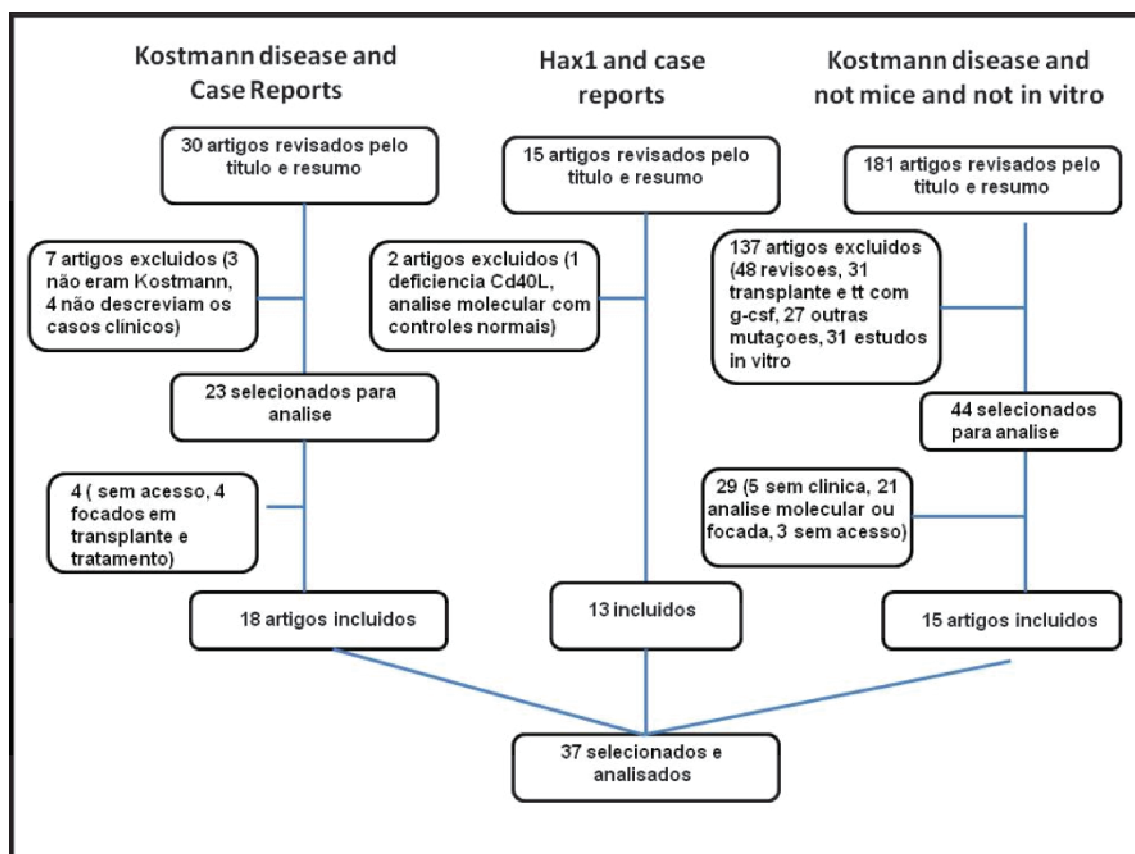
#### 6.4) Síndrome de Kostmann

A busca realizada na base *pubmed* com os descritores (***Kostmann disease and Case Reports***) (**Apêndice 5**) localizou um total de 30 artigos. Destes, 8 artigos foram excluídos (3 por não tratarem de Síndrome de Kostmann; 4 artigos que não descreviam os casos clínicos da amostra e 1 artigo por não estar acessível).

Outras duas outras buscas foram realizadas. A primeira busca utilizando os descritores "***hax1 and case reports***", onde foram localizados 15 (**Apêndice 6**), 2 foram excluídos e 13 seguiram para análise. A segunda busca com os descritores "***Kostmann disease and not mice and not in vitro***" localizando 181 artigos (**Apêndice 7**). Na primeira busca, todos os artigos foram incluídos para análise. Já na segunda busca, do total de 181 artigos, foram eliminados 137 (48 revisões, 31 artigos sobre transplante e tratamento com G-CSF, 27 sobre outras mutações, 31 estudos in vitro; além da eliminação de 29 artigos sendo 5 que não apresentaram descrição clínica, 21 sem análise molecular e 3 por falta de acesso ao artigo).

Após a remoção das duplicidades encontradas nas três buscas realizadas com os diferentes descritores, a análise foi feita nos 37 artigos de relatos de caso de doença de Kostmann, detalhados na **Figura 5**. No universo amostral de 77 pacientes analisados, 57% destes apresentavam relato de manifestações orais. As manifestações mais freqüentes foram doença periodontal (68%), aftas (61%) e gengivite (27%). Outras manifestações com menores freqüências foram: Estomatite (20,45%), Candidíase (3%), Sangramento gengival (2%), Perda de osso alveolar (6%), Perda precoce de dentes decíduos (4%), Infecções orais de repetição (2%), Mobilidade dentária (4,55%), Abscesso de glândula parótida (2%), Infecções orais por herpes (2%).

**Figura 5**  
**Síndrome de Kostmann (3)**



### 6.5) Deficiência de G6PC3 - Neutropenia com malformações cardíacas e urogenitais

A busca realizada utilizando “G6PC3” (Apêndice 8) identificou 17 artigos. Desta análise foram excluídos 12 (6 eram artigos de revisão, 4 eram sobre análises moleculares sem descrição dos relatos de casos, 1 caso tinha diagnóstico de câncer e 1 era um estudo em modelo murino).

A segunda busca utilizando "**G6PC3 and case reports**" localizou 3 artigos (**Apêndice 9**), sendo eliminado 1 por não apresentar mutação no referido gene.

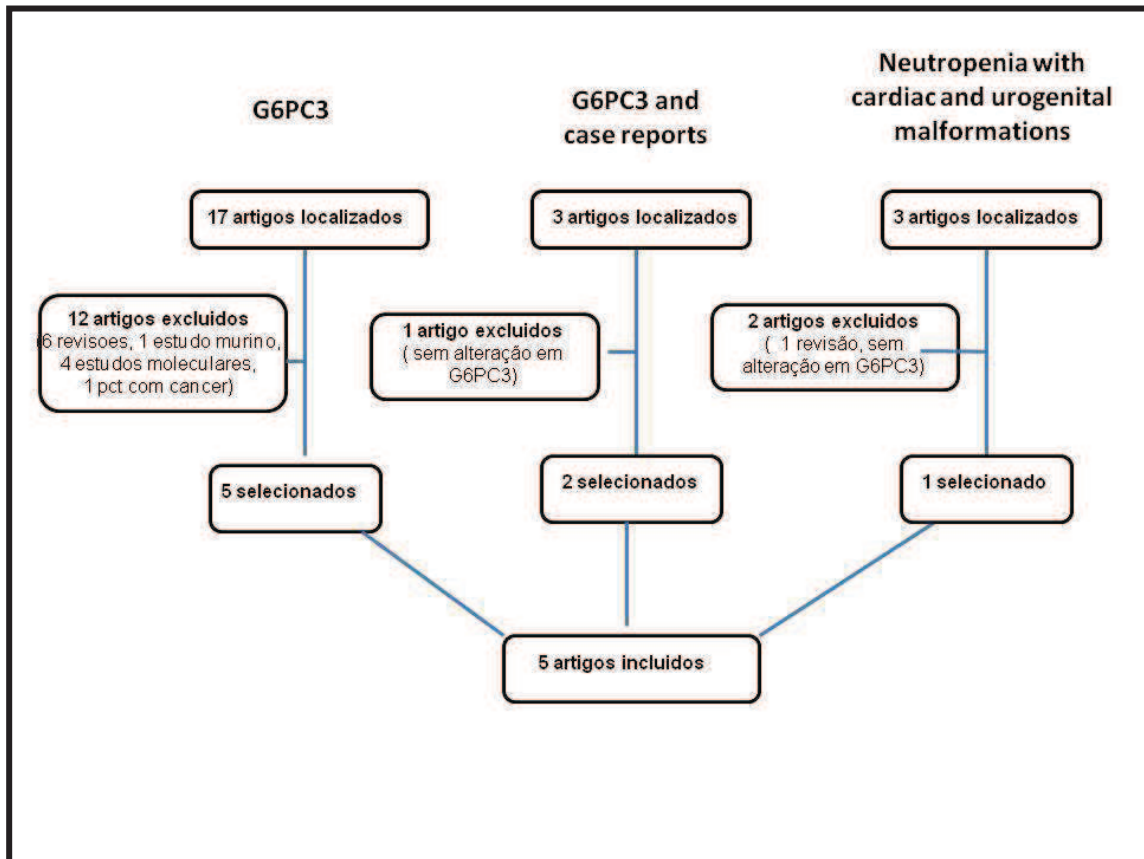
A terceira busca usou os descritores "**Neutropenia with cardiac and urogenital malformations**" e encontrou 3 artigos (**Apêndice 10**), sendo 2 eliminados (1 revisão e 1 por não apresentar mutação em G6PC3).

Foram analisados como resultado destas três buscas, um total de 5 artigos (**Figura 6**), correspondendo a 15 pacientes. Desta amostra, em quatro pacientes houve relato de manifestações orais: Perda precoce de dentes decíduos (n=3), Aftas/úlceras aftosas (n=3), Periodontite (n=2) e Gengivite (n=1).

Figura 6

## Deficiência de G6PC3

## Neutropenia com malformações cardíacas e urogenitais

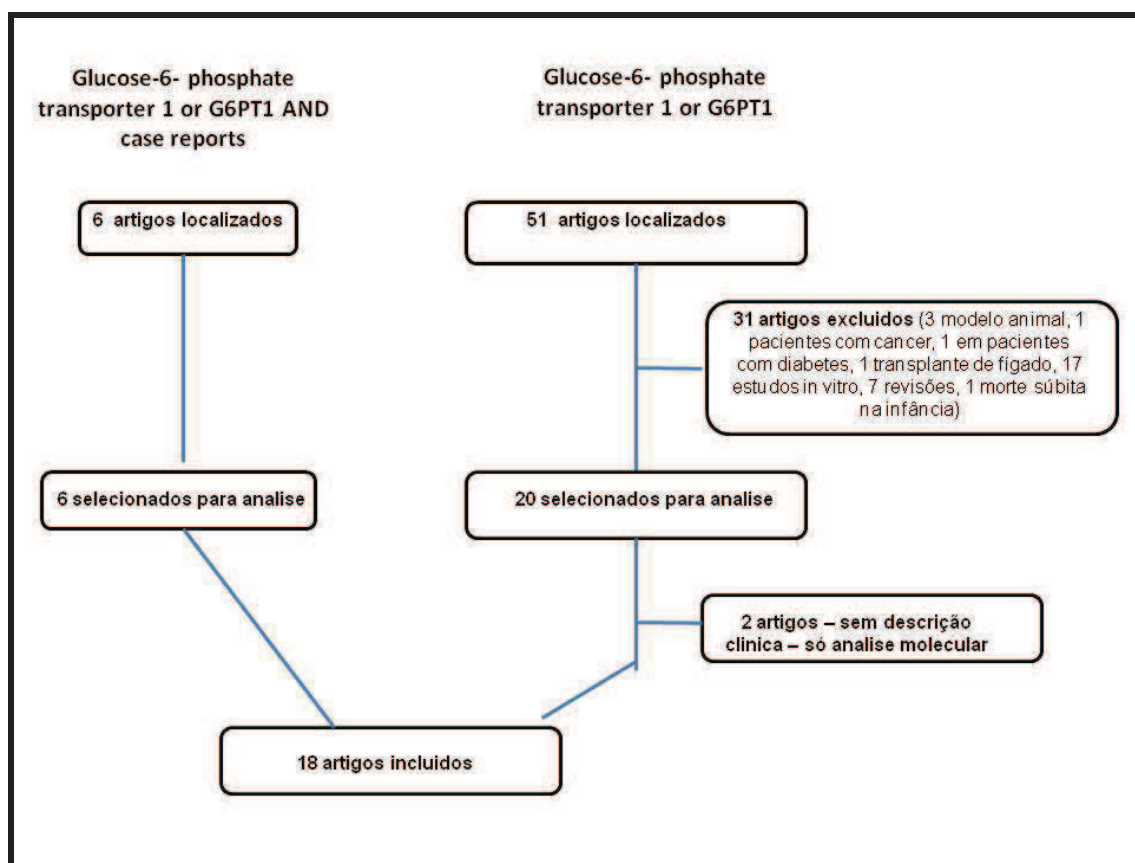




### **6.6) Doença de estocagem de Glycogenio tipo 1b (gene -G6PT1: Glucose-6-phosphate transporter 1)**

A busca realizada utilizando “**G6PT1 and case reports**” identificou 6 artigos (Apêndice 11). Optamos por realizar uma busca adicional mais aberta, utilizando o descritor “**Glucose-6- phosphate transporter 1 or G6PT1**” com limite em humanos (**Apêndice 12**). Nessa busca, encontramos 51 artigos, inclusive todos os 6 artigos da busca anterior. Foram excluídos 31 artigos (3 estudos eram em modelo animal, 1 em pacientes com câncer, 1 em pacientes com diabetes, 1 tratava de transplante de fígado, 17 eram estudos *in vitro*, 7 eram artigos de revisão, 1 artigo era em japonês). Um total de 18 artigos foi analisado (**Figura 7**), correspondendo a 143 pacientes com diagnóstico confirmado, e nenhum relato de alteração oral foi encontrado.

**Figura 7**  
**Doença de estocagem de Glycogenio tipo 1b**  
**(gene -G6PT1: Glucose-6-phosphate transporter 1)**



### 6.7) Neutropenia Cíclica

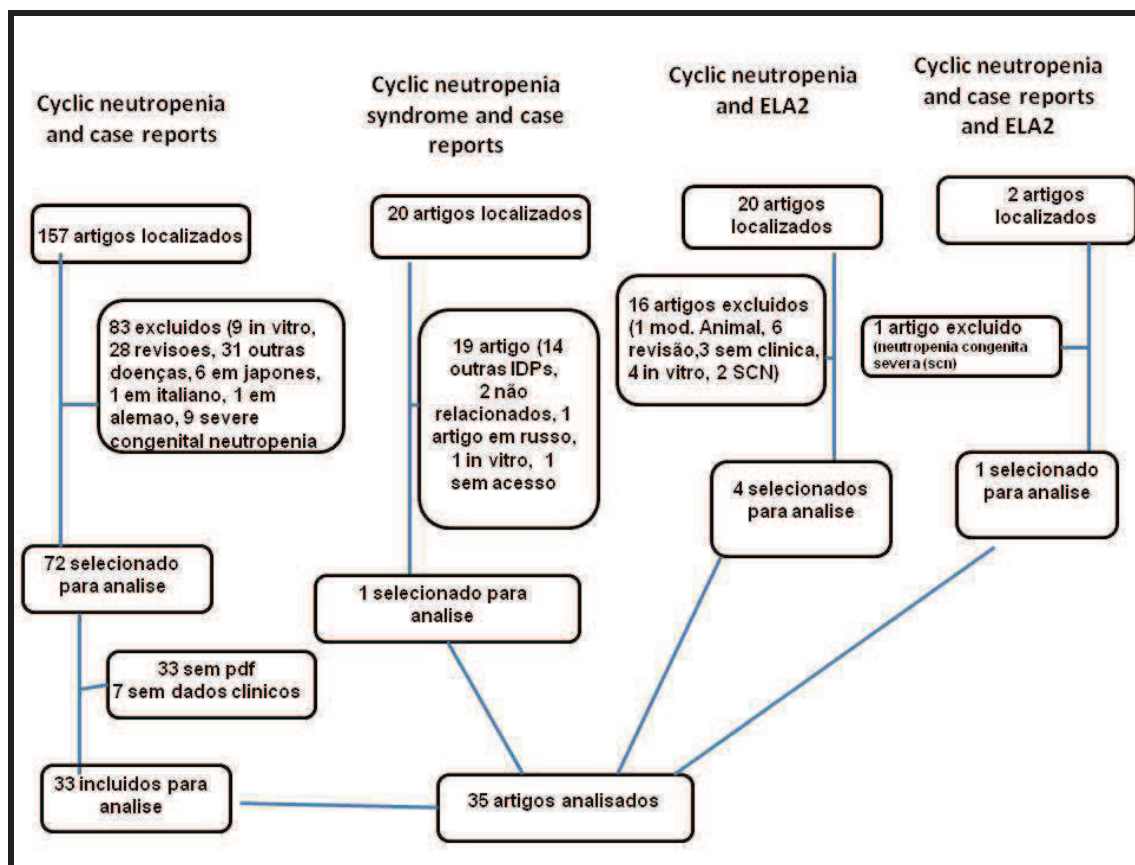
A busca realizada utilizando os descritores “*Cyclic neutropenia syndrome and case reports*” (Apêndice 13) identificou 20 artigos e, destes foram eliminados 19 artigos (14 artigos sobre outras a apresentação de neutropenia em outros tipos de IDP, 2 artigos sobre outras doenças não relacionadas, 1 artigo em russo, 1 estudo *in vitro*, 1 artigo sem acesso).

A segunda busca utilizou os descritores “**Cyclic neutropenia and case reports**” (Apêndice 14) identificando 157 artigos, 83 foram excluídos (28 revisões, 30 artigos sobre outras doenças, 9 estudos *in vitro*, 9 artigos sobre Neutropenia congênita grave, 6 artigos em japonês, 1 em italiano, 1 em alemão). Dentre os 73 artigos selecionados para análise, 38 foram excluídos (32 artigos antigos sem acesso e 7 por não apresentarem descrição dos dados clínicos), resultando em 36 artigos incluídos no estudo.

A terceira e quarta buscas foram baseadas no gene identificados relacionado com a neutropenia cíclica. A terceira busca foi “**Cyclic neutropenia and ELA2**” (Apêndice 15) que encontrou 21 artigos sendo que 16 artigos foram excluídos (1 em modelo animal, 6 artigos de revisão, 4 artigos sem descrição clínica, 4 estudos *in vitro*, 2 artigos sobre neutropenia congênita grave). A quarta busca utilizou “**Cyclic neutropenia and case reports and ELA2**” (Apêndice 16) e encontrou 2 artigos, 1 foi excluído por ser sobre neutropenia congênita grave.

Após a eliminação das sobreposições 35 artigos foram incluídos na análise consolidada (Figura 8), totalizando 46 pacientes, 74% (n=34) apresentaram manifestações orais.

**Figura 8**  
**Neutropenia Cíclica.**



### 6.8) Neutropenia ligada ao X/ mielodisplasia

A primeiras buscas realizadas utilizaram os descritores “*X-linked neutropenia AND wasp and case reports*” (Apêndice 17) e “*neutropenia AND wasp and case reports*” (Apêndice 18), identificaram 2 artigos, sendo que 1 foi eliminado por se tratar de um relato de síndrome de Wiskott-Aldrich.

A segunda busca utilizou os descritores “*X-linked neutropenia AND wasp*” (Apêndice 19) e identificou 16 artigos, dos quais foram eliminados 10

artigos (2 artigos de revisão, 5 sobre síndrome de Wiskott-Aldrich e 3 estudo *in vitro*).

A terceira busca foi mais abrangente e utilizou os descritores “**neutropenia and wasp**” localizando 17 artigos (**Apêndice 20**). Foram eliminados 12 artigos (9 artigos de revisão, 2 estudo *in vitro*, 1 sobre a síndrome de Wiskott-Aldrich).

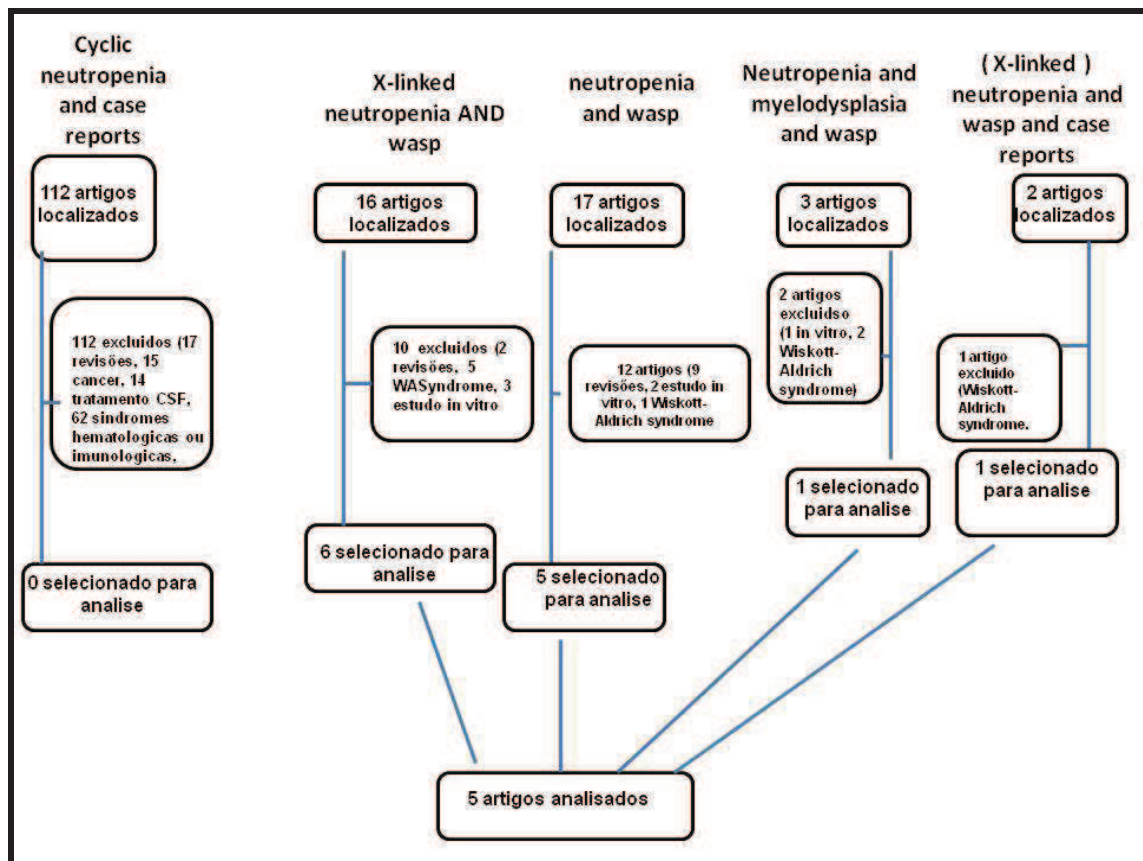
A quarta busca utilizou os descritores “**Neutropenia and myelodysplasia and wasp**” localizando 3 artigos (**Apêndice 21**). Destes, 2 foram eliminados (1 estudo *in vitro*, 2 sobre a síndrome de Wiskott-Aldrich).

A última busca foi “**Neutropenia and myelodysplasia and wasp**” e localizou 112 artigos (**Apêndice 22**), dos quais todos foram eliminados (17 artigos de revisão, 15 artigos sobre câncer, 14 sobre tratamento com CSF e 62 de outras síndromes hematológicas ou imunológicas).

Após a eliminação das sobreposições, apenas 5 artigos foram incluídos na análise consolidada (**Figura 9**), totalizando 41 pacientes. Em nenhum paciente foi descrito relatos de alterações orais. Cabe ressaltar que as descrições clínicas eram bastante resumidas.

Figura 9

## Neutropenia ligada ao X/ mielodisplasia



### 6.9) Deficiência da proteína P14

A busca foi realizada utilizando **“P14 deficiency syndrome and case reports”** (Apêndice 23). A outra busca utilizou **“P14 protein deficiency and case reports”** (Apêndice 24). Uma outra busca utilizou os descritores **“Mapbpip protein deficiency and case report”** (Apêndice 25) e a última busca utilizou **“Endosomal adaptor protein 14 deficiency and case report”** (Apêndice 26). Em nenhum destes levantamentos foi identificado qualquer trabalho. Entretanto, ao utilizarmos somente **“P14 deficiency”** foram encontrados 17 trabalhos. Destes 17 artigos, 16 artigos foram excluídos (7 artigos por não tratarem da deficiência da proteína 14 e sim de alterações no braço curto do cromossoma (p14), 7 estudos *in vitro* e 2 artigos por se tratarem da posição p14 na coluna vertebral). Restou, portanto, somente 1 artigo sobre a deficiência da proteína 14 (**Figura 10**), no qual não havia relato de nenhuma alteração oral.

Figura 10

## Deficiência da proteína 14

**6.10) Deficiência de adesão leucocitária tipo 1**

A primeira busca foi realizada utilizando como descritores **“Leukocyte adhesion deficiency type 1 and case reports”** (Apêndice 27) encontrando 15 artigos e excluído 1 artigo por ser um estudo *in vitro*.

A segunda busca utilizou **“Leukocyte adhesion deficiency type I and case reports”** (Apêndice 28) encontrando 43 artigos, onde foram excluídos da análise um total de 7 artigos (4 estudos *in vitro*, 1 relato de caso de LAD II, 2 relatos de casos de outras doença).

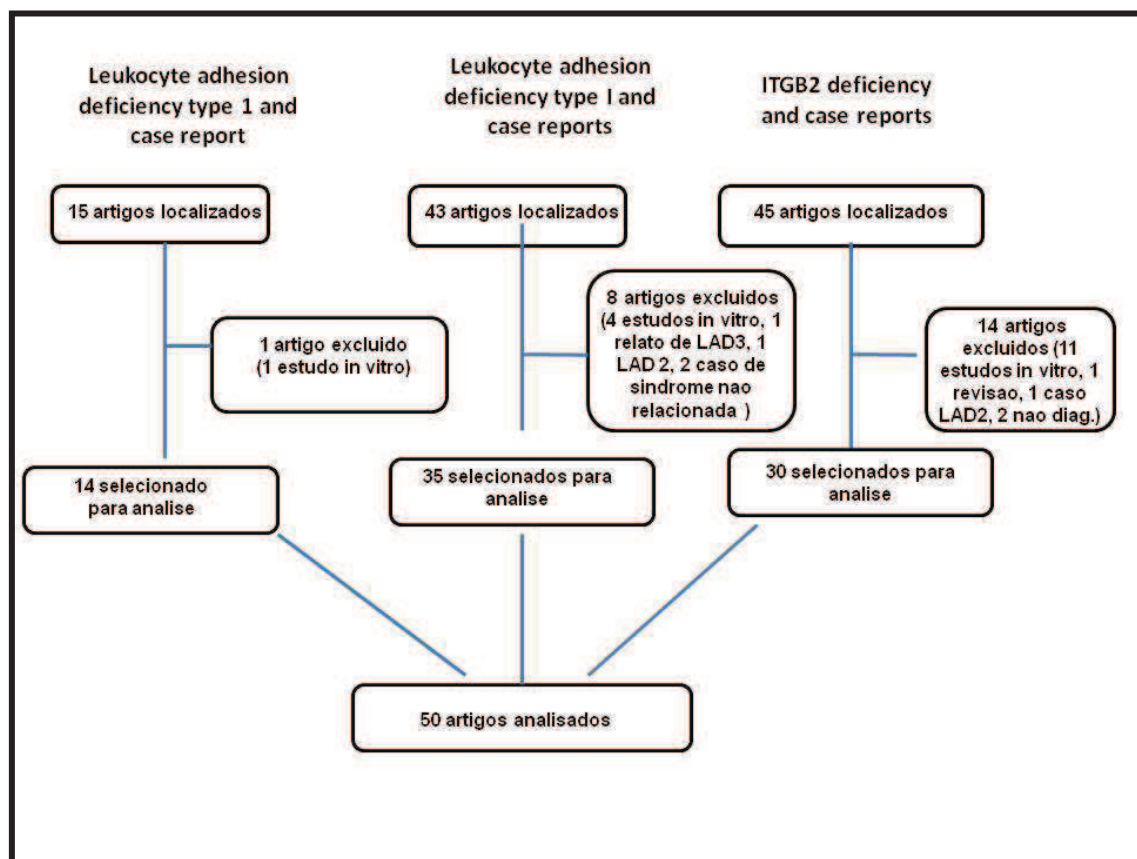
Na terceira utilizamos o nome do gene envolvido na LAD 1, **“ITGB2 deficiency and case reports”** (Apêndice 29) localizou 45 artigos, sendo excluídos 14 artigos (11 estudos *in vitro*, 1 caso de LAD 2, 2 relatos de caso sem diagnóstico fechado e 1 artigo de revisão).



A análise foi então realizada com 50 artigos após a exclusão das sobreposições (**Figura 11**), totalizando 80 pacientes. Destes pacientes relatados, 66,25% (N=53) não possuíam relato de nenhuma manifestação oral e 33,75% possuem diversas manifestações orais: 53,3% de doença periodontal, 26% apresentavam gengivite; 13,4% apresentavam mobilidade dentária, perda de osso alveolar e candidíase oral; 6,6% apresentavam úlceras aftosas e sangramento gengival.

**Figura 11**

**Deficiência de adesão leucocitária tipo 1**



### 6.11) Deficiência de adesão leucocitária tipo 2

A primeira busca foi realizada com os descritores **“Leukocyte adhesion deficiency type 2 and case reports”** (Apêndice 30) encontrando 23 artigos sendo 17 artigos excluídos (15 artigos sobre LAD 1 e 2 sobre outras síndromes).

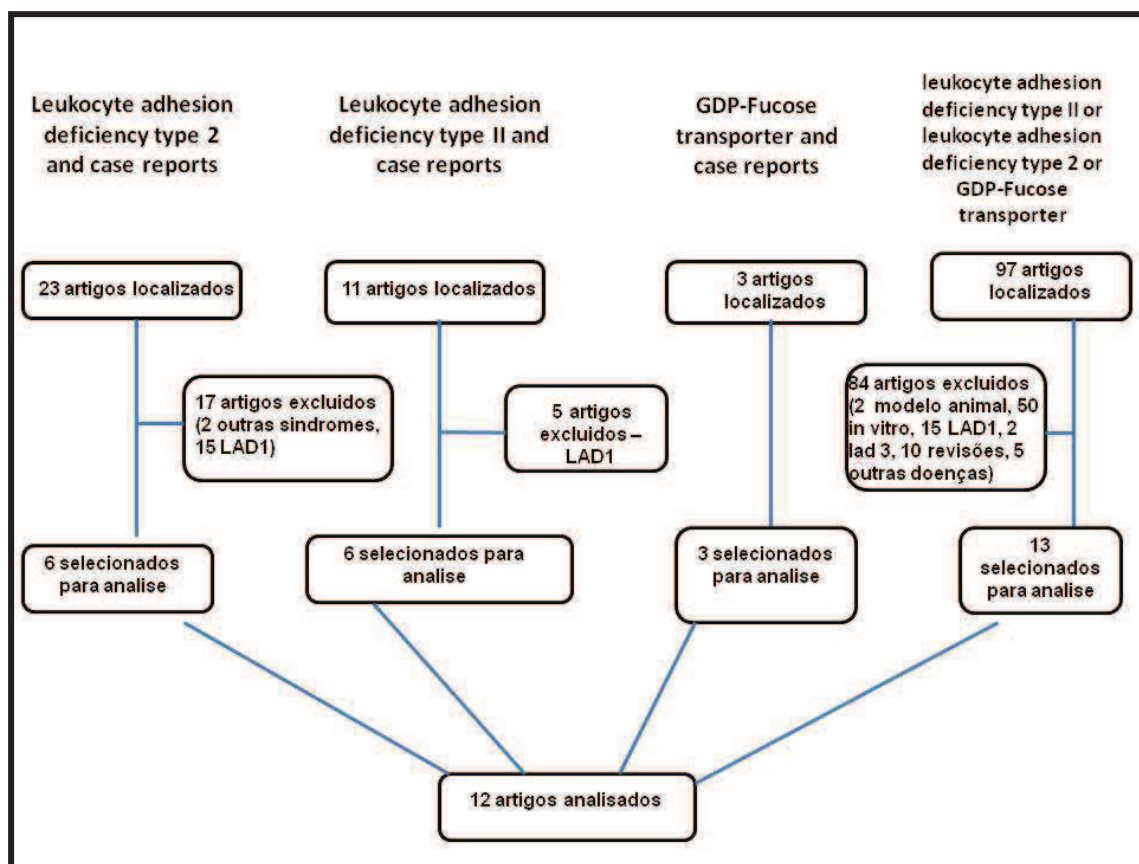
A segunda busca *utilizou* **“Leukocyte adhesion deficiency type II and case reports”** (Apêndice 31) encontrando 11 artigos e excluídos 5 artigos (5 artigos sobre relatos de caso de LAD I).

Na terceira busca utilizamos o nome do gene envolvido nessa patologia **“GDP-Fucose transporter”** (Apêndice 32) localizando 3 artigos. Na quarta busca utilizamos **“Leukocyte adhesion deficiency type II or leukocyte adhesion deficiency type 2 or GDP-Fucose transporter”** (Apêndice 33) localizando 97 artigos. Destes, 84 artigos foram excluídos (2 artigos de modelo animal, 50 estudos *in vitro*, 5 casos de LAD 1, 2 casos de LAD 3, 10 artigos de revisão, 5 artigos sobre outras doenças).

A análise foi realizada, após a exclusão das sobreposições, em 12 artigos (**Figura 12**) e em 21 pacientes. Desta amostra, 52% (N=11) não possuíam nenhuma manifestação oral descrita e 48% possuíam diversas manifestações orais: em 100% dos casos, os pacientes apresentaram doença periodontal e 10% possuíam história de perda precoce de dentes decíduos.

Figura 12

## Deficiência de adesão leucocitária tipo 2



## 6.12) Deficiência de adesão leucocitária tipo 3

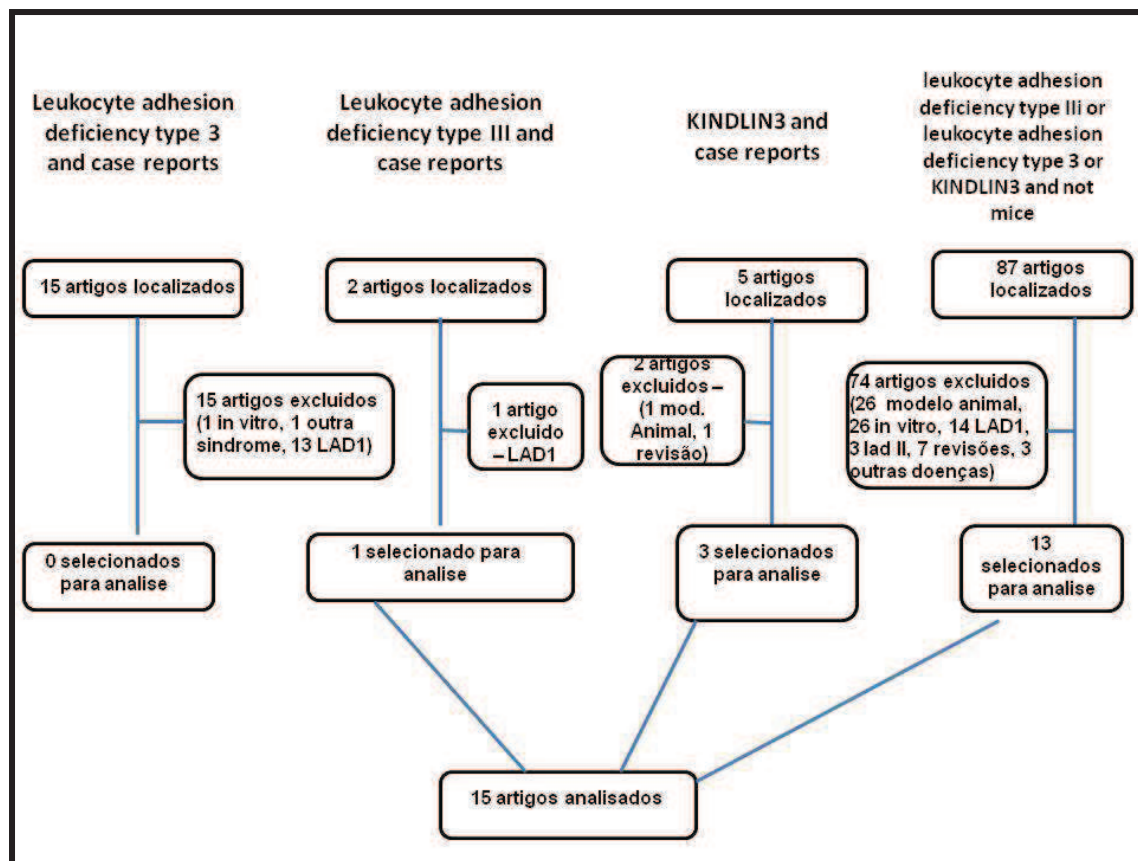
A primeira busca foi realizada com os descritores “*Leukocyte adhesion deficiency type 3 and case reports*” (Apêndice 34) encontrando 15 artigos e a exclusão de todos estes artigos (1 estudo *in vitro*, 1 artigo sobre uma outra síndrome, 13 artigos sobre LAD-1). A segunda busca utilizou “*Leukocyte adhesion deficiency type III and case reports*” (Apêndice 35) encontrando 2 artigos, excluindo da análise 1 artigo (relato de LAD I). Na terceira busca utilizamos o nome do gene envolvido nessa patologia

**“KINDLIN3 and case reports” (Apêndice 36)**, localizando 5 artigos e excluindo 2 artigos (1 artigo de revisão e 1 artigo sobre modelo canino).

Na quarta e última busca utilizamos **“leukocyte adhesion deficiency type III or leukocyte adhesion deficiency type 3 or KINDLIN3” (Apêndice 37)** localizando 87 artigos e excluindo da análise 74 artigos (26 modelo animal, 41 in vitro, 14 LAD1, 3 lad II, 17 revisões, 3 outras doenças).

A análise foi realizada nos 15 artigos, totalizando 90 pacientes relatados, após a exclusão das sobreposições (**Figura 13**). Em um destes artigos, foram analisados 36 pacientes, porém os relatos de casos clínicos não eram individualizados, embora o artigo descrevesse a presença de doença periodontal e cárie. Para a nossa análise, optamos por desconsiderar esses pacientes, sendo incluídos no nosso estudo um total de 52 pacientes. 46 % (N=24) não relataram nenhuma manifestação oral e 54% possuem diversas manifestações orais: Em um artigo 8 dos 9 pacientes relatados apresentavam comprometimento oral, mas os autores não detalharam as alterações encontradas; Sangramento gengival esteve presente em 14,3%, 10,7% apresentavam candidíase, 7% periodontite.

**Figura 13**  
Deficiência de adesão leucocitária tipo 3



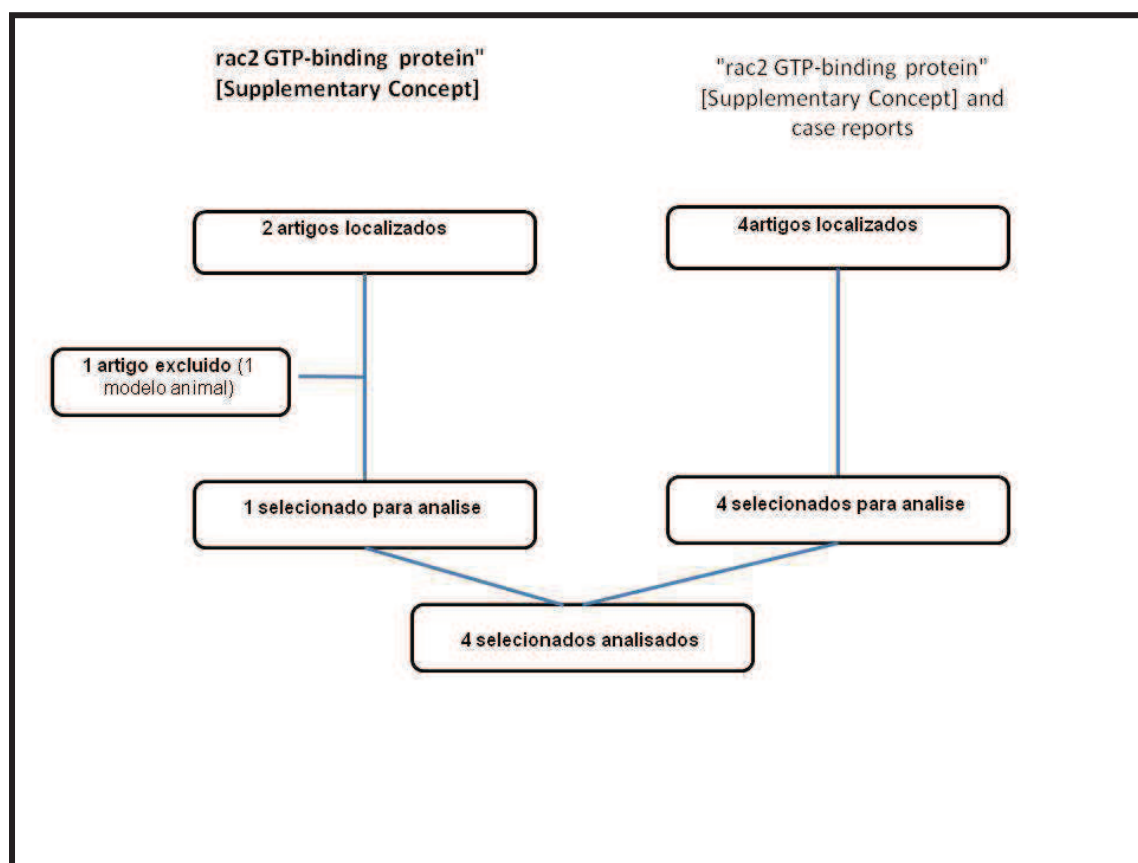
### 6.13) Deficiência de Rac2

A busca realizada utilizando os descritores *MeSh* “*rac2 GTP-binding protein [Supplementary Concept] and case reports*” (Apêndice 38) apresentou 4 artigos. Realizamos também uma busca mais aberta utilizando-se a denominação estabelecida na classificação das IDP (Notarangelo *et al*, 2009), ou seja, “*Rac 2 deficiency and case reports*” (Apêndice 39),

encontramos 2 artigos (1 artigo que havia sido encontrado na primeira busca e o segundo que foi excluído por não possuir relação com doença).

Os 4 artigos incluídos para análise, totalizaram 4 pacientes e em nenhum destes casos houve relato de alterações orais, possivelmente pela idade muito precoce dos pacientes (inferior ou igual a 1 ano) (**Figura 14**).

**Figura 14**  
**Deficiência de Rac 2**



#### **6.14) Deficiência de $\alpha$ -Actina**

A busca realizada utilizando ***“b-Actin deficiency and case reports”*** (Apêndice 40) não localizou nenhum artigo. Fizemos, então, uma segunda busca utilizando ***“Cytoplasmic actin deficiency and case reports”*** (Apêndice 41) que localizou 3 artigos, porém nenhum destes estava relacionado com a deficiência de  $\beta$ -Actina. Uma terceira busca foi realizada utilizando ***“ACTB and case reports”*** (Apêndice 42) e nenhum artigo foi encontrado.

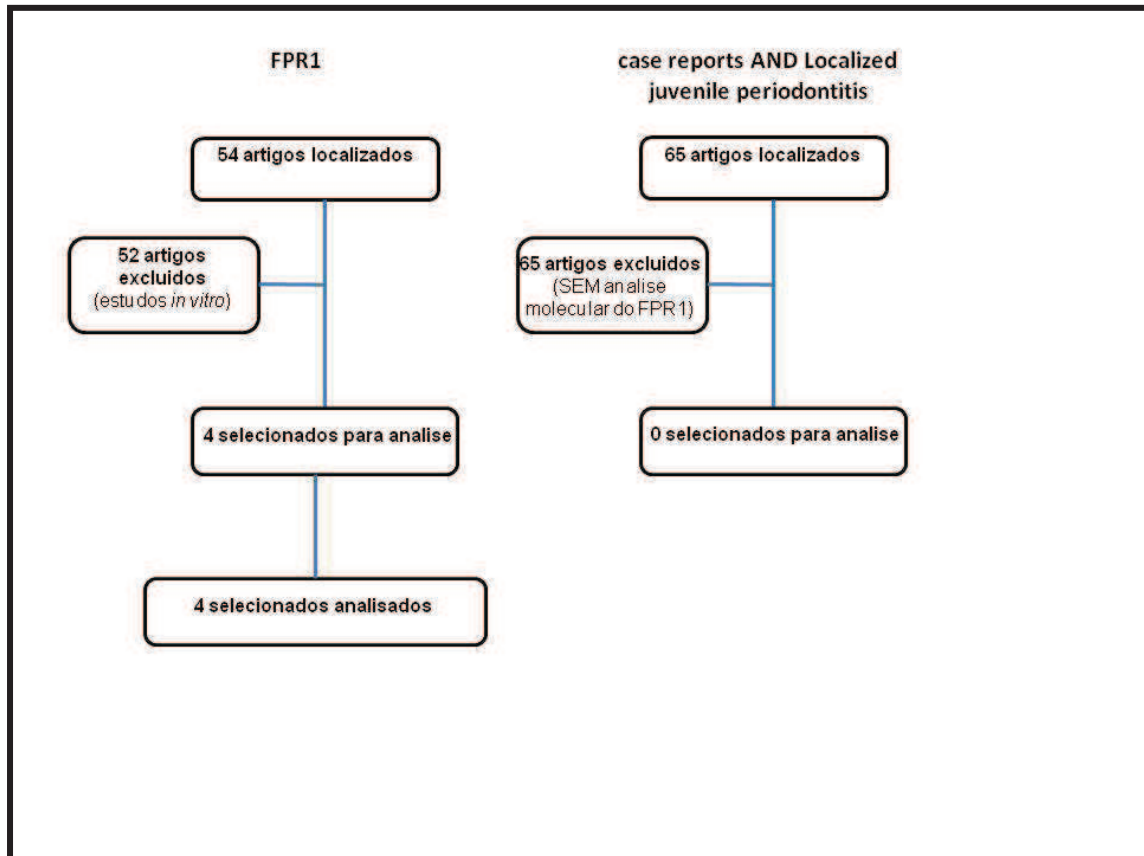
#### **6.15) Periodontite juvenil localizada – Formylpeptide FPR1: Chemokine receptor**

A busca realizada com os descritores ***“case reports AND Localized juvenile periodontitis”*** (Apêndice 43) encontrou 65 artigos, mas nenhum deles realizava a análise molecular do FPR1. Uma nova busca foi realizada utilizando o descritor ***“FPR1 protein, human”*** (Apêndice 44), encontrando 56 artigos e foram excluídos 52 artigos (52 eram estudos *in vitro* de vários aspectos). 4 estudos de coortes eram com pacientes com periodontite

Foram analisados 4 artigos de estudos de coortes, totalizando 223 pacientes com periodontite localizada ou agressiva aonde a expressão ou o polimorfismo de base única (SNP) de FRR1 foram estudados (Figura 15).

Figura 15

## Periodontite juvenil localizada – Formylpeptide FPR1



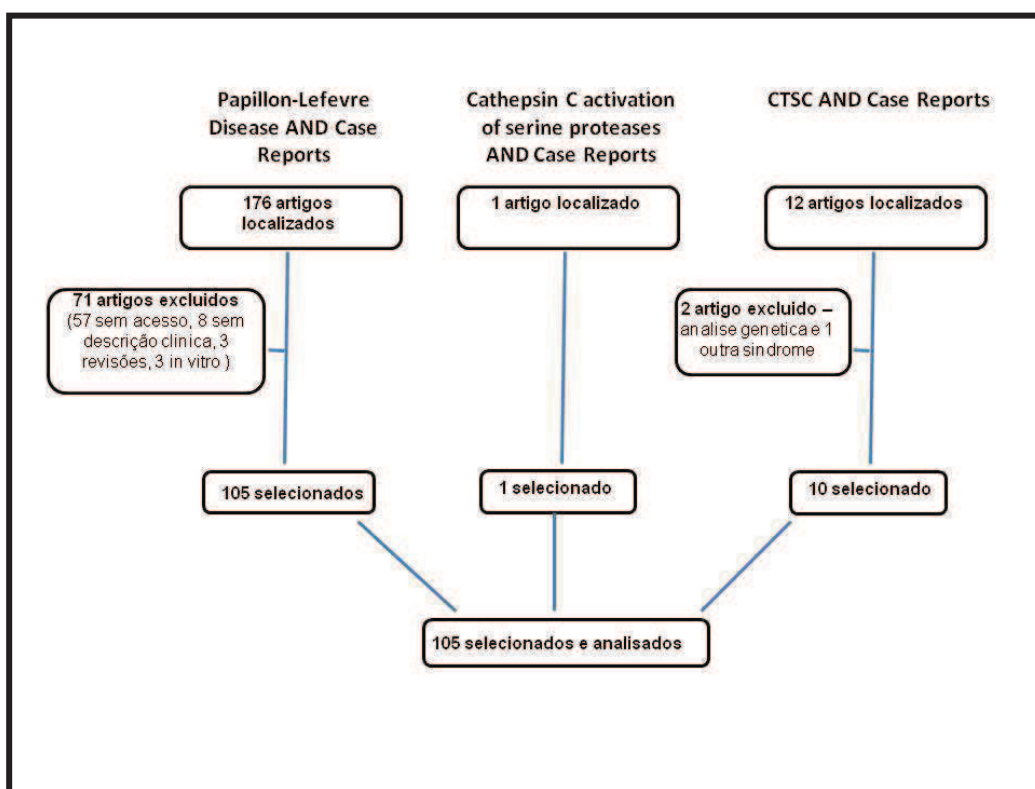


### 6.16) Síndrome de Papillon-Lefèvre

A busca realizada com os descritores ***'Papillon-Lefevre Disease AND Case Reports'*** (Apêndice 45) encontrou 176 artigos e 71 artigos foram excluídos (57 sem acesso aos artigos, 8 sem descrição clínica, 3 revisões, 3 estudos *in vitro*). A segunda busca realizada utilizou os descritores ***"Cathepsin C activation of serine proteases AND Case Reports"*** (Apêndice 46) encontrou 1 artigo e, a terceira busca foi ***"CTSC AND Case Reports"*** (Apêndice 47) encontrando 12 artigos, sendo 2 excluídos (1 estudo de análise molecular e outro que não era sobre a Síndrome de Papillon-Lefèvre).

A análise foi realizada com 105 artigos depois de excluir as sobreposições, totalizando 152 pacientes (Figura 16). Um total de 8 % não indicaram manifestações orais na descrição clínica, ainda que a doença periodontal faça parte do quadro diagnóstico da síndrome. Em 140 pacientes (92%) houve relatos de manifestações orais: periodontite (53,6%), perda precoce de dente decíduos (42,9%), gengivite (25,0%), perda dentaria (20,7%), perda óssea alveolar (17,9%), mobilidade (17,1%), sangramento gengival (6,4%), abscesso (4,3%), cárie (2,1%), reabsorção óssea mandibular e maxilar (1,4%) e retração gengiva (0,7%).

**Figura 16**  
**Síndrome de Papillon-Lefevre**



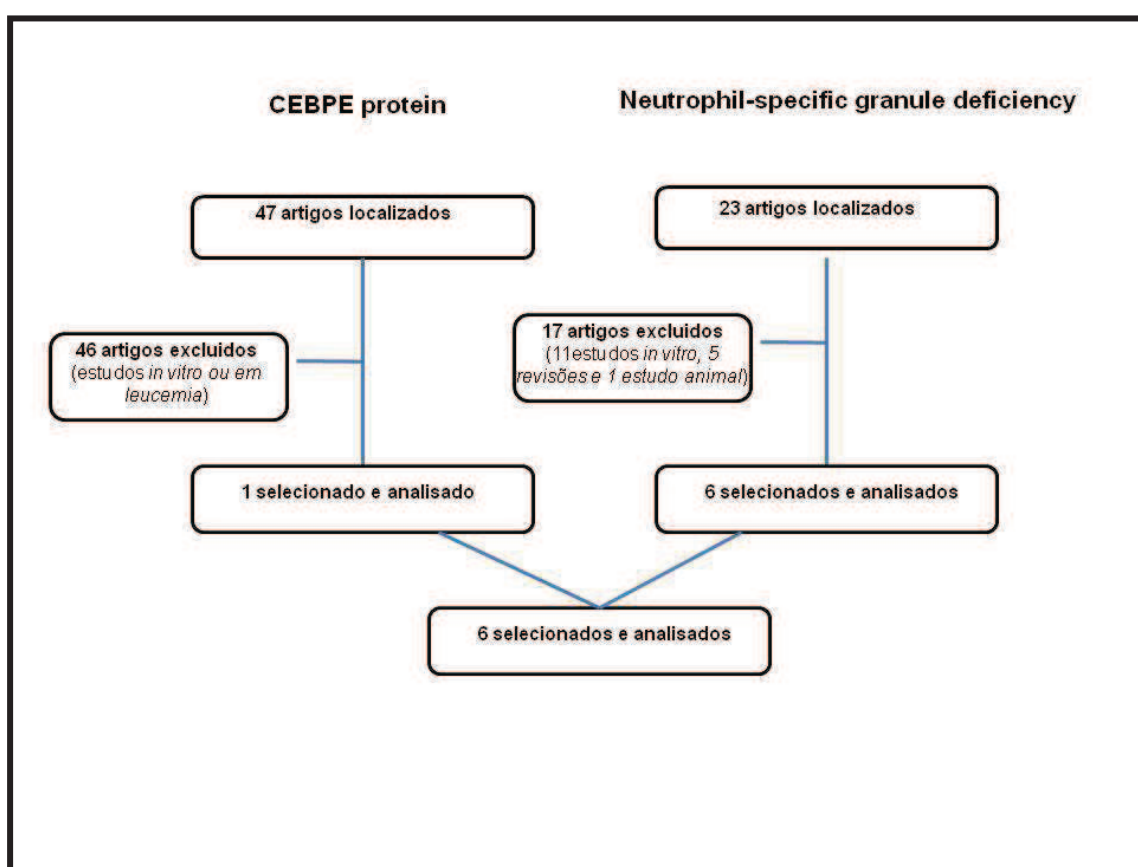
### 6.17) Deficiência de grânulos específicos - CEBPE: (*myeloid transcription factor*)

A busca realizada com o descritor "**CEBPE protein, human**" [*Supplementary Concept*]" (Apêndice 48) identificou 47 artigos, dos quais 46 eram estudos com linhagem leucêmicas e caracterização molecular e apenas 1 artigo que descreve um caso de deficiência de grânulo específico, onde foi encontrado uma mutação no gene **CEBPE**. A segunda busca foi realizada com o descritor "**Neutrophil-specific granule deficiency**" (Apêndice 49) onde foram

localizados 23 artigos (**Figura 17**), 17 foram excluídos por se tratarem de revisão, estudos *in vitro* e modelo animal. No total 6 artigos foram analisados descrevendo 6 pacientes e não houve nenhum relato de manifestação oral.

**Figura 17**

**Deficiência específica de grânulo - CEBPE: (*myeloid transcription factor*)**

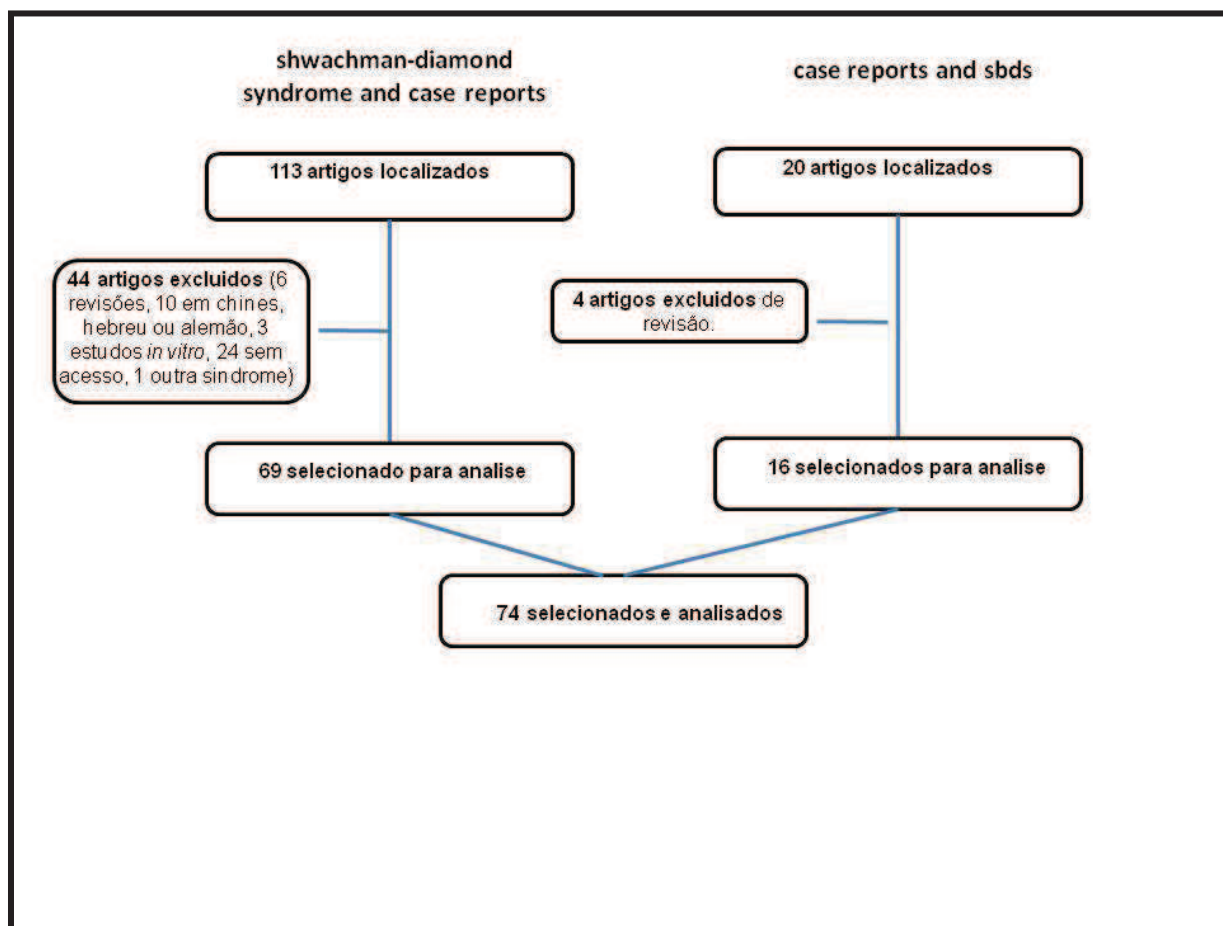


### 6.18) Síndrome de Shwachman-Diamond.

A busca realizada com o descritor "***shwachman-diamond syndrome and case reports***" (Apêndice 50) identificou 113 artigos. Foram excluídos 44 (6 revisões, 10 artigos em chinês, hebreu ou alemão, 3 estudos in vitro, 24 sem acesso, 1 sendo o relato de outra síndrome). A segunda busca foi realizada com o descritor "***case reports and SBDS***" (Apêndice 51) onde foram localizados 20 artigos e 4 foram excluídos por se tratarem de revisão.

No total, 74 artigos foram analisados descrevendo 131 pacientes (**Figura 18**). Não houve relato de manifestação oral para 115 pacientes (87,7%) apesar de manifestações orais estarem presente no quadro diagnóstico dessa síndrome. Apenas 11% apresentaram várias manifestações orais: Anormalidades de desenvolvimento (fenda palatine e fissure labial); cárie em idade precoce; "dentinogênese imperfeita (DI); odontocondrodisplasia; odontodisplasia.

Figura 18  
Síndrome de Shwachman-Diamond.



### 6.19) Doença granulomatosa crônica ligada ao X (CGD)

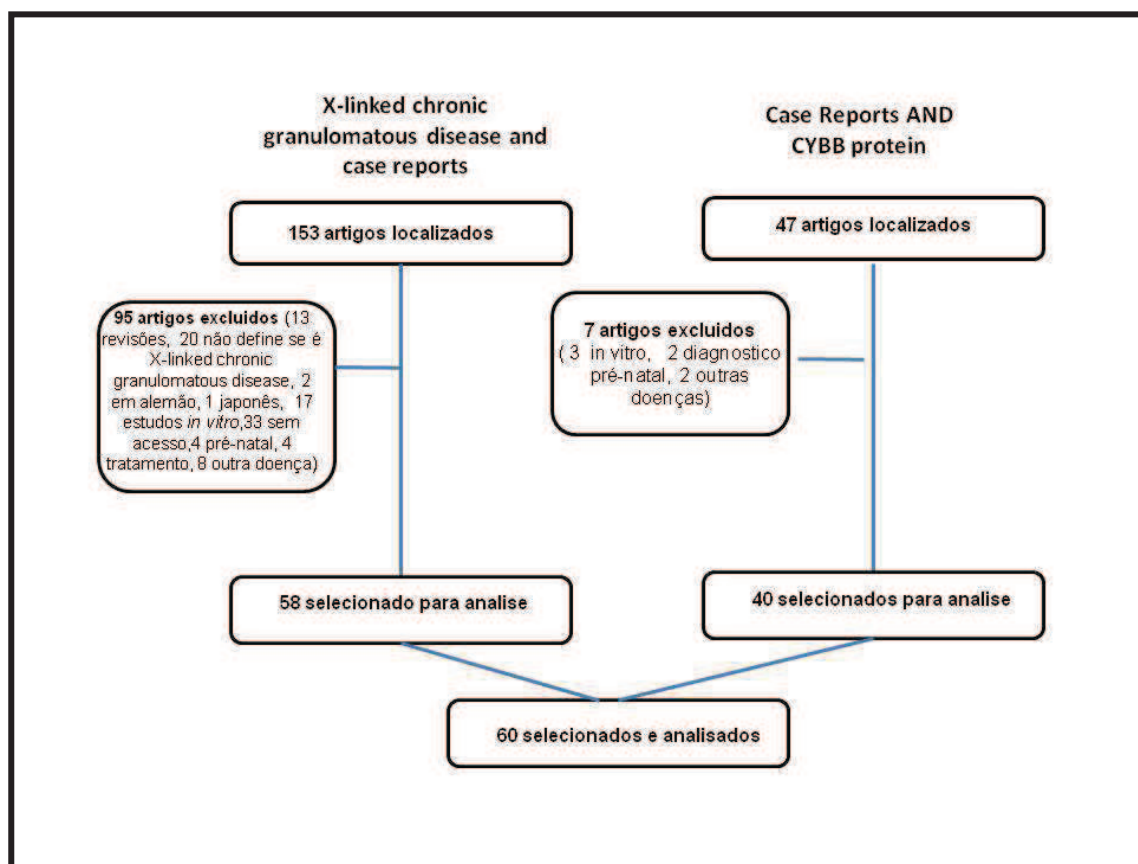
A busca realizada com o descritor "***X-linked chronic granulomatous disease and case reports***" (Apêndice 52) identificou 153 artigos, foram excluídos 95 artigos (13 revisões, 20 não são Doença granulomatosa crônica ligada ao X, 2 artigos em alemão, 1 em japonês, 17 estudos *in vitro*, 33 sem acesso, 4 estudos em pré-natal, 4 estudos sobre tratamento, 8 sobre outras

doenças). A segunda busca, “**CYBB protein AND Case Reports**” (Apêndice 53) localizou 47 artigos, 7 artigos foram excluídos. ( 3 estudos *in vitro*, 2 sobre diagnóstico pré-natal e 2 sobre outras doenças). (Figura 19).

A análise foi realizada com 60 artigos depois de excluir as sobreposições totalizando 89 pacientes. Um total de 77 pacientes não apresentou relato de manifestações orais (86,5%). Em 12 pacientes houve relato de manifestações orais: 66,6 % apresentavam estomatite e 33,5 apresenta úlceras orais.

Figura 19

Doença granulomatosa crônica ligada ao X (CGD)



## **6.20) Doença granulomatosa crônica autossômica (CGD) – CYBA [(Electron transport protein (p22phox))]**

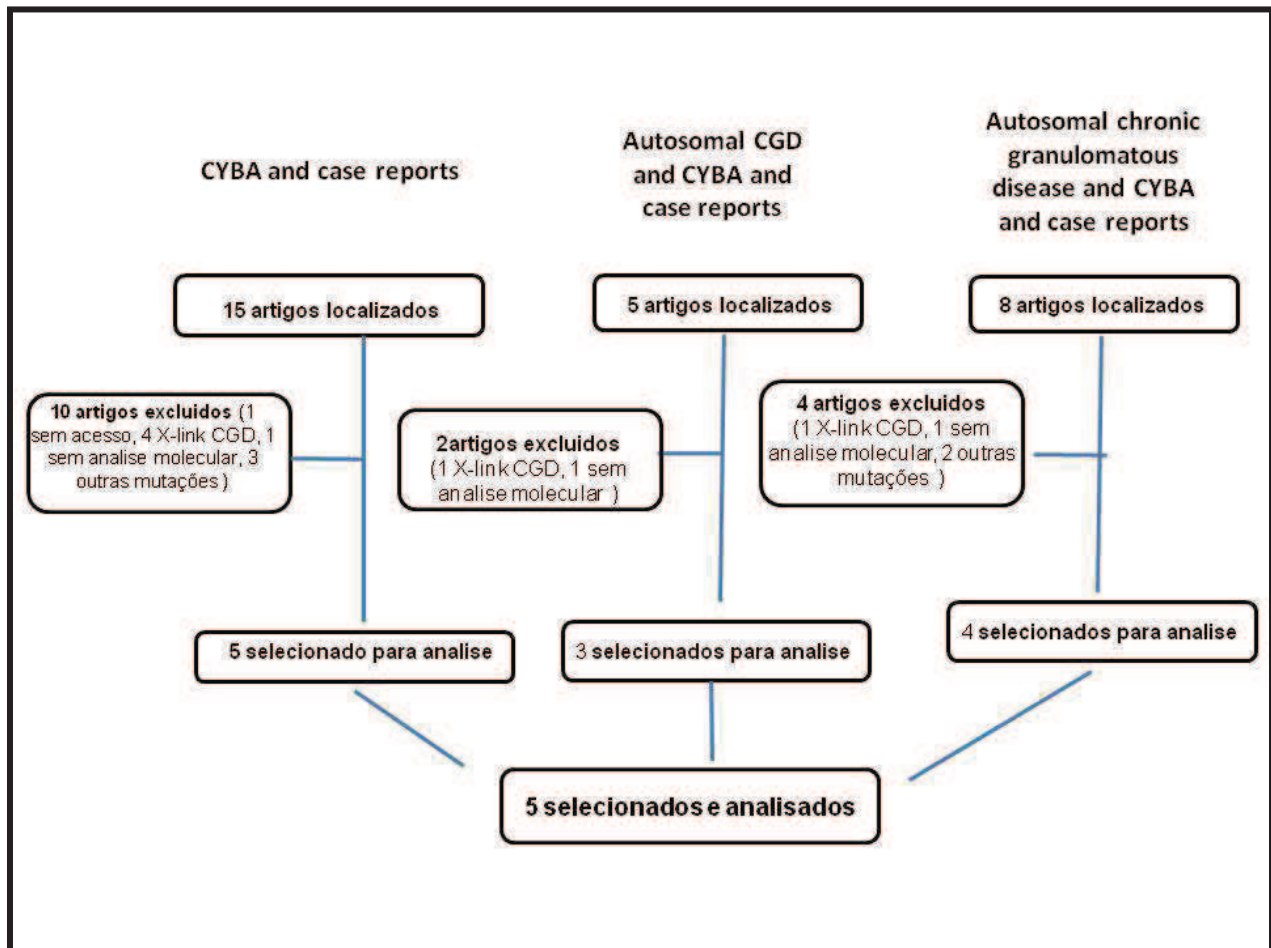
A busca realizada com o descritor “**CYBA and case reports**” (Apêndice 54) identificou 15 artigos, foram excluídos 10 artigos (1 sem acesso, 4 DGC ligado ao X, 1 sem análise molecular, 3 sobre outras mutações). A segunda busca foi baseada nos descritores “**Autosomal CGD and CYBA and case reports**” (Apêndice 55) selecionado 5 artigos, 2 artigos excluídos (1 de DGC ligado ao X e 1 sem análise molecular). A terceira busca realizada utilizou os descritores “**Autosomal chronic granulomatous disease and CYBA and case reports**” (Apêndice 56) localizando 8 artigos, sendo que 4 artigos foram excluídos (1 de DGC ligada ao X, 1 sem análise molecular e 2 sobre outras mutações).

A análise foi realizada com 5 artigos depois de excluir as sobreposições totalizando 11 pacientes e nenhuma alteração oral foi relatada. (Figura 20)

Em adicional fizemos uma busca utilizando “**Autosomal chronic granulomatous disease and p22phox and case reports**” (Apêndice 57) foi localizado 1 artigo, já encontrado nas outras buscas, e este foi eliminado por se relativo a Doença granulomatosa crônica ligada ao X, e quando utilizamos os descritores “**Autosomal chronic granulomatous disease and Electron transport protein and case reports**” (Apêndice 58) localizamos também 1 artigo, que foi excluído por ser uma mutação no Componente p67-phox, não descrita na classificação de IDP utilizada como referência (Notarangelo, 2009) (anexo 1). Foram analisados, portanto, 6 pacientes e não houve relato de alteração oral.

Figura 20

## Doença granulomatosa crônica autossômica (CGD) – CYBA



### 6.21) Doença granulomatosa crônica autossômica (CGD) – NCF1: Adapter protein (p47phox)

A busca realizada com o descritor “neutrophil cytosolic factor 1 and case reports” (Apêndice 59) identificou 26 artigos, foram excluídos 14 artigos (1 sem acesso, 1 modelo murino, 2 em japones, 3 sem análise molecular, 1 sem dados clínicos, 1 estudo in vitro, 3 sobre outras mutações, 1 revisão, 1

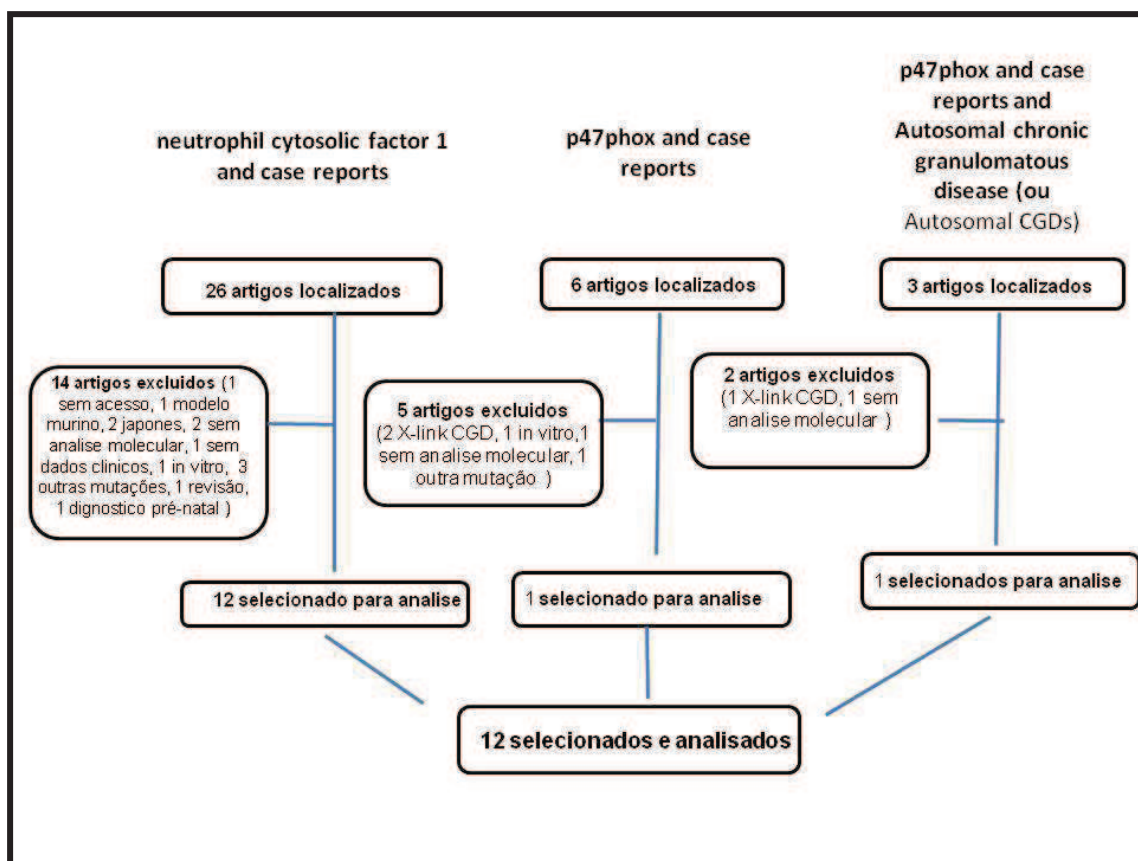


diagnóstico pré-natal). A segunda busca foi baseada nos descritores “**p47phox and case reports**” (Apêndice 60) localizou 6 artigos e 5 artigos foram excluídos (2 de DGC ligada ao X, 1 estudo *in vitro*, 1 sem análise molecular, 1 sobre outra mutação), a terceira busca foi “**p47phox and case reports and Autosomal chronic granulomatous disease (ou Autosomal CGDs)**” (Apêndice 61) localizando 3 artigos, 2 artigos foram excluídos (1 DGC ligada ao X, 1 sem análise molecular).

A análise foi realizada com 12 artigos depois de excluir as sobreposições totalizando 46 pacientes (Figura 21); 91,3% (N=4) não relataram nenhuma manifestação oral, 1 paciente apresentou estomatite e 1 outro apresentou úlceras orais.

Figura 21

Doença granulomatosa crônica autossômica (CGD) – NCF1



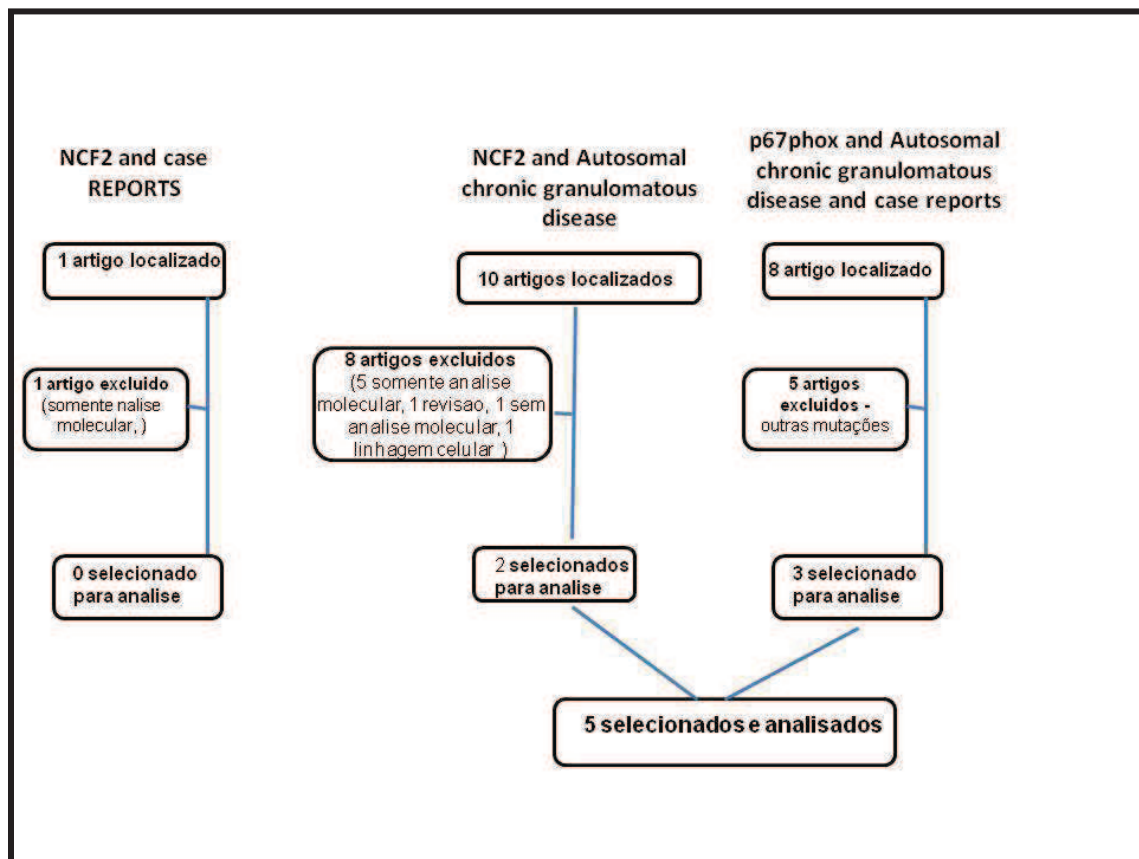
## **6.22) Doença granulomatosa crônica autossômica (CGD) – NCF2: Activating protein (p67phox)**

A busca realizada com o descritor **“NCF2 and case reports”** (Apêndice 62) identificou 1 artigo que foi eliminado por apresentar somente a análise molecular sem descrever clinicamente o paciente. A segunda busca baseada nos descritores **“NCF2 and case controls AND Autosomal chronic granulomatous disease”** (Apêndice 63) não encontrou nenhum artigo; a terceira busca foi **“NCF2 and Autosomal chronic granulomatous disease”** e localizou 10 artigos (Apêndice 64), sendo que 8 artigos foram excluídos (5 somente realizaram análise molecular, 1 revisão, 1 sem análise molecular, 1 linhagem celular). A última busca foi baseada nos descritores **“p67phox and Autosomal chronic granulomatous disease and case reports”** (Apêndice 65), localizando 8 artigos, 5 artigos foram excluídos por analisarem outras mutações.

A análise foi realizada com 5 artigos depois de excluir as sobreposições totalizando 17 pacientes (Figura 22) e apenas houve relato de manifestação oral em 1 paciente com candidíase oral, enquanto que em 94,1% (N=16) não houve relato de nenhuma manifestação oral.

Figura 22

## Doença granulomatosa crônica autossômica (CGD) – NCF2

6.23) Deficiência da cadeia  $\beta 1$  do receptor de IL-12 and IL-23

Foram feitas 3 buscas para identificar os relatos de casos de deficiência da cadeia  $\beta 1$  do receptor de IL12 e IL23. A **Figura 23** demonstra a sistemática da busca.

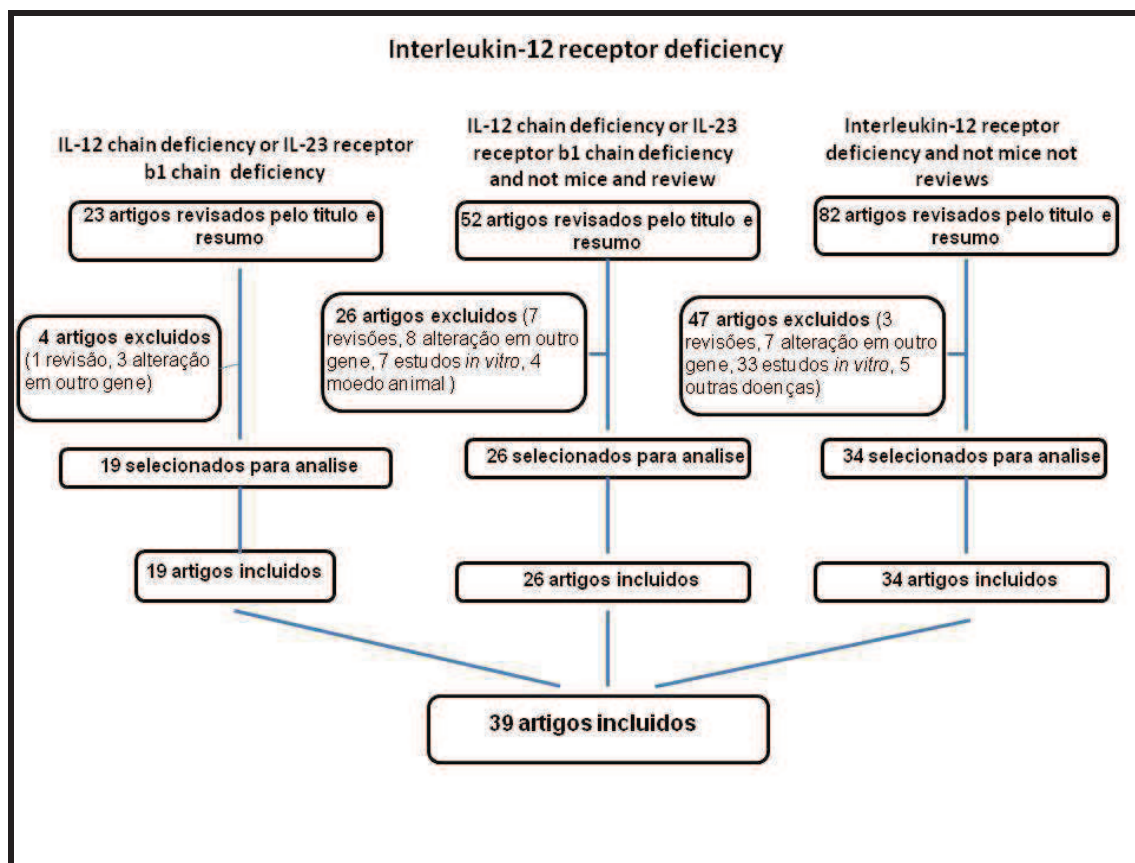
A primeira busca 1 utilizou os descritores ***“IL-12 chain deficiency or IL-23 receptor b1 chain deficiency”*** (Apêndice 66) e localizou 23 artigos, sendo 4 artigos excluídos (1 de revisão, 3 sendo sobre alteração em outro gene). A segunda busca utilizou os descritores ***“IL-12 chain deficiency or IL-***

**23 receptor b1 chain deficiency and not mice and review” (Apêndice 67)** e localizou 52 artigos, sendo que 26 artigos foram excluídos (7 artigos de revisões, 8 por se tratarem de alteração em outro gene, 7 estudos *in vitro*, 4 modelo animal). A terceira busca foi **“Interleukin-12 receptor deficiency and not mice not reviews” (Apêndice 68)** e localizou 82 artigos, sendo 47 artigos foram excluídos (3 revisões, 7 alteração em outro gene, 33 estudos *in vitro*, 5 outras doenças)

Após a exclusão da sobreposição de artigos repetidos nas três buscas foram analisados 39 artigos que totalizavam 245 pacientes. Em apenas um artigo havia uma análise de 141 pacientes de 30 países diferentes, onde a descrição clínica dos casos não estava claramente detalhada. Optamos por excluir este estudo de 141 pacientes. Do restante de pacientes analisados, encontramos 46% sem alterações orais, 45% relatos clínicos insuficientes e 7% apresentaram alterações orais (candidíase oral, infecção por herpes, estomatite, mastoidite causando paralisia do nervo facial).

Figura 23

## Deficiência da cadeia b1 do receptor de IL-12 and IL-23



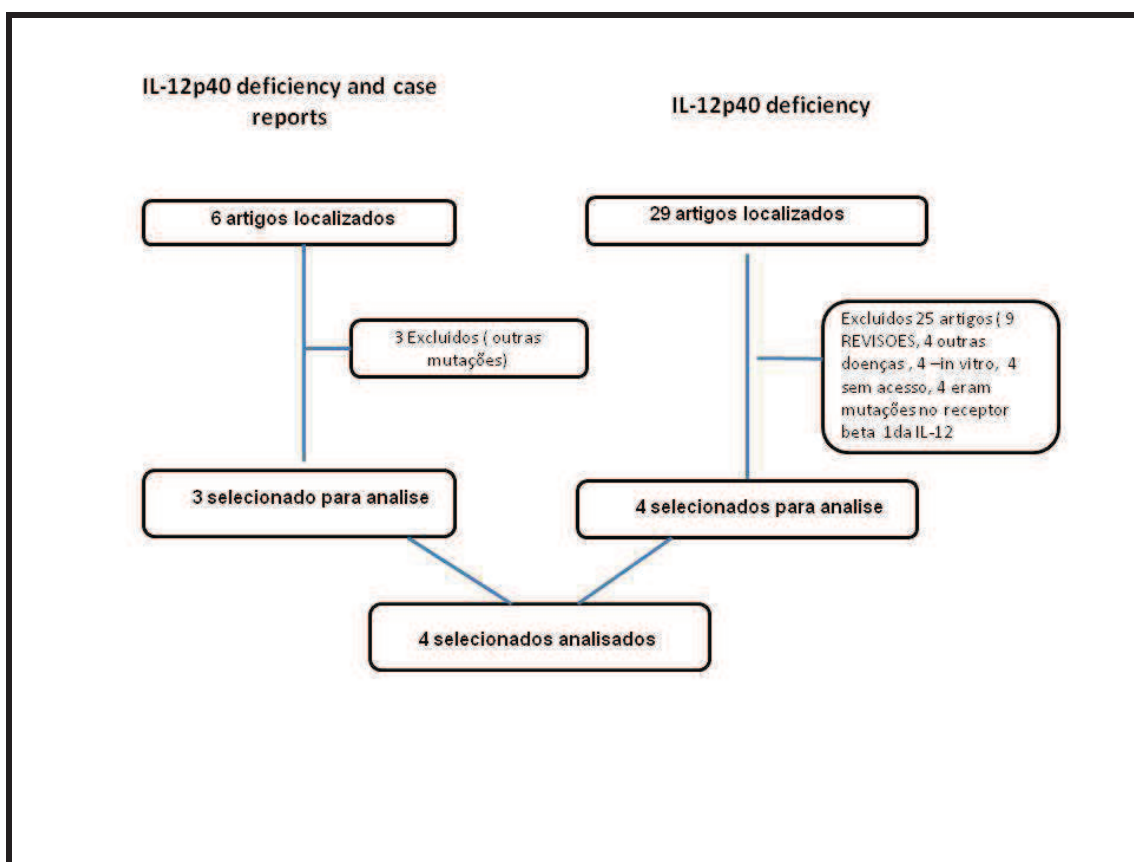
## 6.24) Deficiência de IL-12p40

A busca realizada com o descritor “*IL-12p40 deficiency and case reports*” (Apêndice 69) identificou 6 artigos. Foram excluídos 3 artigos por se tratarem de pacientes com outras mutações (STAT5b e IFN- $\gamma$ R1). Nos 3 artigos selecionados foram analisados 3 pacientes e não houve relato de alteração oral.

Uma segunda busca, mais aberta, foi realizada, aonde utilizamos o descritor “*IL-12p40 deficiency*” (Apêndice 70) e restringindo para estudos murinos. Nessa busca foram localizados 29 artigos, sendo que 25 artigos foram excluídos (4 revisões, 4 relatos de pacientes com outras doenças não relacionadas como tuberculose e lupus, por exemplo, 3 artigos de pacientes portadores de mutações nos genes STAT5b, IFN- $\gamma$ R2 e IFN- $\gamma$ R1, 4 estudos *in vitro*). (Figura 24). Um total de 4 artigos foram analisados totalizando 18 pacientes e não houve nenhum relato de manifestações orais.

**Figura 24**

**Deficiência de IL-12p40**

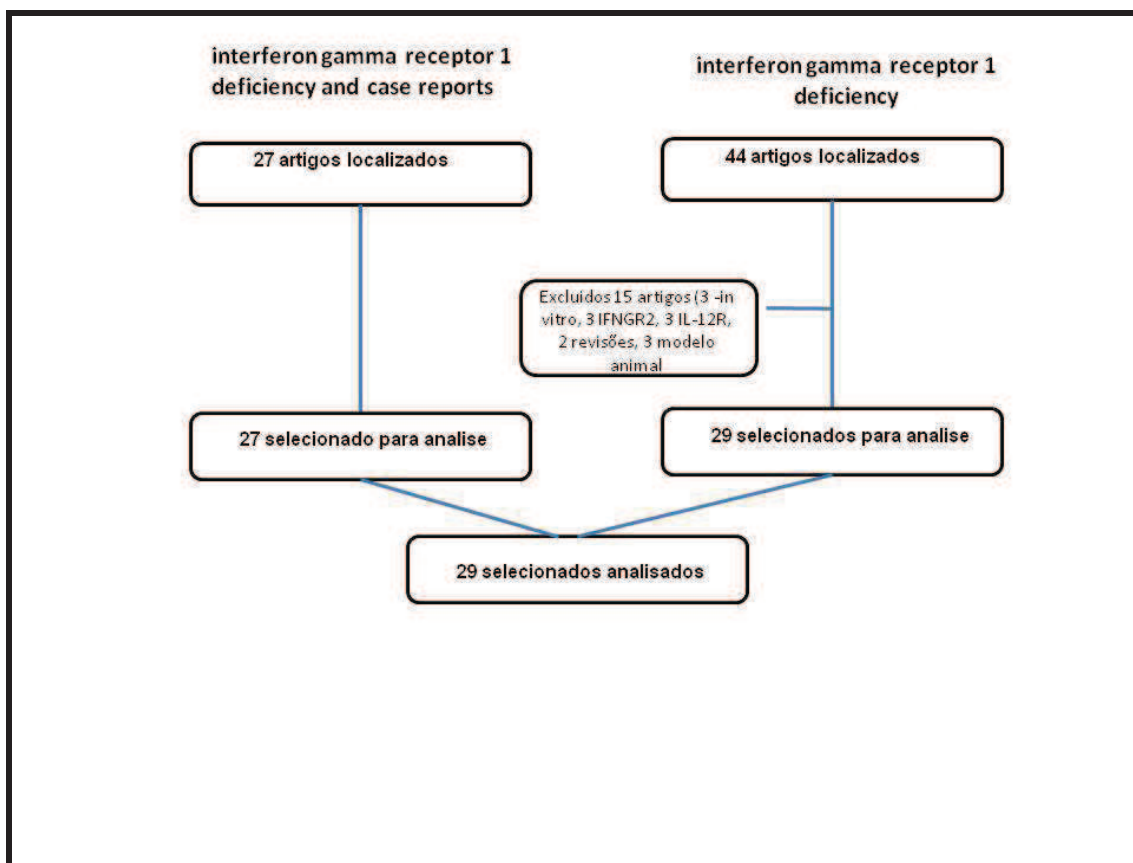


### 6.25) Deficiência do receptor 1 de IFN- $\gamma$

A busca realizada com o descritor "*interferon gamma receptor 1 deficiency and case reports*" (Apêndice 71) identificou 27 artigos, todos foram localizados na busca do item 25. Em nenhum destes relatos clínico houve menção a alterações orais.

Uma segunda busca foi realizada, mais aberta, aonde somente utilizamos o descritor "*interferon gamma receptor 1 deficiency*" (Apêndice 72) e restringimos para estudos murinos e revisões. Foram localizados 44 artigos e foram excluídos 15 artigos (3 estudos in vitro, 3 sobre IFNGR2, 3 sobre IL-12R, 2 revisões, 3 modelo animal). Foram incluídos para a análise 29 artigos sendo que 27 artigos já haviam sido localizados na primeira busca. Em nenhum destes artigos houve relato clínico de manifestação oral (Figura 25).

Figura 25

Deficiência do receptor 1 de IFN- $\gamma$ 6.26) Deficiência do receptor 2 de IFN- $\gamma$ 

A busca realizada com o descritor “*interferon gamma receptor 2 deficiency and case reports*” (Apêndice 73) identificou 41 artigos e 33 artigos eram sobre pacientes com deficiência do receptor 1 de gama interferon, 1 artigo descreveu 2 pacientes sendo um com deficiência do receptor 1 e o outro do receptor 2, 1 artigo descrevia um paciente com deficiência de IL12P40 e somente 5 eram descrições de pacientes com deficiência do receptor 2. É importante ser mencionado que na maioria dos casos os

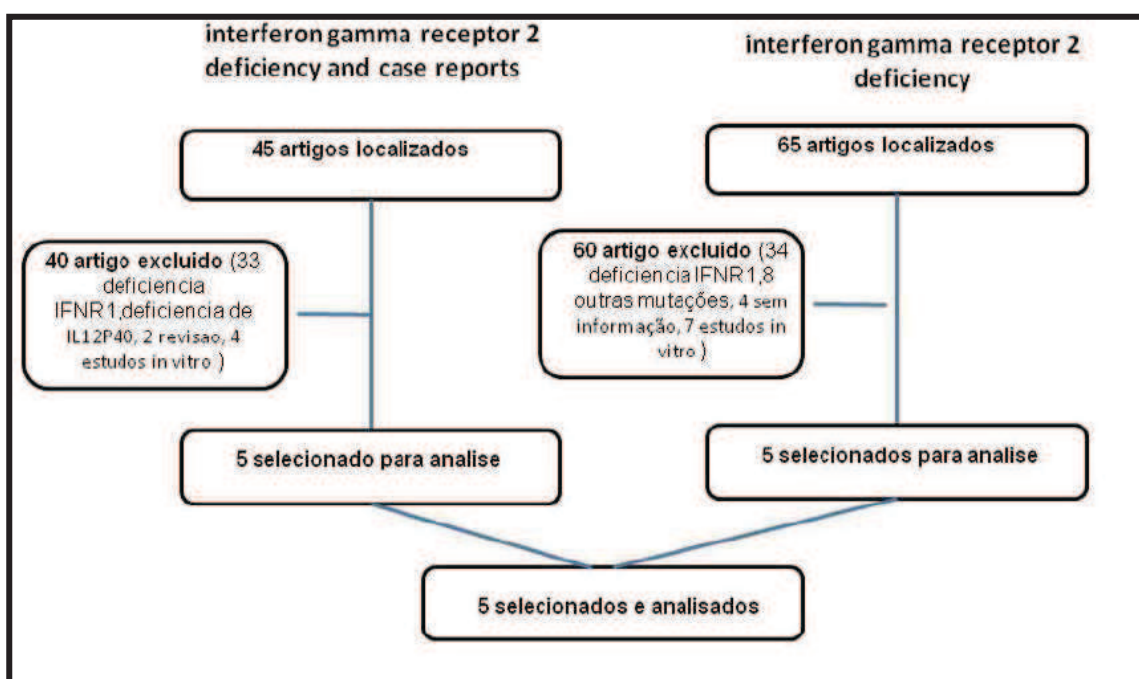


pacientes foram investigados para a deficiência do receptor 2. Nesses 5 artigos em que foram descritos 9 pacientes não houve relatos de alterações orais.

Uma segunda busca foi realizada, mais aberta, aonde somente utilizamos o descritor “*interferon gamma receptor 2 deficiency*” (Apêndice 74) e excluímos estudos murinos e revisões. Foram localizados 65 artigos e, como na busca anterior, 33 artigos eram de pacientes com mutações no receptor 1 de IFN- $\gamma$ , 7 estudos *in vitro*, 3 em modelo animal, 2 artigos tinham pacientes com defeitos no receptor 1 e 2 de IFN- $\gamma$ , 8 tratavam de pacientes com outro tipo de mutações, para 4 não obtivemos informações, 5 artigos eram sobre pacientes com mutação no receptor 2 de IFN-  $\gamma$  que já haviam sido localizados na primeira busca e que não continham nenhum relato clínico de alterações orais (Figura 26).

Figura 26

Deficiência do receptor 2 de IFN- $\gamma$

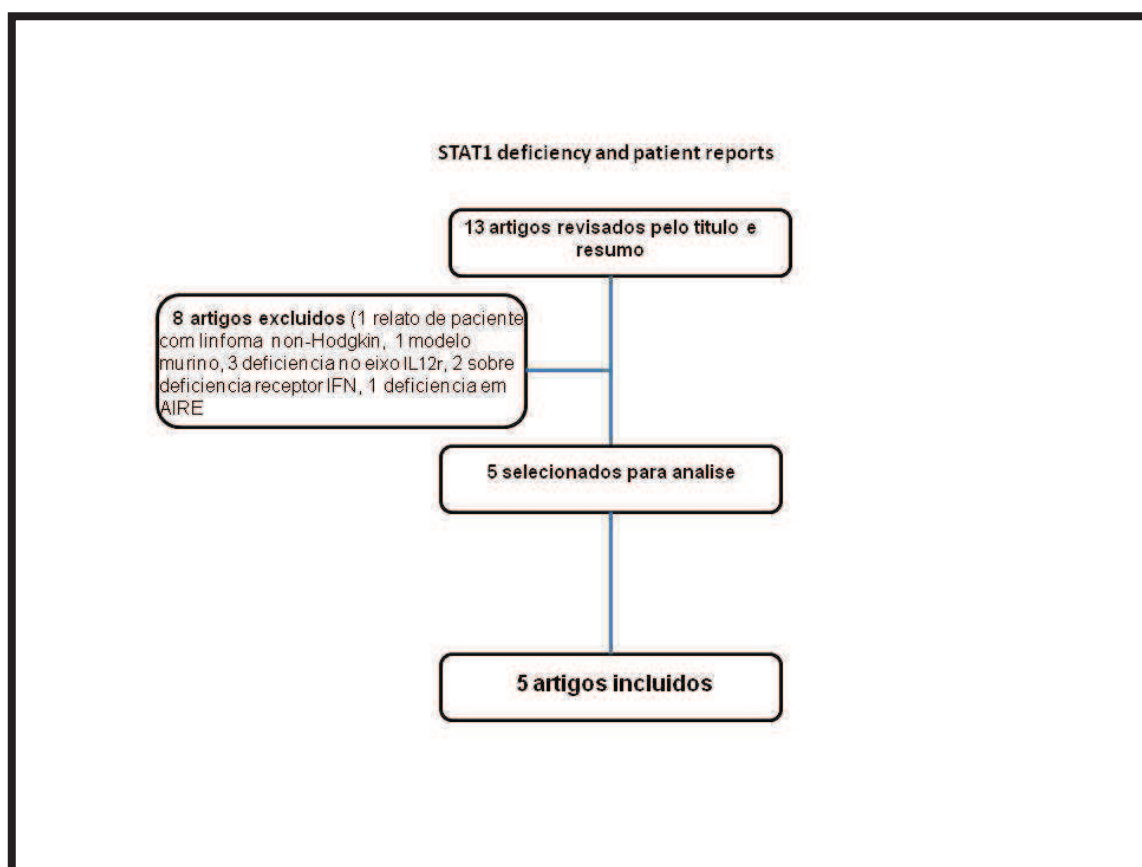


### 6.27) Deficiência de STAT1

A busca realizada utilizando **“STAT1 deficiency and case reports”** localizou 9 artigos (**Apêndice 75**), e a segunda busca utilizando **“STAT1 deficiency and patient reports”** localizou 13 (**Apêndice 76**), onde todos os artigos da primeira busca estavam incluídos. Foram excluídos 8 artigos por não relatarem deficiência de STAT1 (**Figura 27**) e foram analisados 5 artigos, totalizando 9 pacientes, nenhum dos quais relatado como tendo manifestações orais.

**Figura 27**

#### Deficiência de STAT1

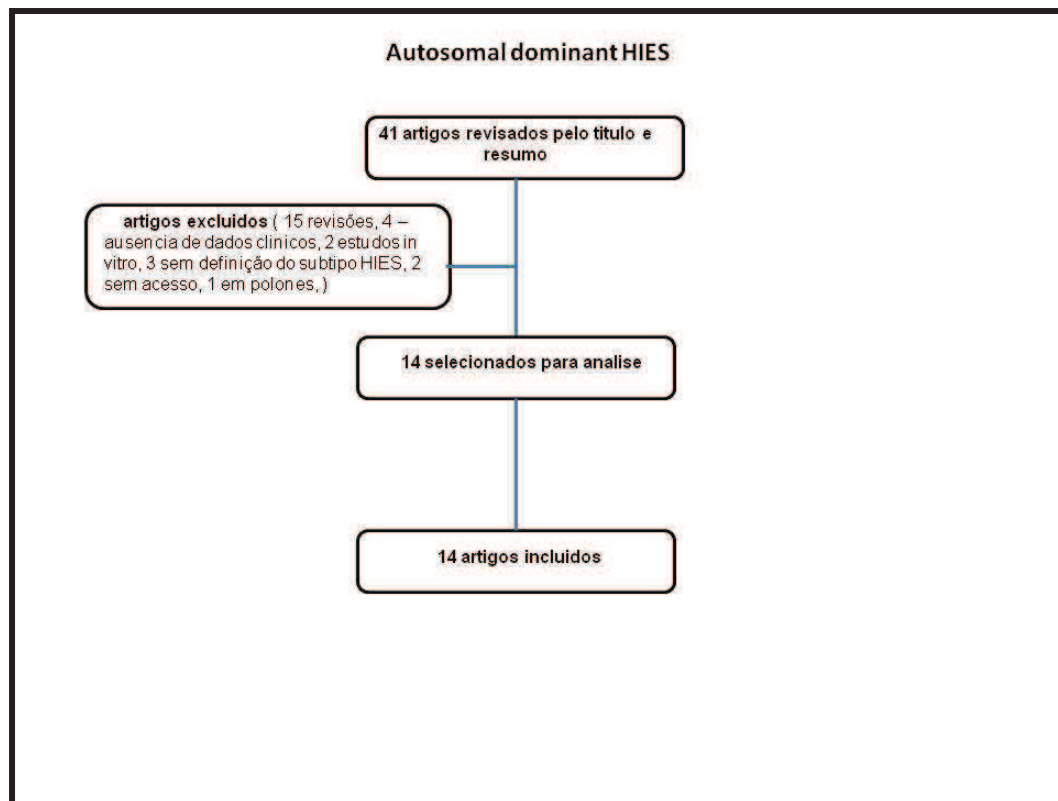


### 6.28) Síndrome de hiper IgE Autossômica Dominante

Foi realizada uma busca com “*autosomal dominant hyper IgE and case report*” (Apêndice 77) e foram localizados 8 artigos. Uma segunda ampliada utilizando “*autosomal dominant hyper IgE*” (Apêndice 78) localizou 41 artigos, incorporando todos da primeira busca.

A seleção dos artigos se baseou nos artigos que definiram a *AD hyper-IgE* e caracterizam o envolvimento de STAT3. É preciso ressaltar que na referência que utilizamos como base está sendo indicando o gene STAT1, mas toda a literatura recuperada relaciona a síndrome de hiper IgE autossômica dominante com STAT3 e não STAT1. Foram excluídos 27 artigos (15 revisões, 4 por ausência de dados clínicos, 2 estudos *in vitro*, 3 sem definição do subtipo HIES, 2 sem acesso, 1 em polonês) (Figura 28). Foram relatados 178 pacientes e 40,4% não apresentaram nenhuma manifestação oral. Dos 59,6% que apresentaram manifestações orais, 67,9% apresentaram retenção prolongada de dentes decíduos, 27,4% apresentaram candidíase oral e 3,8% relato de infecções dentárias e condições precárias dos dentes.

**Figura 28**  
**AD hyper-IgE**



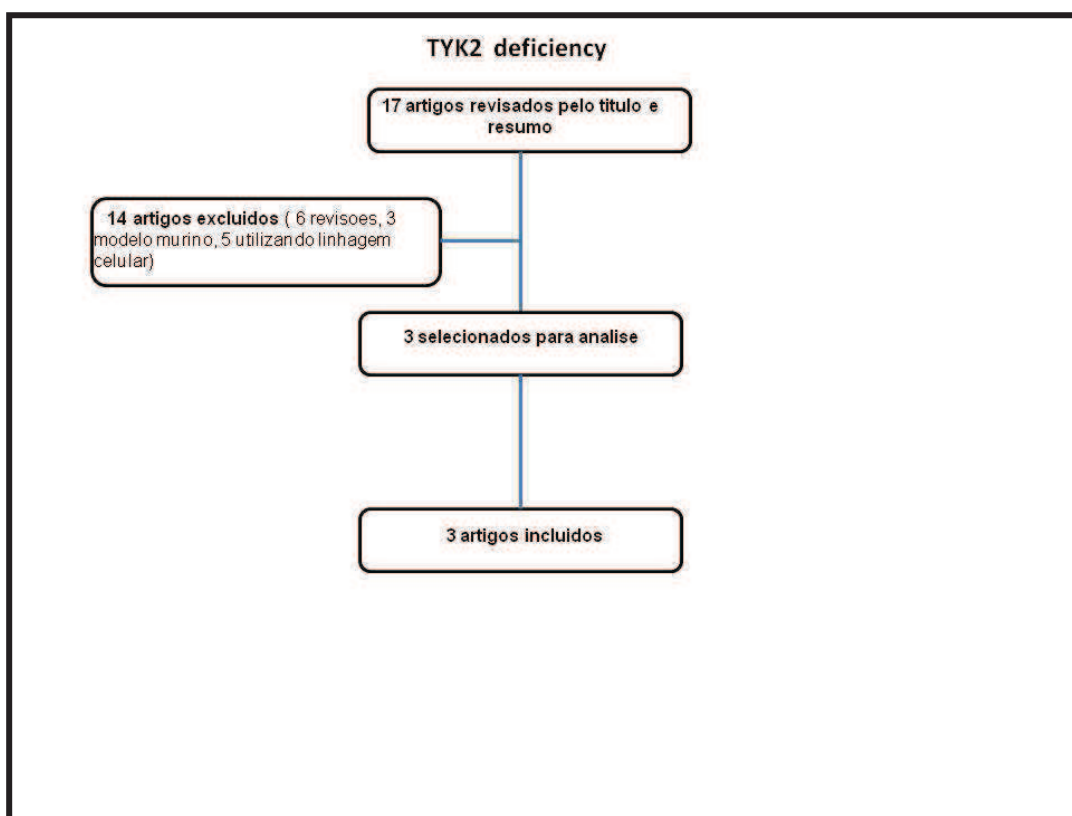
## 6.29) Síndrome de Hiper IgE autossômica recessiva

### a) Deficiência de TYK2

A definição do descritor teve que ser feita utilizando *TYK2 kinase*. A busca de “***TYK2 kinase deficiency and case reports***” não encontrou nenhuma publicação. Passamos então para a busca combinando “***TYK2 Kinase***”[Mesh] AND ***deficiency and case reports***” que localizou um relato de caso em 2006. Uma nova busca foi realizada utilizando “***TYK2 Kinase***”[Mesh] AND ***deficiency***” e foram encontrados 34 artigos que, ao colocarmos o limite de busca para humanos, se reduziram a 17 artigos. (**Apêndice 79**). Destes, 14

foram excluídos como mostrado na **Figura 29**. Dos 3 artigos analisados, correspondendo a 3 pacientes, 1 deles apresentou candidíase oral.

**Figura 29**  
**Deficiência de TYK2**

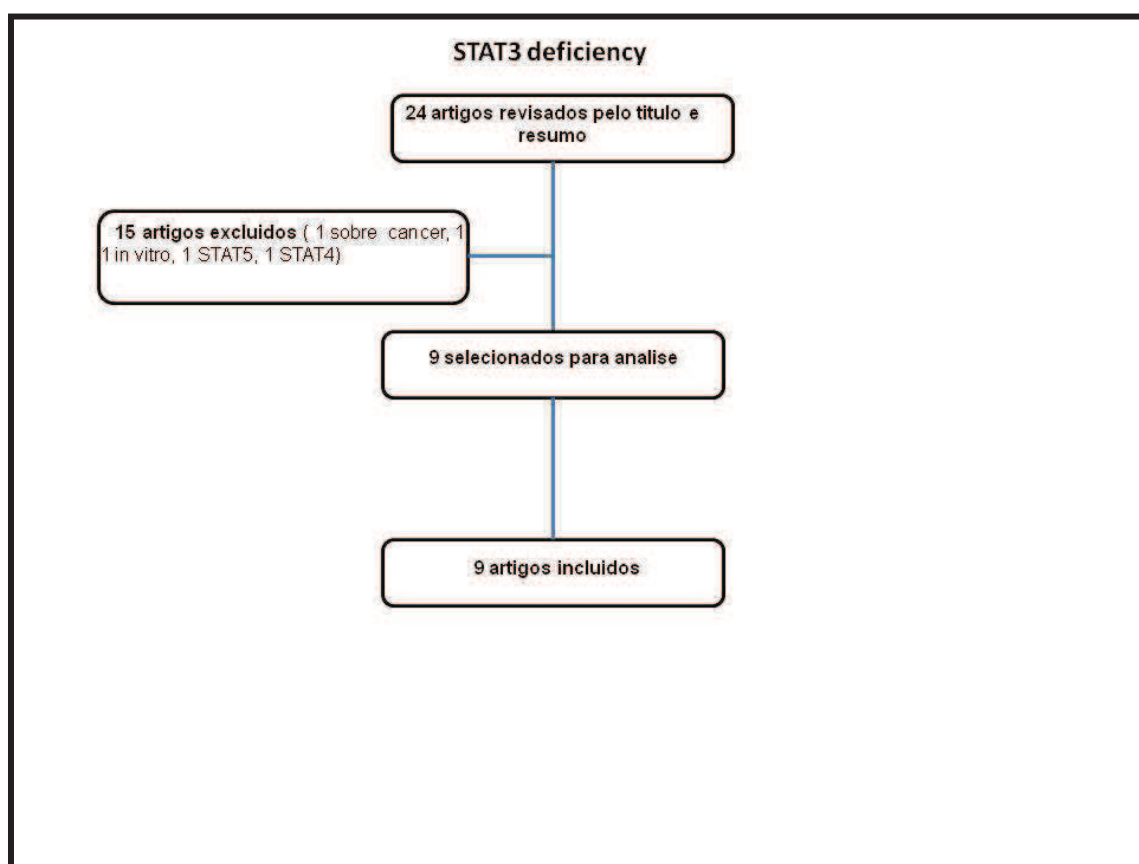


#### b) Deficiência de STAT3

A busca realizada utilizando "**STAT3 Transcription Factor**"[Mesh] AND "**Case Reports**" com limite de busca em humanos em localizou 24 artigos (**Apêndice 80**) e 15 foram excluídos (10 sobre câncer, 1 em alemão, 1 em polonês, 1 sobre STAT5, 1 sobre STAT4, 1 estudo *in vitro*). Um total de 9 artigos foram selecionados (**Figura 30**), totalizando 19 pacientes analisados.

73,7% (n=14) dos pacientes não apresentavam manifestações orais e, dos 26,3% (n= 5 pacientes) apresentavam manifestações orais, 2 pacientes apresentavam com candidíase oral e 3 pacientes com retenção prolongada de dentes decíduos.

**Figura 30**  
**Deficiência de STAT3**



### 6.30) Proteinose Alveolar Pulmonar

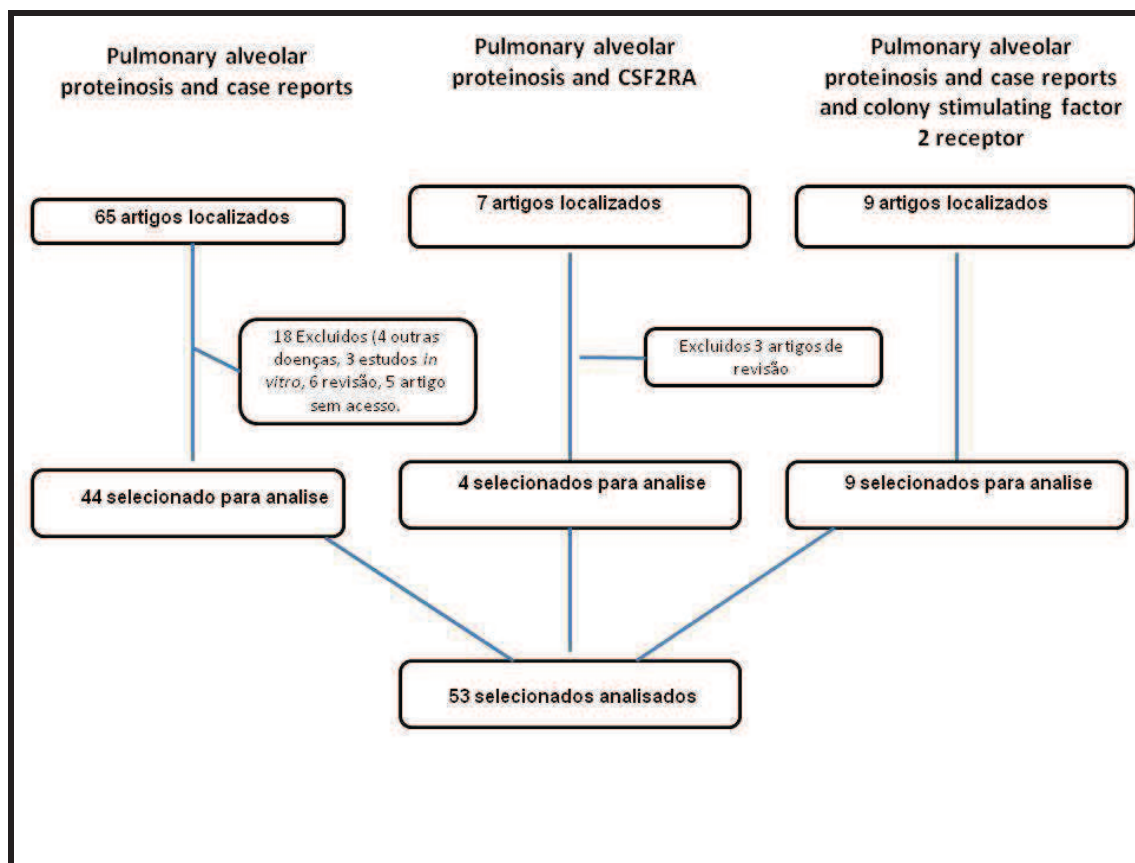
Iniciamos a busca utilizando *“Pulmonary alveolar proteinosis and case reports”* e, limitando a estudos humanos e excluindo estudos em camundongo e revisões, localizamos 573 artigos. Refinamos a busca

restringindo-nos aos artigos que associassem com **GM-CSF**; nessa seleção foram encontrados 62 artigos (**Apêndice 81**), dos quais 4 não estavam relacionados com o assunto, 3 eram estudos *in vitro*, 6 eram artigos de revisão, 5 artigos aos quais não tivemos acesso. Foram analisados 44 artigos que totalizavam 53 pacientes, e não houve relato de manifestações orais em nenhum destes pacientes. É necessário mencionar que os relatos estavam muito direcionados para o diagnóstico da proteinose e dos aspectos dos vários tratamentos.

Uma segunda busca foi realizada utilizando os descritores "***Pulmonary alveolar proteinosis and CSF2RA***" (**Apêndice 82**) para relacionar com o gene identificado na classificação de IDP (Notarangelo, 2009) (**anexo 1**). Nessa busca encontramos 7 artigos, todos já localizados na primeira busca, 3 eram revisões e 4 relatos de casos. Destes relatos de casos, que totalizavam 11 pacientes a serem analisados, não houve nenhum relato de alterações orais.

O mesmo ocorreu na terceira busca "***Pulmonary alveolar proteinosis and case reports and colony stimulating factor 2 receptor***" (**Apêndice 83**) aonde foram encontrados 9 artigos, nenhum em sobreposição com a busca anterior, totalizando uma análise de 15 pacientes e nenhum relato de manifestação oral (**Figura 31**).

**Figura 31**  
**Proteinose Alveolar Pulmonar**



### **6.31) Análise global e comparativa dos resultados:**

A revisão sistemática da literatura científica, realizada para avaliar a frequência das manifestações orais e dentárias nas IDP com alterações de número e/ou função de fagócitos permitiu analisar dados de um total de 1721 pacientes, relatados nos 632 artigos analisados.

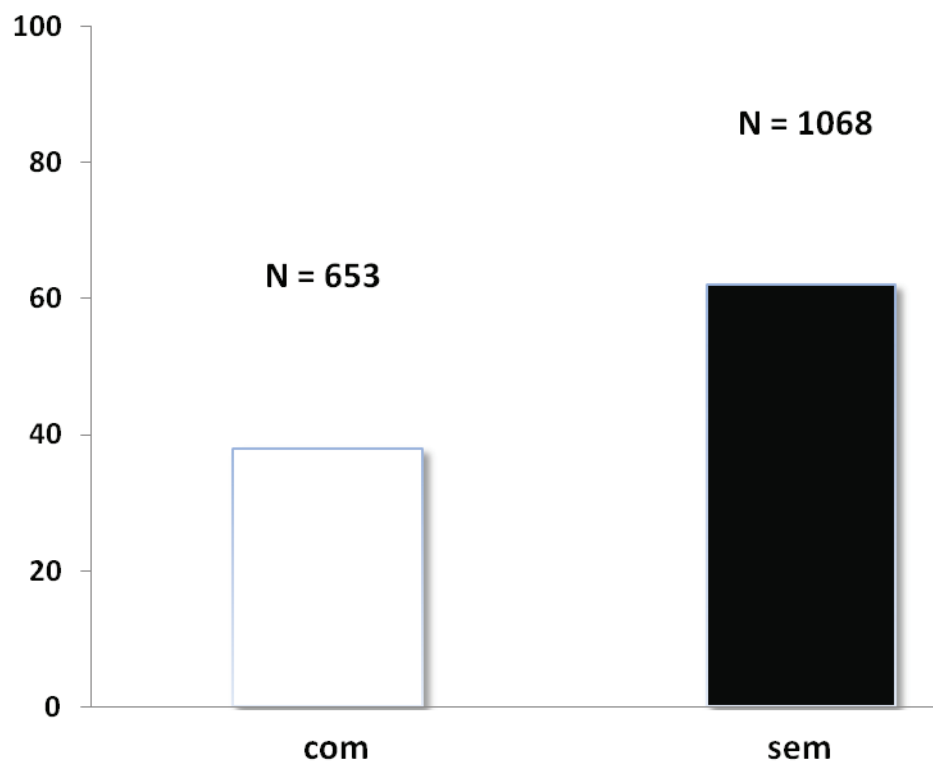
Dentre estes 1721 pacientes, 653 (37,9%) apresentaram relato de alguma manifestação oral e/ou dentária na descrição clínica do caso, enquanto 1068 não apresentaram qualquer relato de manifestação oral e/ou dentária. A



**Figura 31** mostra o percentual de pacientes quanto à presença ou ausência de relatos de manifestações orais e dentárias nas descrições dos casos clínicos dos artigos analisados.

Os dados dos resultados encontrados na revisão sistemática estão sintetizados nas tabelas 1 e 2. A **Tabela 1** apresenta os dados das freqüências das manifestações orais e dentárias relatadas nos pacientes analisados, de acordo com a ordem seqüencial proposta na classificação de IDP (Notarangelo, 2009) (**Anexo 1**).

Já a **Tabela 2** apresenta a síntese das manifestações orais e dentárias relatadas nas desordens de fagócitos que apresentaram, em algum momento da análise, relato de manifestação oral e dentária, ou seja: Neutropenias Congênitas Graves; Síndrome de Kostmann; Neutropenias com malformações cardíacas e urogenitais; Neutropenia Cíclica; LAD-1; LAD-2; LAD-3; Periodontite Juvenil Localizada; Síndrome de Papillon-Lefrèvre; Síndrome de Schwachman-Diamond; Doença Granulomatosa Crônica ligada ao X; Doença Granulomatosa Crônica autossômica; Deficiência da cadeia  $\beta$ -1 do receptor de IL-12 e IL-23; Deficiência de STAT-1; Síndrome de Hiper IgE autossômica dominante e Síndrome de Hiper IgE autossômica recessiva.

**Figura 31****Manifestações orais**













Analizamos também a distribuição dos pacientes estudados de acordo com o tipo de desordens de número e/ou função de fagócitos analisada. (**Figura 32**). De uma maneira geral, foi analisado um número significativo de casos relatados pelo tipo de doença de fagócitos. Algumas doenças estudadas, porém, possuem poucos relatos de caso clínicos descritos na literatura, principalmente as mais recentemente reconhecidas, pois nestes casos ocorre uma maior ênfase na caracterização molecular da doença.

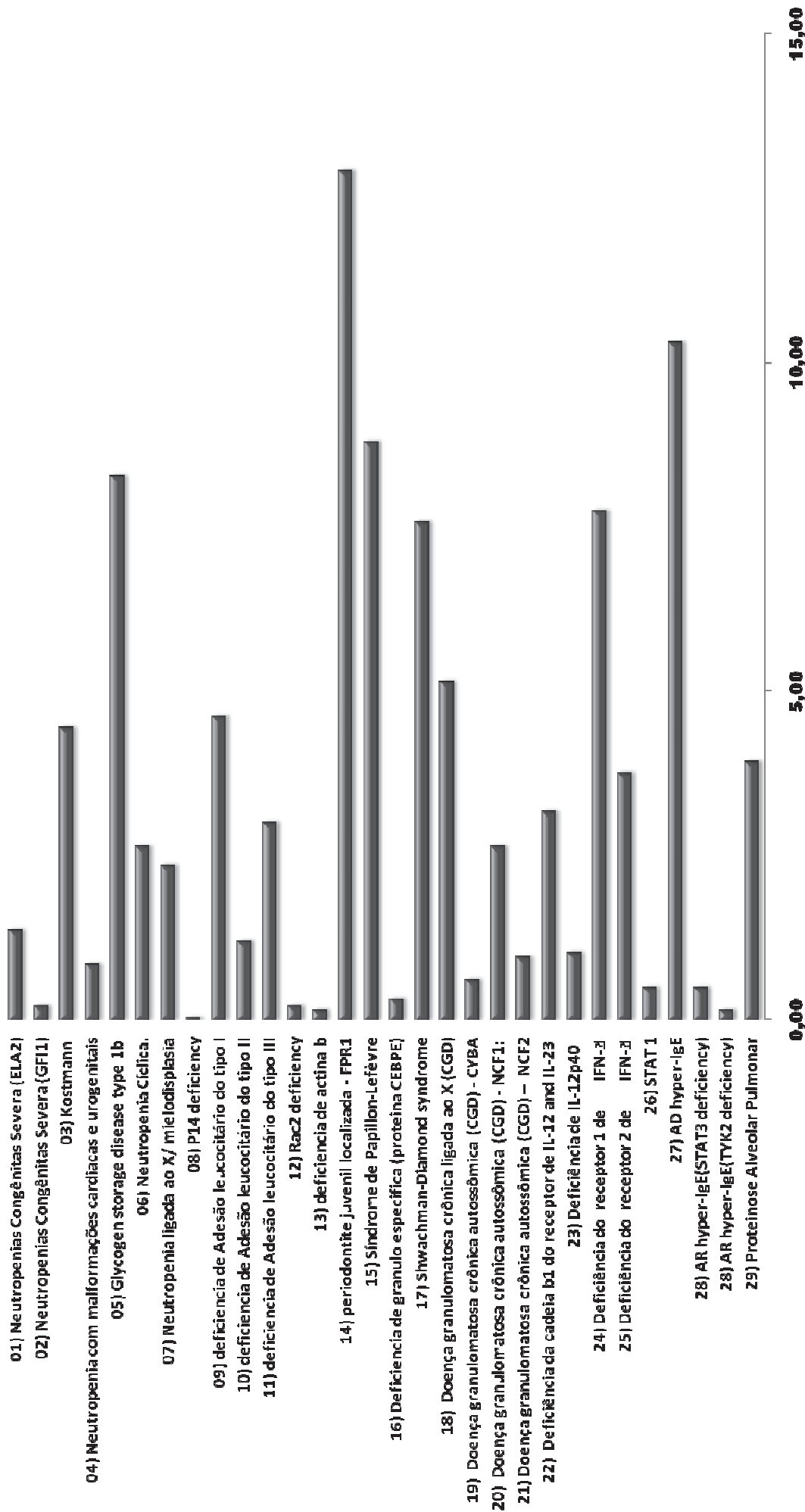
Outro aspecto analisado foi a comparação entre a freqüência das diferentes manifestações orais relatadas nos casos clínicos analisados (**Figura 33**). Nessa análise encontramos de uma maneira impactante, um total de 68% de doença periodontal, correspondente a 446 pacientes dos 653 pacientes com manifestação oral e dentária. A doença periodontal foi, portanto, a principal manifestação oral relatada nos pacientes com defeitos de fagócitos. A segunda manifestação oral mais relatada dentre os casos analisados foi a perda precoce de dentes decíduos, encontrada em 142 pacientes (21,7%). A terceira manifestação mais relatada foi a gengivite, encontrada em 72 pacientes (11,0%). Cabe ressaltar que nos artigos que relatavam sangramento gengival, este foi entendido como inerente da doença de gengivite e consolidados em uma mesma manifestação. O termo gengivite apareceu em 54 pacientes e o termo sangramento gengival em 18 pacientes. A quarta manifestação mais relatada foram as aftas, encontradas em 53 pacientes (8,1%). A Candidíase oral foi encontrada em 7,5% dos casos (n=49). Em seguida, a perda de osso alveolar e a perda dentária, encontradas em 4,4% (n=29) e a mobilidade dentária, encontrada em 28 pacientes (4,3%). O termo estomatite foi relatado em 24 pacientes (3,7%). Algumas manifestações estiveram presente entre 10 a



5 pacientes: O termo inespecífico envolvimento da saúde oral foi relato em 1,5% dos casos (n=10); a dentinogênese imperfecta em 1,1% dos casos (n=7); os abscessos em 0,9% dos casos (n=6); o termo inespecífico infecções orais de repetição em 0,8% (n=5). Algumas manifestações estiveram presentes em 1 a 3 pacientes: odontocondrodisplasia em 0,5% (n=3); a doença cárie em 0,5% (n=3), as infecções orais por herpes em 0,3% (n=2); a reabsorção óssea de mandíbula e maxila em 0,3% (n=2); o abscesso de glândula parótida em 0,2% (n=1); a paralisia do nervo facial em 0,2% (n=1), a retenção prolongada de dentes decíduos em 0,2% (n=1) e a retração gengiva 0,2% (n=1)

Outra análise realizada comparou as diferentes manifestações orais e dentárias com o tipo de célula primariamente afetado, baseando-se na classificação de IDP (Notarangelo, 2009) (**Anexo 1**).

**Figura 32**



**Figura 33**

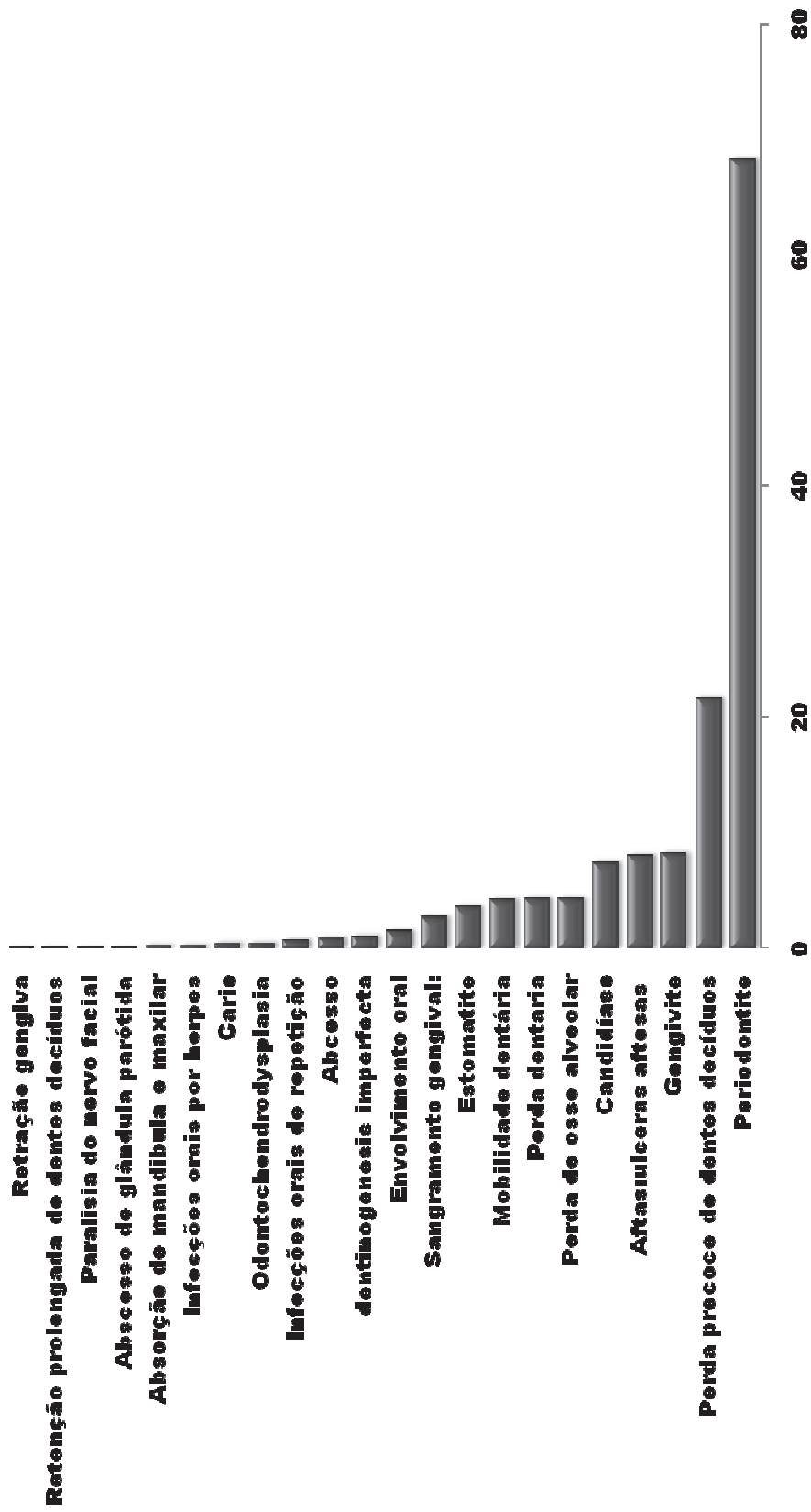
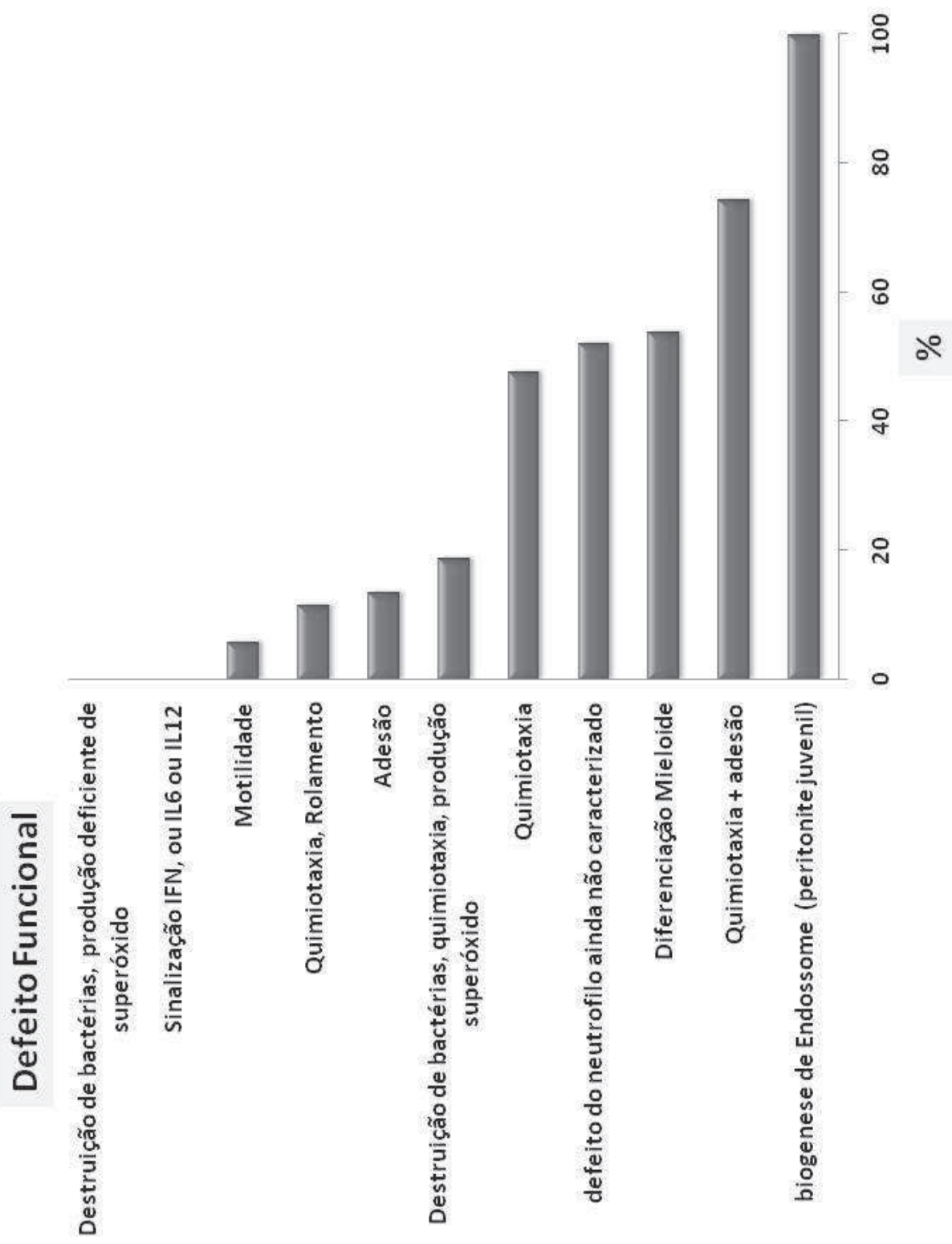
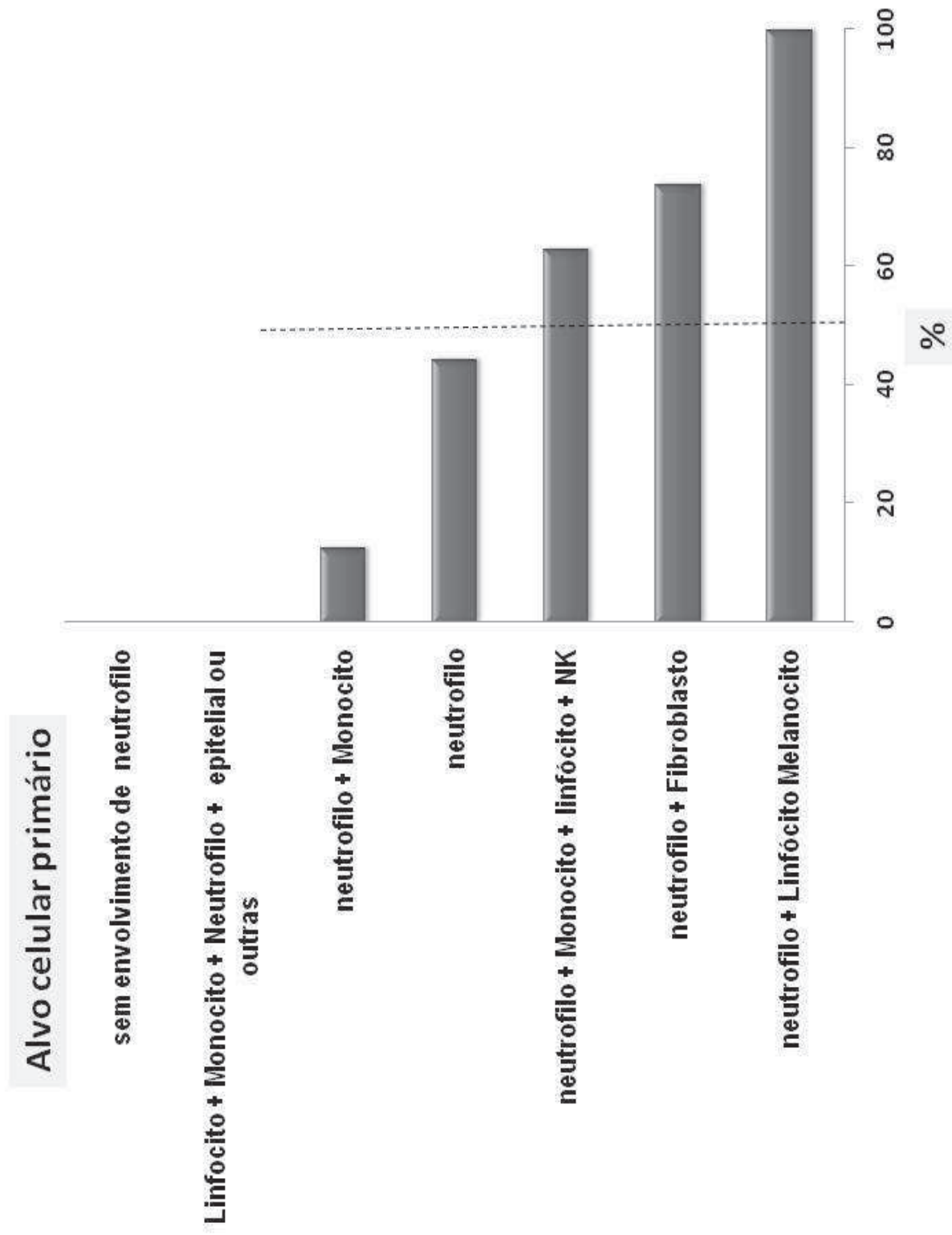


Figura 34



**Figura 35**



### 6.32) Validação da estratégia inicial de busca

Após a realização de todas as buscas, comparamos os artigos se os artigos recuperados na busca inicial sobre deficiência de células fagocitárias estavam relacionados nas demais buscas realizadas. Da busca inicial, dos 124 selecionados para a análise, excluímos 87 artigos que não se tratavam de deficiência de fagócitos e analisamos se os 37 artigos sobre deficiência de número e/ou função de fagócitos localizados na busca inicial estavam também nas demais buscas realizadas (**Figura 36**)

A **Figura 37** apresenta um levantamento dos artigos localizados na primeira busca de acordo com os assuntos relacionados. Nota-se que a grande maioria dos artigos trata-se de Deficiência Seletiva de IgA, que é a imunodeficiência mais prevalente.

Dentro das IDP relacionadas a defeitos em número e/ou função de fagócitos, alvo deste trabalho, ao compararmos os artigos localizados na primeira busca com os artigos das demais buscas realizadas, foi possível observar que 100% dos artigos sobre Síndrome de Hiper IgE e Deficiência de Adesão Leucocitária encontrados no primeiro estudo também haviam sido inclusos para análise nas respectivas buscas. Em relação aos 50% de sobreposição para os artigos localizados para a Doença Granulomatosa Crônica, isto provavelmente deve-se ao fato de que nas buscas conseguintes, utilizamos os descritores propostos pela Classificação de IDP (Notarangelo, 2009), separando esta doença em autossômica ou ligada ao X e, como esta diferenciação etiológica ocorreu posteriormente, alguns artigos mais antigos não foram selecionados nestas buscas.

A **Figura 38** mostra que dentre os artigos localizados na primeira busca que induziu o nosso estudo, as doenças da Tabela V da Classificação de IDP (Notarangelo, 2009) (**Anexo 1**), correspondem a segunda maior categoria de estudos de manifestações orais e dentárias, ficando atrás apenas na Deficiências de IgA. Isto corrobora para a nossa idéia inicial de que as desordens de número e/ou função de fagócitos cursam com manifestações orais e dentárias e que o nosso objetivo de estudar a frequência destas manifestações se deve a lacuna de estudos epidemiológicos.

FIGURA 36

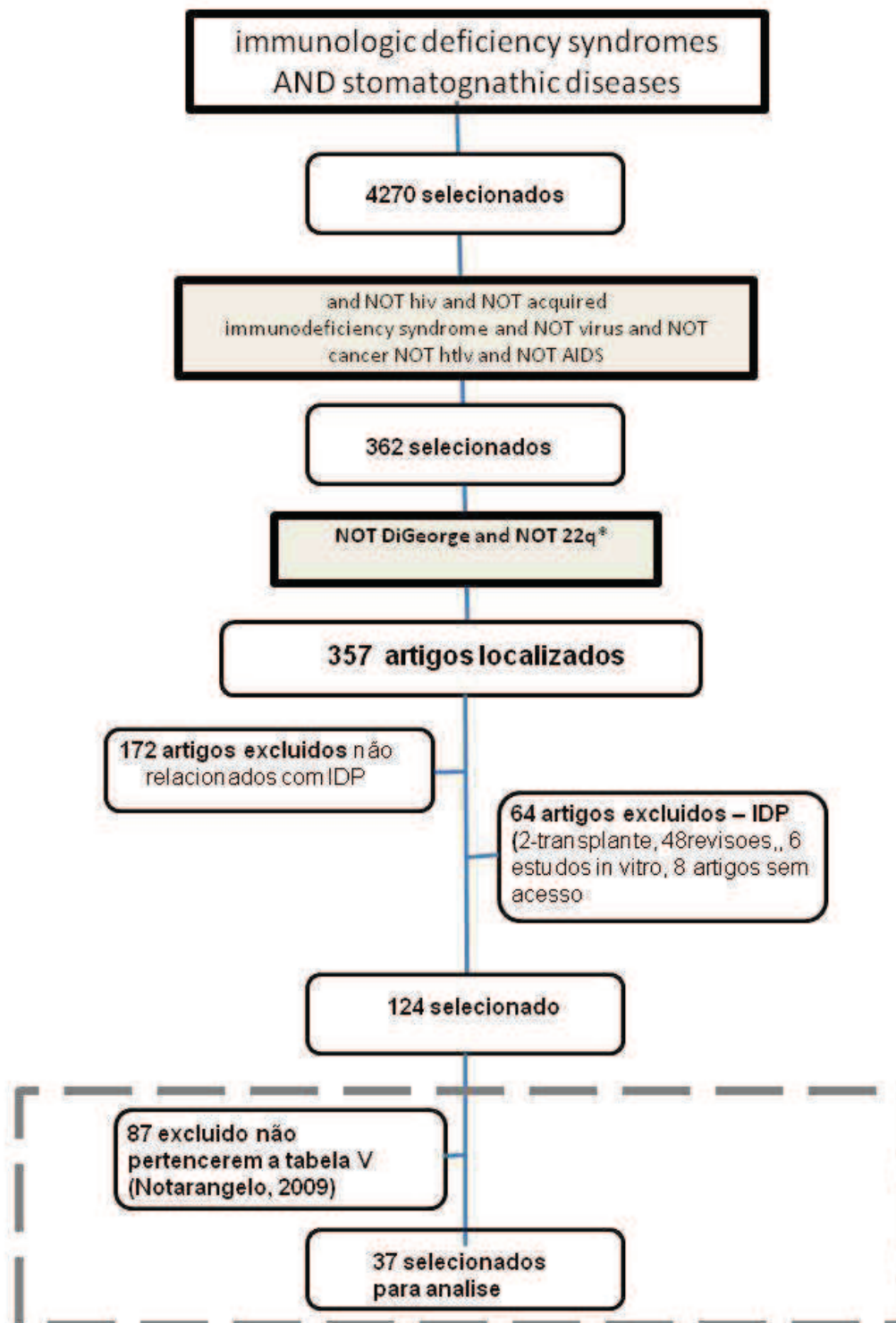




FIGURA 37

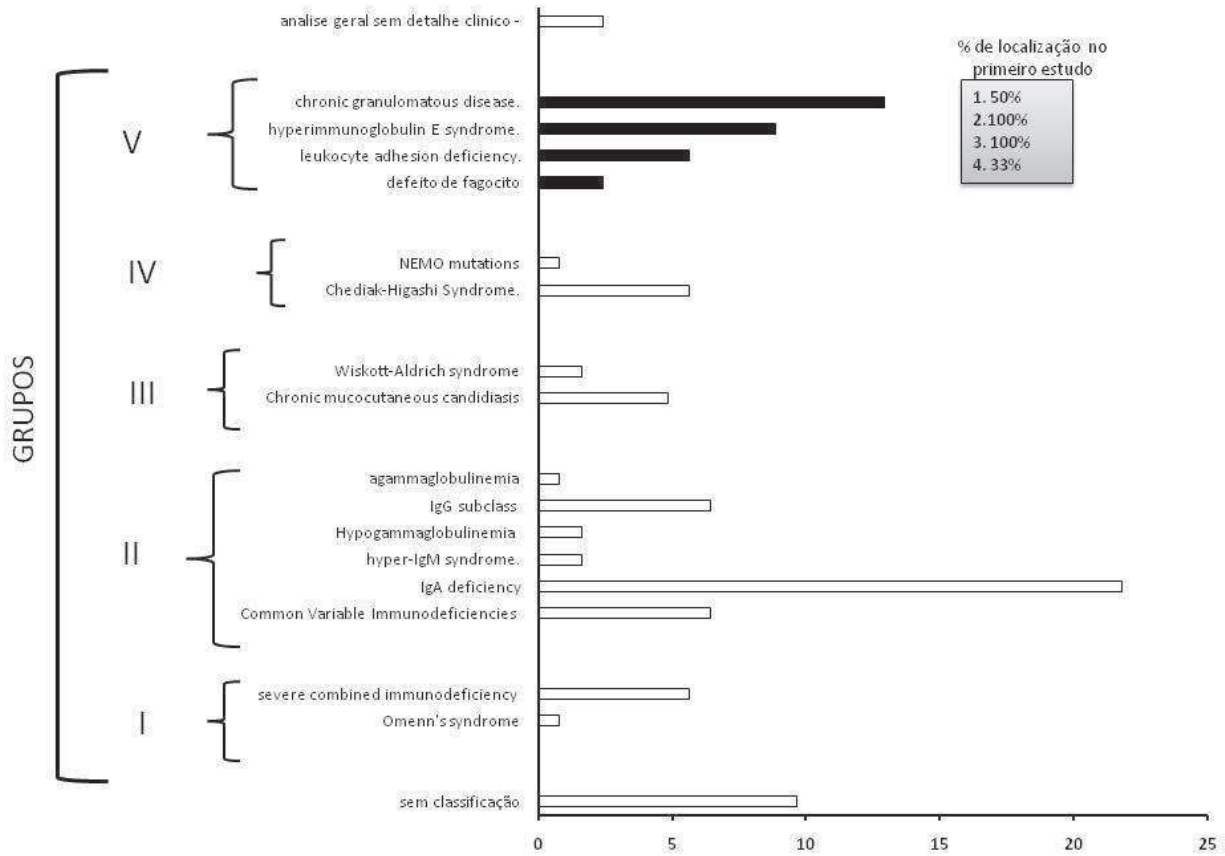
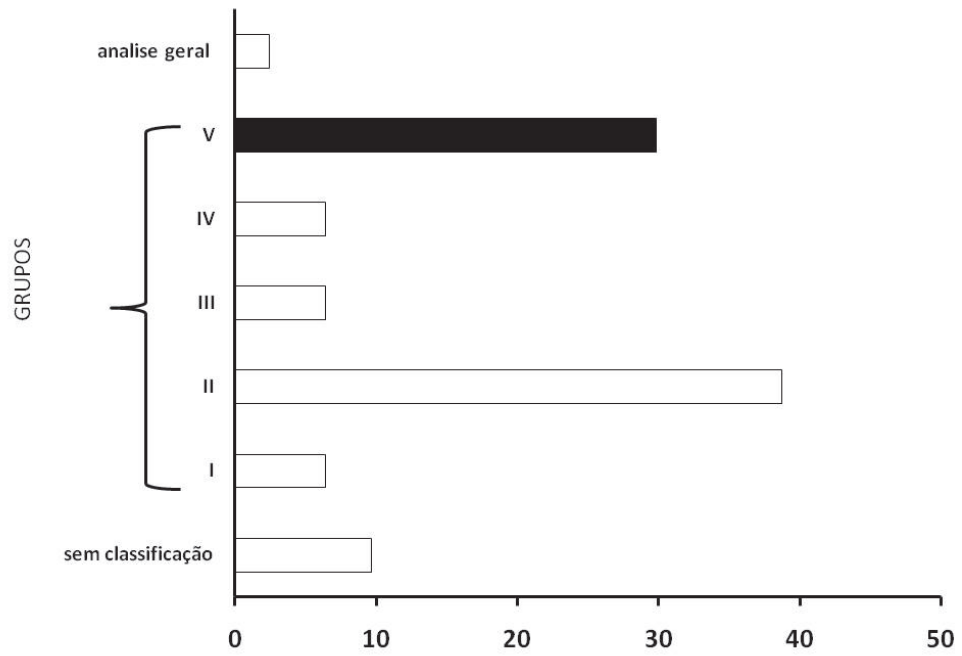


FIGURA 38



## 7) Discussão

A ausência de estudos epidemiológicos das manifestações orais e dentárias dos pacientes com IDP dificulta muito o entendimento acerca da realidade da frequência destes achados. Nosso estudo, na tentativa de definir a frequência das manifestações orais e dentárias nas IDPs com alterações de número e/ou função de células fagocitárias, desejava buscar uma resposta para este questionamento, além de impulsionar uma discussão sobre a necessidade de uma abordagem multidisciplinar e integral destes pacientes, que podem ser encontrados na prática odontológica.

Através da análise destes 632 artigos, pudemos perceber o quanto a cavidade oral é negligenciada durante o exame clínico dos pacientes, em estudos conduzidos fora do contexto da pesquisa odontológica. Uma vez que a grande maioria dos artigos é escrita pelas equipes médicas diretamente envolvidas nos casos, a falta de treinamento e até mesmo o esquecimento do exame da cavidade oral comprometeram diretamente os nossos resultados. Em algumas doenças, como na Síndrome de Papillon-Lefrèvre, por exemplo, na qual a doença periodontal faz parte da tríade diagnóstica, observamos que em 8% dos pacientes analisados não houve relato de doença periodontal.

Esta carência é tanto mais grave quanto, entre os muitos sítios que mais frequentemente podem ser afetados pelas IDPs, a cavidade oral, como a pele, são especialmente ricos em informações, além de serem acessíveis ao profissional treinado, sem risco nem desconforto para o paciente, através de métodos não-invasivos.

Já que as manifestações orais foram encontradas em 37,9% dos pacientes analisados, entendemos que, o cirurgião-dentista, sobretudo o

periodontista e o estomatologista, deve ser visto como um elemento importante na abordagem do exame da cavidade oral, pois o diagnóstico precoce de uma infecção intra-oral ou até mesmo de uma anomalia dentária, pode auxiliar no diagnóstico e no tratamento, com o intuito de prevenir ou minimizar os agravos.

Além disso, de acordo com os resultados encontrados neste presente estudo, de acordo com a frequência de doença periodontal relatada, fica claro que a doença periodontal pode ser entendida como um sinal de alerta de IDP por deficiência de células fagocitárias.

A gravidade de alguns casos clínicos analisados pode ter interferido nos resultados encontrados, visto que como algumas doenças cursam com óbito ainda uma idade bastante precoce, a abordagem das infecções de cavidade oral destas crianças acaba sendo pouco valorizada dada a gravidade do quadro clínico das demais infecções sistêmicas.

Além disso, muitos dos relatos de casos avaliados na busca realizada foram descritos antes mesmo do início da dentição decídua, impossibilitando, portanto, o envolvimento da saúde do tecido periodontal, geralmente associado às doenças de fagócitos.

Outro aspecto a ressaltar é a frequência das diferentes manifestações orais e dentárias encontrados na nossa análise. Alguns dados são considerados sintomas ou evolução do quadro de uma doença e foram agrupados separadamente, para evitar a supervalorização de uma determinada manifestação em detrimento de outra. Por exemplo, a perda precoce de dentes decíduos, a perda de osso alveolar, a mobilidade dentária são evoluções clínicas esperadas da doença periodontal e estes pacientes com estas manifestações, provavelmente apresentavam um quadro de periodontite.

Outras manifestações como envolvimento da saúde oral e estomatite, considerados nos resultados por aparecerem relatados com esta terminologia nos artigos, não trouxeram nenhuma conclusão útil, já que se tratam de termos abrangentes e inespecíficos. A estomatite, por exemplo, pode ser por espécies de *Candida*, por herpes ou simplesmente um quadro de estomatite aftosa recorrente. Cabe lembrar ainda que nos artigos onde estivesse relatada estomatite aftosa recorrente, a mesma foi agrupada junto com as aftas.

Nossos resultados foram, em geral, condizentes com os descritos na literatura até o presente momento (Szcawinska-Poplonik *et al*, 2009; Aktinson *et al* 2000).

De acordo com Szcawinska-Poplonik e colaboradores (2009), as manifestações orais e dentárias comumente descritas na Síndrome de Kostmann incluem a gengivite, a periodontite e a perda de osso alveolar. Nossos resultados também destacam a doença periodontal e a gengivite, porém encontramos um número significativo de pacientes com úlceras aftosas (61%). Já nas neutropenias cíclicas, as úlceras orais encontradas em 41% dos pacientes também são achados característicos em outros estudos (Szcawinska-Poplonik *et al*, 2009; Aktinson *et al*, 2000)

A doença periodontal e a gengivite foram relatadas em quantidade expressiva nas deficiências de adesão leucocitária (LAD-1, LAD-2 e LAD-3), nas neutropenias congênita e cíclica e na Síndrome de Papillon-Lefrève, corroborando, portanto, com as descrições de Szcawinska-Poplonik e colaboradores (2009) e de Aktinson e colaboradores (2000).

A presença de candidíase oral nos pacientes com Síndrome de Hiper IgE relatada por Szcawinska-Poplonik e colaboradores (2009) também foi

encontrada em 27,4% dos casos de Síndrome de Hiper IgE autossômica dominante. Além da candidíase, a retenção prolongada de dentes decíduos, característica marcante da síndrome e presente no *score* para Hiper IgE proposta por Freeman e colaboradores (2008), também foi um dado bastante expressivo na população estudada, correspondendo a 67,9% dos casos analisados.

As úlceras orais, destacadas por Szczawinska-Poplonik e colaboradores (2009) e por Aktinson e colaboradores (2000) como manifestações comumente encontradas na DGC e nas neutropenias. No nosso estudo, as úlceras orais, além de freqüentes nas neutropenias e na DGC ligada ao X também foram relatadas nas deficiências de adesão leucocitária do tipo 1.

Nosso trabalho veio, acima de tudo, tornar mais claro que alterações orais e dentárias não são igualmente freqüentes nas diferentes formas de IDP, nem mesmo quando se toma uma categoria específica de IDP, como o grupo V da classificação mais recente. O exame da cavidade oral será especialmente útil no caso de alguns pacientes, portadores das patologias específicas listadas acima. Nas demais, seja pela sua raridade, seja pela raridade das alterações acessíveis ao odontólogo, a sua busca terá provavelmente pouca utilidade.

Uma conseqüência mais geral do trabalho de revisão sistemática realizado por nós é que a evolução rápida dos estudos moleculares afetou de muitas maneiras a descrição dos pacientes com IDP. Na literatura mais recente, a ênfase é na caracterização de mutações específicas, muito mais do que na caracterização de sinais e sintomas clínicos. Com isso, muitas referências simplesmente escapam à detecção, já que os termos de busca

eficazes são os que identificam o gene mutado, e não os que identificam a doença definida em termos clínicos, anatomo-clínicos ou epidemiológicos.

Tomamos o cuidado de confirmar, sistematicamente, que o procedimento de busca mais específico adotado por nós, com base na pesquisa de literatura sobre mutações, recuperava também a literatura que tinha sido localizada através da abordagem convencional, com termos de busca abrangentes. Embora seja este o caso, o número de publicações que foram recuperadas na busca específica e que escaparam da busca abrangente pode ser a grande maioria das referências compiladas na nossa análise final. Isto deve servir de alerta para os que empreenderem estudos semelhantes, já que reflete as limitações dos sistemas eletrônicos de busca, assim como a rápida evolução da pesquisa biomédica.

A rápida evolução da medicina, resultante de estudos moleculares, também nos impede de utilizar com a mesma eficiência informação publicada em décadas anteriores a 1980. Isto se explica porque muitas das IDPs hoje reconhecidas foram descritas de 1980 para cá, mas também porque na fase inicial a caracterização de cada IDP era predominantemente clínica, e, não havendo identificação de mutações ou de defeitos moleculares bem-caracterizados, as referências correspondentes simplesmente escapam à detecção, sempre que a busca for feita em termos de mutações específicas. Isto não seria problema se todo trabalho atual com métodos moleculares incluísse no título ou resumo os nomes já reconhecidos das doenças, o que permitiria recuperá-los desta forma. Isto, no entanto, nem sempre ocorre, nem evita os problemas resultantes de mudanças inevitáveis nos nomes das

doenças, através dos avanços do conhecimento que são consolidados em classificações revistas periodicamente.

Com estas ressalvas em mente, consideramos que o presente estudo representa um primeiro esforço de disponibilizar para o profissional de Saúde no Brasil, e especialmente para aquele que se envolve no atendimento a pacientes pediátricos, seja em Odontologia, seja em diferentes especialidades da Medicina Clínica, um retrato quantitativo e preciso da literatura científica existente sobre alterações da cavidade oral em IDPs com deficiências de fagócitos.



## Referências Bibliográficas

- Bessa, C.F.N.; Santos, P.J.B.; Aguiar, M.C.F.; Carmo, M.A.V. Prevalence of oral mucosal alterations in children from 0 to 12 years old. *J Oral Pathol Med*, 2004, 33: 17-22
- Bonilla FA, Bernstein L, Khan DA, Ballas ZK, Chinen J, Frank MM, et al. Practice Parameter for the diagnosis and management of primary immunodeficiency. *Ann Allergy Asthma Immunol* 2005; 94: S1-S61.
- Bonilla FA, Geha RS. Immunologic Disorders. Primary immunodeficiency diseases. *J Allergy Clin Immunol* 2003; 111: S571-81.
- Boztug, Kaan et al. A novel syndrome with congenital neutropenia caused by mutations in *G6PC3*. *N Engl J Med*. 2009 January 1; 360(1): 32–43.
- Bohn G, Hardtke-Wolenski M, Zeidler C, Maecker B, Sauer M, MD, Sykora KW et al. Lethal Graft-Versus-Host Disease in Congenital Neutropenia Caused by p14 Deficiency After Allogeneic Bone Marrow Transplantation From an HLA-Identical Sibling. *Pediatr Blood Cancer* 2008;51:436–438.
- Bohn G, Welte K, Klein C. Severe congenital neutropenia: new genes explain an old disease. *Current Opinion in Rheumatology* 2007, 19:644–650
- Buckley, R.H. Primary immunodeficiency or not? Making the correct diagnosis. *J Allergy Clin Immunol* 2006; 117: 756-758.
- BRAGID. 10 Sinais de Alerta para Imunodeficiência Primária na Criança adaptados para o nosso meio (<http://www.imunopediatria.org>)
- Carlsson G, Melin M, Dahl N, Ramme KG, Nordeskjo M, Palmblad J et al. Kostmann syndrome or infantile genetic agranulocytosis, part two: understanding the underlying genetic defects in severe congenital neutropenia. *Acta Pædiatrica* 2007 96, p. 813–819
- Chinen, J; Puck, JM. Successes and risks of gene therapy in primary immunodeficiencies. *J Allergy Clin Immunol* 2004;113:595-603.
- Choua J, Juna H, Mansfielsa B. Neutropenia in type Ib glycogen storage disease. *Current Opinion in Hematology* 2010,17:36–42

- Crespo, Maria del Rosario Riobbo; Pozo, Paloma Planells del; Garcia, Rafael Rioboo. Epidemiología de la patología de la mucosa oral más frecuentes en niños. *Oral medicine and pathology* 2005; 10: 376-87.
- Doffinger R, Patel S, Kumararatne DS. Human immunodeficiencies that predispose to intracellular bacterial infections. *Curr Opin Rheumatol* 17:440—446. 2005
- Elder, M.E. T-cell immunodeficiencies. *Pediatr Clin North Am* 2000; 47: 1253-1274.
- Fleisher, TA. Evaluation of suspected immunodeficiency. *Adv Exp Med Biol*, 2007; 601-291-300
- Freeman A, Holland S. The Hyper-IgE Syndromes. *Immunol Allergy Clin N Am* 2008; 28: 277-291.
- Gombart AF, Koeffler P. Neutrophil specific granule deficiency and mutations in the gene encoding transcription factor C/EBP. *Current Opinion in Hematology* 2002, 9:36–42
- Grimbacher B, Holland S, Gallin J, Greenberg F, Hill S. Hiper IgE Syndrome with recurrent infections – an autosomal dominant multisystem disorder. *N Engl J Med*, 1999, p. 692-702.
- Gu Y, Williams DA. RAC2 GTPase deficiency and myeloid cell dysfunction in human and mouse. *J Pediatr Hematol Oncol*. 2002; 24(9):791-4.
- Heimall J, Freeman A, Holland SM. Pathogenesis of Hyper IgE Syndrome. *Clinic Rev Allerg Immunol* (2010) 38:32–38
- Holland S. Chronic Granulomatous Disease. *Clinic Rev Allerg Immunol*, 2010, 38: p. 3-10.
- Janeway CA, Travers P, Walport M, Shlomchik. *Immunobiology: The Immune System in Health & Disease*. Garland Science Publishing, 2005. p: 470-489
- Jeffrey Modell Foundation. 10 Warning Signs of Primary Immunodeficiency. <http://www.jmfworld.org>. sd.
- Gazit Y, Mory A, Etzioni A, Frydman M, Scheuermam O, Gershoni-Baruchi R et al. Leukocyte Adhesion Deficiency Type II: Long term follow-up and Review of literature. *J Clin Immunol* 2010, 30, p. 308-313
- Geha R, Notarangelo L, Casanova J, Chapel H, Conley ME, Fischer A *et al*. Primary immunodeficiency diseases: An update from the

International Union of Immunological Societies Primary Immunodeficiency Diseases Classification Committee. *J Allergy Clin Immunol* 2007; 120: 776-94.

- Klein, Christoph. Congenital Neutropenia. *American Society of Hematology*. 2009 (p. 344-350)
- Lindegren M, Kobrynski L, Rasmussen S, Moore C, Grosse S, Vanderford M et al. Applying Public Health Strategies to Primary Immunodeficiency Diseases. A potential approach to Genetic Disorders. *MMWR Recommendations and Reports* 2004/53; p.1-29.
- Lindhe, J; Karring, T; Lang NP. *Tratado de Periodontia Clínica e Implantodontia Oral*. Guanabara Koogan, 4<sup>a</sup> ed, 2005
- Minegishi Y, Karasuyama H. Genetic Origins of Hyper-IgE Syndrome. *Current Allergy and Asthma Reports* 2008, 8: 386– 391
- Muller, S.M. & Friedrich, W. Stem cell transplantation for treatment of primary immunodeficiency disorders. *Iran J Allergy Asthma Immunol* 2005; 4:1-8.
- Notarangelo L, Bodalato R. Leukocyte Trafficking in primary immunodeficiencies. *J Leukoc Biol*, 2009, 85, 335-343
- Notarangelo L, Fisher A, Geha F, Casanova JL, Chapel H, Conley ME. Primary Immunodeficiencies: 2009 update. *J Allergy Clin Immunol* 2009; 124, p.1161-78
- Notarangelo L. Primary Immunodeficiencies. *J Allergy Clin Immunol* 2010, 125, 182-194
- Padeh S, Berkun Y. Auto-inflammatory Fever Syndromes. *Rheum Dis Clin N AM* 2007; 33:585-623.
- Parmanand J. Dhanrajani. Papillon-Lefevre syndrome: clinical presentation and a brief. Review. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2009;108:e1-e7
- Passanezi, E. Interdisciplinary treatment of localized juvenile periodontitis: A new perspective to an old problem. *Am J Orthod Dentofacial Orthop* 2007;131:268-76.
- Picard C, Casanova JL. Inherited disorders of cytokines. *Current Opinion in Pediatrics* 2004, 16:648–658
- Qasim, W., et al. Allogeneic hematopoietic stem-cell transplantation for leukocyte adhesion deficiency. *Pediatrics* 2009; 123: 836-840.

- Rezaei N, Farhoudi A, Pourpak Z, Aghamohammadi A, Ramyar A, Moin M et al. Clinical and Laboratory Findings in Iranian Children with Cyclic Neutropenia. *Iranian Journal of Allergy, Asthma and Immunology*. Vol. 3 (1), 2004.
- Rezaei N, Aghamohammadi A, Notarangelo L, editors. *Primary Immunodeficiency Diseases: Definition, Diagnosis and Management*, Springer, 2008, p. 131-159
- Roos D, Boer M, Kuribayashi F et al. Mutations in the X-linked and autosomal recessive forms of chronic granulomatous disease. *The Journal of the American Society of Hematology*. March, 1996. 1996 Vol. 87: 1663-1681
- Roos D, Boer M, Kuribayashi F et al. Mutations in the X-linked and autosomal recessive forms of chronic granulomatous disease. *The Journal of the American Society of Hematology*. March, 1996. 1996 Vol. 87: 1663-1681
- Schenkein, HA. Host responses in maintaining periodontal health and determining periodontal disease. *Periodontology 2000*, Vol. 40, 2006, 77–93
- Stiehm ER, Ochs HD, Wilkenstein JA. *Immunologic Disorders in Infants & Children 5a ed*. Philadelphia, W.B. Saunders, 2004.
- Stojanov, S; Kastner, DL. Familial autoinflammatory diseases: genetics, pathogenesis and treatment. *Curr Opin Rheumatol* 2005;17:586-99.
- Teis D, Wunderlich W, Huber LA. Localization of the MP1-MAPK scaffold complex to endosomes is mediated by p14 and required for signal transduction. *Dev Cell* 2002;3:803–814.
- Watford WT, Hissong BD; Bream J, Kanno Y, Muul L, O’Shea JJ. Signaling by IL-12 and IL-23 and the immunoregulatory roles of STAT4. *Immunological Reviews* 2004. Vol. 202: 139–156
- <http://www.shwachman.org/> acessado em 14 janeiro 2011

# **ANEXOS**



TABLE V. Congenital defects of phagocyte number, function, or both

Disease	Affected cells	Affected function	Associated features	Inheritance	Gene defect—pre-sumed pathogenesis	Relative frequency among PIDs
1-2. Severe congenital neutropenias	N	Myeloid differentiation	Subgroup with myelodysplasia	AD	<i>ELA2</i> : misrouting of elastase	Rare
3. Kostmann disease	N	Myeloid differentiation	Cognitive and structural heart defects	AR	<i>HAXI</i> : control of apoptosis	Rare
4. Neutropenia with cardiac and congenital malformations	N + F	Myeloid differentiation	Structural heart defects, congenital malformations, and venous angiectasias of trunks and limbs	AR	<i>G6PC3</i> : abolished enzymatic activity of glucose-6-phosphate and enhanced apoptosis of N and F	Very rare
5. Glycogen storage disease type Ib	N + M	Killing, chemotaxis, O <sub>2</sub> production	Fasting hypoglycemia, lactic acidosis, hepatomegaly, neutropenia	AR	<i>G6PT1</i> : Glucose-6-phosphate transporter 1	Very rare
6. Cyclic neutropenia	N	?	Oscillations of other leukocytes and platelets	AD	<i>ELA2</i> : misrouting of elastase	Very rare
7. X-linked neutropenia/myelodysplasia	N + M	?	Monocytopenia	XL	<i>WAS</i> : Regulator of actin cytoskeleton (loss of autoinhibition)	Extremely rare
8. Pi4 deficiency	N+L, M+L	Endosome biogenesis	Neutropenia, Hypogammaglobulinemia, ICD8 cytotoxicity	AR	<i>MAP3BP</i> : Endosomal adaptor protein 14	Extremely rare
9. Leukocyte adhesion deficiency type 1	N + M + L + NK	Adherence, Chemotaxis, Endocytosis	Delayed cord separation, skin ulcers, Peritonitis	AR	<i>ITGB2</i> : Adhesion protein	Very rare
10. Leukocyte adhesion deficiency type 2	N + M	Rolling	Mild LAD type 1 features plus hb-blood group plus mental and growth retardation	AR	<i>FU/CT1</i> : GDP-Fucose transporter	Extremely rare
11. Leukocyte adhesion deficiency type 3	N + M + L + NK	Adherence	LAD type 1 plus bleeding tendency	AR	<i>KINDLIN3</i> : Rap1-activation of $\beta$ 1-3-integrins	Extremely rare
12. Rac 2 deficiency	N	Adherence	Poor wound healing, leukocytosis	AD	<i>RAC2</i> : Regulation of actin cytoskeleton	Extremely rare
13. $\beta$ -Actin deficiency	N + M	Motility	Mental retardation, short stature	AD	<i>ACTB</i> : Cytoplasmic actin	Extremely rare
14. Localized juvenile periodontitis	N	Formylpeptide-induced chemotaxis	Periodontitis only	AR	<i>FPRI</i> : Chemokine receptor	Very rare
15. Papillon-Lefevre syndrome	N + M	Chemotaxis	Periodontitis, palmoplantar hyperkeratosis	AR	<i>CTSC</i> : Cathepsin C activation of serine proteases	Very rare
16. Specific granule deficiency	N	Chemotaxis	N with banded nuclei	AR	<i>CEBPE</i> : myeloid transcription factor	Extremely rare
17. Shwachman-Diamond syndrome	N	Chemotaxis	Pancytopenia, exocrine pancreatic insufficiency, chondrodysplasia	AR	<i>SBD5</i> transcription factor	Rare
18. X-linked chronic granulomatous disease (CGD)	N + M	Killing (fauly O <sub>2</sub> production)	McLeod phenotype in a subgroup of patients	XL	<i>CYBB</i> : Electron transport protein (gp91phox)	Relatively common

(Continued)





# APÊNDICES



# PubMed

Search: ela2 and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (17)

Display Settings: Summary, 20 per page, Sorted by Recently Added

[Manage Filters](#)**Are you looking for gene information?**

Source: Gene Database

[See 159 articles](#) about **ela2** gene function**ela2** elastase 2 [Danio rerio]ela2 in [Danio rerio](#) | [Homo sapiens](#) | [Mus musculus](#) | [All 17 Gene records](#)**Results: 17**

- [\[Molecular analysis of two cases of severe congenital neutropenia\].](#)  
Park J, Kim M, Lim J, Kim Y, Cho B, Park YJ, Han K.  
Korean J Lab Med. 2010 Apr;30(2):111-6. Korean.  
PMID: 20445326 [PubMed - indexed for MEDLINE] **Free Article**
- [Double de novo mutations of ELANE \(ELA2\) in a patient with severe congenital neutropenia requiring high-dose G-CSF therapy.](#)  
Lundén L, Boxhammer S, Carlsson G, Ellström KG, Nordenskjöld M, Lagerstedt-Robinson K, Fadeel B.  
Br J Haematol. 2009 Nov;147(4):587-90. Epub 2009 Aug 19. No abstract available.  
PMID: 19694719 [PubMed - indexed for MEDLINE]
- [Severe congenital neutropenia: a negative synergistic effect of multiple mutations of ELANE \(ELA2\) gene.](#)  
Lanciotti M, Caridi G, Rosano C, Pigullo S, Lanza T, Dufour C.  
Br J Haematol. 2009 Sep;146(5):578-80. Epub 2009 Jul 6. No abstract available.  
PMID: 19594744 [PubMed - indexed for MEDLINE]
- [Imatinib-induced tumor lysis syndrome: report of a case and review of the literature.](#)  
Chang H, Shih LY.  
Chang Gung Med J. 2008 Sep-Oct;31(5):510-4. Review.  
PMID: 19097599 [PubMed - indexed for MEDLINE] **Free Article**
- [A novel mutation Ala57Val of the ELA2 gene in a Korean boy with severe congenital neutropenia.](#)  
Lee ST, Yoon HS, Kim HJ, Lee JH, Park JH, Kim SH, Seo JJ, Im HJ.  
Ann Hematol. 2009 Jun;88(6):593-5. Epub 2008 Oct 23. No abstract available.  
PMID: 18946670 [PubMed - indexed for MEDLINE]
- [Severe congenital neutropenia or hyper-IgM syndrome? A novel mutation of CD40 ligand in a patient with severe neutropenia.](#)  
Rezaei N, Aghamohammadi A, Ramyar A, Pan-Hammarstrom Q, Hammarstrom L.  
Int Arch Allergy Immunol. 2008;147(3):255-9. Epub 2008 Jul 2.  
PMID: 18594157 [PubMed - indexed for MEDLINE]
- [Central nervous system involvement in severe congenital neutropenia: neurological and neuropsychological abnormalities associated with specific HAX1 mutations.](#)  
Carlsson G, van't Hooft I, Melin M, Entesarian M, Laurencikas E, Nennesmo I, Trebińska A, Grzybowska E, Palmblad J, Dahl N, Nordenskjöld M, Fadeel B, Henter JI.  
J Intern Med. 2008 Oct;264(4):388-400. Epub 2008 May 29.  
PMID: 18513342 [PubMed - indexed for MEDLINE]
- [Double de novo mutations of ELA2 in cyclic and severe congenital neutropenia.](#)  
Salipante SJ, Benson KF, Luty J, Hadavi V, Kariminejad R, Kariminejad MH, Rezaei N, Horwitz MS.  
Hum Mutat. 2007 Sep;28(9):874-81.  
PMID: 17436313 [PubMed - indexed for MEDLINE]
- [Mosaic tetraploidy and transient GF11 mutation in a patient with severe chronic neutropenia.](#)  
Hochberg JC, Miron PM, Hay BN, Woda BA, Wang SA, Richert-Przygonska M, Aprikyan AA, Newburger PE.  
Pediatr Blood Cancer. 2008 Mar;50(3):630-2.  
PMID: 17096407 [PubMed - indexed for MEDLINE]
- [A family of severe congenital neutropenia with -199C to A substitution in ELA2 promoter.](#)  
Matsushita H, Asai S, Komiya S, Inoue H, Yabe H, Miyachi H.  
Am J Hematol. 2006 Dec;81(12):985-6. No abstract available.  
PMID: 16795059 [PubMed - indexed for MEDLINE]
- [Strong evidence for autosomal dominant inheritance of severe congenital neutropenia associated with ELA2 mutations.](#)  
Boxer LA, Stein S, Buckley D, Bolyard AA, Dale DC.  
J Pediatr. 2006 May;148(5):633-6.  
PMID: 16737875 [PubMed - indexed for MEDLINE]

[Congenital dysgranulopoietic neutropenia.](#)

Olcay L, Yetgin S, Erdemli E, Germeshausen M, Aktaş D, Büyükaşık Y, Okur H.

Pediatr Blood Cancer. 2008 Jan;50(1):115-9.

PMID: 16652351 [PubMed - indexed for MEDLINE]

13. [Acute lymphoblastic leukemia in a patient with congenital neutropenia without G-CSF-R and ELA2 mutations.](#)  
Yetgin S, Germeshausen M, Touw I, Koç A, Olcay L.  
Leukemia. 2005 Sep;19(9):1710-1. No abstract available.  
PMID: 15973448 [PubMed - indexed for MEDLINE]
14. [Chronic myeloid leukemia in an adolescent with Ollier's disease after intensive X-ray exposure.](#)  
Au WY, Ooi GC, Ma SK, Wan TS, Kwong YL.  
Leuk Lymphoma. 2004 Mar;45(3):613-6.  
PMID: 15160927 [PubMed - indexed for MEDLINE]
15. [\[Cyclic neutropenia. Detection of a mutation in the gene for neutrophil elastase \(ELA2\)\].](#)  
Schiller M, Böhm M, Zeidler C, Germeshausen M, Welte K, Luger TA, Bonsmann G.  
Hautarzt. 2001 Sep;52(9):790-6. German.  
PMID: 11572070 [PubMed - indexed for MEDLINE]
16. [Chronic myeloid leukemia with expression of ALL-type BCR/ABL transcript: a case-report and review of the literature.](#)  
Solves P, Bolufer P, López JA, Barragán E, Bellod L, Ferrer S, Rosell A, Lerma E, Cervera J, de la Rubia J, Sanz GF, Sanz Alonso MA.  
Leuk Res. 1999 Sep;23(9):851-4. Review.  
PMID: 10475625 [PubMed - indexed for MEDLINE]
17. [Molecular remission in Philadelphia-positive adult acute lymphoblastic leukaemia rapidly induced by conventional-dose chemotherapy.](#)  
Irving JA, Finney R, Lennard A, Proctor SJ.  
Bone Marrow Transplant. 1998 Feb;21(3):323-5.  
PMID: 9489662 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: GFI1 and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (2)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

**Are you looking for gene information?**

Source: Gene Database

[See 65 articles](#) about **GFI1** gene function**GFI1** growth factor independent 1 transcription repressor [Homo sapiens]gfi1 in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 11 Gene records](#)**Results: 2**

1. [Cyclic neutropenia associated with T cell immunity to granulocyte proteases and a double de novo mutation in GFI1, a transcriptional regulator of ELANE.](#)  
Armistead PM, Wieder E, Akande O, Alatrash G, Quintanilla K, Liang S, Molldrem J.  
Br J Haematol. 2010 Sep;150(6):716-9. doi: 10.1111/j.1365-2141.2010.08274.x. No abstract available.  
PMID: 20560965 [PubMed - indexed for MEDLINE]
2. [Mosaic tetraploidy and transient GFI1 mutation in a patient with severe chronic neutropenia.](#)  
Hochberg JC, Miron PM, Hay BN, Woda BA, Wang SA, Richert-Przygonska M, Aprikyan AA, Newburger PE.  
Pediatr Blood Cancer. 2008 Mar;50(3):630-2.  
PMID: 17096407 [PubMed - indexed for MEDLINE]

## Results: 44

- [Expression of the transcriptional repressor Gfi-1 is regulated by C/EBP{alpha} and is involved in its proliferation and colony formation-inhibitory effects in p210BCR/ABL-expressing cells.](#)
  1. Lidonnic MR, Audia A, Soliera AR, Prisco M, Ferrari-Amorotti G, Waldron T, Donato N, Zhang Y, Martinez RV, Holyoake TL, Calabretta B. *Cancer Res.* 2010 Oct 15;70(20):7949-59. Epub 2010 Oct 5.  
PMID: 20924107 [PubMed - indexed for MEDLINE]
  
- [Gfi1 and Gfi1b: key regulators of hematopoiesis.](#)
  2. van der Meer LT, Jansen JH, van der Reijden BA. *Leukemia.* 2010 Nov;24(11):1834-43. Epub 2010 Sep 23. Review.  
PMID: 20861919 [PubMed - indexed for MEDLINE]
  
- [Severe congenital neutropenia in a multigenerational family with a novel neutrophil elastase \(ELANE\) mutation.](#)
  3. van de Vosse E, Verhard EM, Tool AJ, de Visser AW, Kuijpers TW, Hiemstra PS, van Dissel JT. *Ann Hematol.* 2011 Feb;90(2):151-8. Epub 2010 Aug 28.  
PMID: 20803142 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Gfi1-cells and circuits: unraveling transcriptional networks of development and disease.](#)
  4. Phelan JD, Shroyer NF, Cook T, Gebelein B, Grimes HL. *Curr Opin Hematol.* 2010 Jul;17(4):300-7. Review.  
PMID: 20571393 [PubMed - indexed for MEDLINE]
  
- [Cyclic neutropenia associated with T cell immunity to granulocyte proteases and a double de novo mutation in GFI1, a transcriptional regulator of ELANE.](#)
  5. Armistead PM, Wieder E, Akande O, Alatrash G, Quintanilla K, Liang S, Molldrem J. *Br J Haematol.* 2010 Sep;150(6):716-9. doi: 10.1111/j.1365-2141.2010.08274.x. No abstract available.  
PMID: 20560965 [PubMed - indexed for MEDLINE]
  
- [From hematopoietic progenitors to B cells: mechanisms of lineage restriction and commitment.](#)
  6. Ramírez J, Lukin K, Hagman J. *Curr Opin Immunol.* 2010 Apr;22(2):177-84. Epub 2010 Mar 6. Review.  
PMID: 20207529 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Tag-SNP analysis of the GFI1-EVI5-RPL5-FAM69 risk locus for multiple sclerosis.](#)
  7. Alcina A, Fernández O, Gonzalez JR, Catalá-Rabasa A, Fedetz M, Ndagire D, Leyva L, Guerrero M, Arnal C, Delgado C, Lucas M, Izquierdo G, Matesanz F. *Eur J Hum Genet.* 2010 Jul;18(7):827-31. Epub 2010 Jan 20.  
PMID: 20087403 [PubMed - indexed for MEDLINE]
  
- [Congenital neutropenia.](#)
  8. Klein C. *Hematology Am Soc Hematol Educ Program.* 2009:344-50. Review.  
PMID: 20008220 [PubMed - indexed for MEDLINE] **Free Article**
  
- [The growth factor independence-1 \(Gfi1\) is overexpressed in chronic myelogenous leukemia.](#)
  9. Huang M, Hu Z, Chang W, Ou D, Zhou J, Zhang Y. *Acta Haematol.* 2010;123(1):1-5. Epub 2009 Nov 2.  
PMID: 19887785 [PubMed - indexed for MEDLINE]
  
- [Novel genetic etiologies of severe congenital neutropenia.](#)
  10. Boztug K, Klein C. *Curr Opin Immunol.* 2009 Oct;21(5):472-80. Epub 2009 Sep 24. Review.  
PMID: 19782549 [PubMed - indexed for MEDLINE]
  
- [Prevalence of mutations in ELANE, GFI1, HAX1, SBDS, WAS and G6PC3 in patients with severe congenital neutropenia.](#)
  11. Xia J, Bolyard AA, Rodger E, Stein S, Aprikyan AA, Dale DC, Link DC. *Br J Haematol.* 2009 Nov;147(4):535-42. Epub 2009 Sep 22.  
PMID: 19775295 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Contributions to neutropenia from PFAAP5 \(N4BP2L2\), a novel protein mediating transcriptional repressor cooperation between Gfi1 and neutrophil elastase.](#)
  12. Salipante SJ, Rojas ME, Korkmaz B, Duan Z, Wechsler J, Benson KF, Person RE, Grimes HL, Horwitz MS.

Mol Cell Biol. 2009 Aug;29(16):4394-405. Epub 2009 Jun 8.

PMID: 19506020 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

■ [Genetic insights into congenital neutropenia.](#)

13. Klein C, Welte K.

Clin Rev Allergy Immunol. 2010 Feb;38(1):68-74. Review.

PMID: 19440858 [PubMed - indexed for MEDLINE]

■ [Growth factor independent 1b \(Gfi1b\) and a new splice variant of Gfi1b are highly expressed in patients with acute and chronic leukemia.](#)

14.

Vassen L, Khandanpour C, Ebeling P, van der Reijden BA, Jansen JH, Mahlmann S, Dühsen U, Möröy T.

Int J Hematol. 2009 May;89(4):422-30. Epub 2009 Apr 10.

PMID: 19360458 [PubMed - indexed for MEDLINE]

■ [A HaemAtlas: characterizing gene expression in differentiated human blood cells.](#)

15. Watkins NA, Gusnanto A, de Bono B, De S, Miranda-Saavedra D, Hardie DL, Angenent WG, Attwood AP, Ellis PD, Erber W, Foad NS, Garner SF, Isacke CM, Jolley J, Koch K, Macaulay IC, Morley SL, Rendon A, Rice KM, Taylor N, Thijssen-Timmer DC, Tijssen MR, van der Schoot CE, Wernisch L, Winzer T, Dudbridge F, Buckley CD, Langford CF, Teichmann S, Göttgens B, Ouwehand WH; Bloodomics Consortium.

Blood. 2009 May 7;113(19):e1-9. Epub 2009 Feb 19.

PMID: 19228925 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

■ [Gfi-1 represses CDKN2B encoding p15INK4B through interaction with Miz-1.](#)

16. Basu S, Liu Q, Qiu Y, Dong F.

Proc Natl Acad Sci U S A. 2009 Feb 3;106(5):1433-8. Epub 2009 Jan 22.

PMID: 19164764 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

■ [Loss of function genetic screens reveal MTGR1 as an intracellular repressor of beta1 integrin-dependent neurite outgrowth.](#)

17. Ossovskaya VS, Dolganov G, Basbaum AI.

J Neurosci Methods. 2009 Mar 15;177(2):322-33. Epub 2008 Nov 6.

PMID: 19026687 [PubMed - indexed for MEDLINE]

■ [Ajuba functions as a histone deacetylase-dependent co-repressor for autoregulation of the growth factor-independent-1 transcription factor.](#)

18. Montoya-Durango DE, Velu CS, Kazanjian A, Rojas ME, Jay CM, Longmore GD, Grimes HL.

J Biol Chem. 2008 Nov 14;283(46):32056-65. Epub 2008 Sep 19.

PMID: 18805794 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

■ [Novel approaches to treating sensorineural hearing loss. Auditory genetics and necessary factors for stem cell transplant.](#)

19. Vlastarakos PV, Nikolopoulos TP, Tavoulari E, Kiprouli C, Ferekidis E.

Med Sci Monit. 2008 Aug;14(8):RA114-25. Review.

PMID: 18668008 [PubMed - indexed for MEDLINE]

■ [Stem cells and molecular strategies to restore hearing.](#)

20. Pauley S, Kopecky B, Beisel K, Soukup G, Fritzschn B.

Panminerva Med. 2008 Mar;50(1):41-53. Review.

PMID: 18427387 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

■ [Adhesion to fibronectin induces megakaryocytic differentiation of JAS-REN cells.](#)

21. Yamada H, Sekikawa T, Agawa M, Iwase S, Suzuki H, Horiguchi-Yamada J.

Anticancer Res. 2008 Jan-Feb;28(1A):261-6.

PMID: 18383854 [PubMed - indexed for MEDLINE]

■ [CD34, RAB20, PU.1 and GFI1 mRNA expression in myelodysplastic syndrome.](#)

22. Huh HJ, Chae SL, Lee M, Hong KS, Mun YC, Seong CM, Chung WS, Huh JW.

Int J Lab Hematol. 2009 Jun;31(3):344-51. Epub 2008 Mar 25.

PMID: 18371060 [PubMed - indexed for MEDLINE]

■ [Gfi1 ubiquitination and proteasomal degradation is inhibited by the ubiquitin ligase Triad1.](#)

23. Martijn JA, van der Meer LT, van Ernst L, van Reijmersdal S, Wissink W, de Witte T, Jansen JH, Van der Reijden BA.

Blood. 2007 Nov 1;110(9):3128-35. Epub 2007 Jul 23.

PMID: 17646546 [PubMed - indexed for MEDLINE] [Free Article](#)

■ [Epigenetic regulation of protein-coding and microRNA genes by the Gfi1-interacting tumor suppressor PRDM5.](#)

24. Duan Z, Person RE, Lee HH, Huang S, Donadieu J, Badolato R, Grimes HL, Papayannopoulou T, Horwitz MS.

Mol Cell Biol. 2007 Oct;27(19):6889-902. Epub 2007 Jul 16.

PMID: 17636019 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

■ [Segregation of megakaryocytic or erythroid cells from a megakaryocytic leukemia cell line \(JAS-R\) by adhesion during culture.](#)

25. Yamada H, Sekikawa T, Iwase S, Arakawa Y, Suzuki H, Agawa M, Akiyama M, Takeda N, Horiguchi-Yamada J.

Leuk Res. 2007 Nov;31(11):1537-43. Epub 2007 Mar 26.

PMID: 17383723 [PubMed - indexed for MEDLINE]

- 26. [Cooperative interaction between ETS1 and GFI1 transcription factors in the repression of Bax gene expression.](#)  
Nakazawa Y, Suzuki M, Manabe N, Yamada T, Kihara-Negishi F, Sakurai T, Tenen DG, Iwama A, Mochizuki M, Oikawa T.  
Oncogene. 2007 May 24;26(24):3541-50. Epub 2007 Jan 8.  
PMID: 17213822 [PubMed - indexed for MEDLINE]
- 27. [Role of oncoprotein growth factor independent-1 \(GFI1\) in repression of 25-hydroxyvitamin D 1alpha-hydroxylase \(CYP27B1\): a comparative analysis in human prostate cancer and kidney cells.](#)  
Dwivedi PP, Anderson PH, Tilley WD, May BK, Morris HA.  
J Steroid Biochem Mol Biol. 2007 Mar;103(3-5):742-6. Epub 2007 Jan 5.  
PMID: 17207994 [PubMed - indexed for MEDLINE]
- 28. [Mosaic tetraploidy and transient GFI1 mutation in a patient with severe chronic neutropenia.](#)  
Hochberg JC, Miron PM, Hay BN, Woda BA, Wang SA, Richert-Przygonska M, Aprikyan AA, Newburger PE.  
Pediatr Blood Cancer. 2008 Mar;50(3):630-2.  
PMID: 17096407 [PubMed - indexed for MEDLINE]
- 29. [Hematopoietic stem cell self-renewal.](#)  
Akala OO, Clarke MF.  
Curr Opin Genet Dev. 2006 Oct;16(5):496-501. Epub 2006 Aug 17. Review.  
PMID: 16919448 [PubMed - indexed for MEDLINE]
- 30. [Gene expression patterns define novel roles for E47 in cell cycle progression, cytokine-mediated signaling, and T lineage development.](#)  
Schwartz R, Engel I, Fallahi-Sichani M, Petrie HT, Murre C.  
Proc Natl Acad Sci U S A. 2006 Jun 27;103(26):9976-81. Epub 2006 Jun 16.  
PMID: 16782810 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 31. [Neutrophil elastase and granulocyte colony-stimulating factor receptor mutation analyses and leukemia evolution in severe congenital neutropenia patients belonging to the original Kostmann family in northern Sweden.](#)  
Carlsson G, Aprikyan AA, Ericson KG, Stein S, Makaryan V, Dale DC, Nordenskjöld M, Fadeel B, Palmblad J, Hentera JI.  
Haematologica. 2006 May;91(5):589-95.  
PMID: 16670064 [PubMed - indexed for MEDLINE] **Free Article**
- 32. [Altered IL-7Ralpha expression with aging and the potential implications of IL-7 therapy on CD8+ T-cell immune responses.](#)  
Kim HR, Hong MS, Dan JM, Kang I.  
Blood. 2006 Apr 1;107(7):2855-62. Epub 2005 Dec 15.  
PMID: 16357322 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 33. [Zinc-finger transcription factor Gfi-1: versatile regulator of lymphocytes, neutrophils and hematopoietic stem cells.](#)  
Hock H, Orkin SH.  
Curr Opin Hematol. 2006 Jan;13(1):1-6. Review.  
PMID: 16319680 [PubMed - indexed for MEDLINE]
- 34. [Gfi1 coordinates epigenetic repression of p21Cip/WAF1 by recruitment of histone lysine methyltransferase G9a and histone deacetylase 1.](#)  
Duan Z, Zarebski A, Montoya-Durango D, Grimes HL, Horwitz M.  
Mol Cell Biol. 2005 Dec;25(23):10338-51.  
PMID: 16287849 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 35. [Identification of growth factor independent-1 \(GFI1\) as a repressor of 25-hydroxyvitamin D 1-alpha hydroxylase \(CYP27B1\) gene expression in human prostate cancer cells.](#)  
Dwivedi PP, Anderson PH, Omdahl JL, Grimes HL, Morris HA, May BK.  
Endocr Relat Cancer. 2005 Jun;12(2):351-65.  
PMID: 15947108 [PubMed - indexed for MEDLINE] **Free Article**
- 36. [Autosomal-dominant primary immunodeficiencies.](#)  
Lawrence T, Puel A, Reichenbach J, Ku CL, Chapgier A, Renner E, Minard-Colin V, Ouachée M, Casanova JL.  
Curr Opin Hematol. 2005 Jan;12(1):22-30. Review.  
PMID: 15604887 [PubMed - indexed for MEDLINE]
- 37. [Gfi/Pag-3/senseless zinc finger proteins: a unifying theme?](#)  
Jafar-Nejad H, Bellen HJ.  
Mol Cell Biol. 2004 Oct;24(20):8803-12. Review. No abstract available.  
PMID: 15456856 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 38. [Evaluation of immunohistochemical markers in non-small cell lung cancer by unsupervised hierarchical clustering analysis: a tissue microarray study of 284 cases and 18 markers.](#)  
Au NH, Cheang M, Huntsman DG, Yorida E, Coldman A, Elliott WM, Bebb G, Flint J, English J, Gilks CB, Grimes HL.

J Pathol. 2004 Sep;204(1):101-9.

PMID: 15307143 [PubMed - indexed for MEDLINE]

- 39.  [Elucidation of correspondence between swine chromosome 4 and human chromosome 1 by assigning 27 genes to the ImpRH map, and development of microsatellites in the proximity of 14 genes.](#)  
Hiraiwa H, Sawazaki T, Suzuki K, Fujishima-Kanaya N, Toki D, Ito Y, Uenishi H, Hayashi T, Awata T, Yasue H.  
Cytogenet Genome Res. 2003;101(1):84-9.  
PMID: 14571142 [PubMed - indexed for MEDLINE]
  
- 40.  [CCAAT-binding factor regulates expression of the beta1 subunit of soluble guanylyl cyclase gene in the BE2 human neuroblastoma cell line.](#)  
Sharina IG, Martin E, Thomas A, Uray KL, Murad F.  
Proc Natl Acad Sci U S A. 2003 Sep 30;100(20):11523-8. Epub 2003 Sep 22.  
PMID: 14504408 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- 41.  [The role of apoptosis in the pathophysiology of chronic neutropenias associated with bone marrow failure.](#)  
Papadaki HA, Eliopoulos GD.  
Cell Cycle. 2003 Sep-Oct;2(5):447-51. Review.  
PMID: 12963840 [PubMed - indexed for MEDLINE] **Free Article**
  
- 42.  [Gfi-1 attaches to the nuclear matrix, associates with ETO \(MTG8\) and histone deacetylase proteins, and represses transcription using a TSA-sensitive mechanism.](#)  
McGhee L, Bryan J, Elliott L, Grimes HL, Kazanjian A, Davis JN, Meyers S.  
J Cell Biochem. 2003 Aug 1;89(5):1005-18.  
PMID: 12874834 [PubMed - indexed for MEDLINE]
  
- 43.  [Identification and characterization of human SNAIL3 \(SNAI3\) gene in silico.](#)  
Kato M, Kato M.  
Int J Mol Med. 2003 Mar;11(3):383-8.  
PMID: 12579345 [PubMed - indexed for MEDLINE]
  
- 44.  [Cloning of the human Gfi-1 gene and its mapping to chromosome region 1p22.](#)  
Roberts T, Cowell JK.  
Oncogene. 1997 Feb 27;14(8):1003-5.  
PMID: 9051000 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: Kostmann disease and Case Reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (30)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 30

- [Comparative analysis of Shwachman-Diamond syndrome to other inherited bone marrow failure syndromes and genotype-phenotype correlation.](#)  
Hashmi S, Allen C, Klaassen R, Fernandez C, Yanofsky R, Shereck E, Champagne J, Silva M, Lipton J, Brossard J, Samson Y, Abish S, Steele M, Ali K, Dower N, Athale U, Jardine L, Hand J, Beyene J, Dror Y.  
Clin Genet. 2010 May 22. doi: 10.1111/j.1399-0004.2010.01468.x. [Epub ahead of print]  
PMID: 20569259 [PubMed - as supplied by publisher]
- [Kostmann disease with developmental delay in three patients.](#)  
Aytekin C, Germeshausen M, Tuygun N, Tanir G, Dogu F, Ikinociogullari A.  
Eur J Pediatr. 2010 Jun;169(6):759-62. Epub 2010 Feb 23.  
PMID: 20177699 [PubMed - indexed for MEDLINE]
- [A novel missense mutation in the HAX1 gene in severe congenital neutropenia patients \(Kostmann disease\).](#)  
Faiyaz-Ul-Haque M, Al-Jefri A, Abalkhail HA, Toulimat M, Al-Muallimi MA, Pulicat MS, Gaafar A, Alaiya AA, Al-Dayel F, Peltekova I, Zaidi SH.  
Clin Genet. 2009 Dec;76(6):569-72. Epub 2009 Oct 1. No abstract available.  
PMID: 19796188 [PubMed - indexed for MEDLINE]
- [Compound heterozygous HAX1 mutations in a Swedish patient with severe congenital neutropenia and no neurodevelopmental abnormalities.](#)  
Carlsson G, Elinder G, Malmgren H, Trebinska A, Grzybowska E, Dahl N, Nordenskjöld M, Fadeel B.  
Pediatr Blood Cancer. 2009 Dec;53(6):1143-6.  
PMID: 19499579 [PubMed - indexed for MEDLINE]
- [Central nervous system involvement in severe congenital neutropenia: neurological and neuropsychological abnormalities associated with specific HAX1 mutations.](#)  
Carlsson G, van't Hooff I, Melin M, Entesarian M, Laurencikas E, Nennesmo I, Trebińska A, Grzybowska E, Palmblad J, Dahl N, Nordenskjöld M, Fadeel B, Henter JI.  
J Intern Med. 2008 Oct;264(4):388-400. Epub 2008 May 29.  
PMID: 18513342 [PubMed - indexed for MEDLINE]
- [Late-onset neutropenia associated with rituximab therapy: evidence for a maturation arrest at the \(pro\)myelocyte stage of granulopoiesis.](#)  
Tesfa D, Gelius T, Sander B, Kimby E, Fadeel B, Palmblad J, Häggglund H.  
Med Oncol. 2008;25(4):374-9. Epub 2008 Feb 16.  
PMID: 18278570 [PubMed - indexed for MEDLINE]
- [The effect of donor leukocyte infusion on refractory pure red blood cell aplasia after allogeneic stem cell transplantation in a patient with myelodysplastic syndrome developing from Kostmann syndrome.](#)  
Ebihara Y, Manabe A, Tsuruta T, Ishikawa K, Hasegawa D, Ohtsuka Y, Kawasaki H, Ogami K, Wada Y, Kanda T, Tsuji K.  
Int J Hematol. 2007 Dec;86(5):446-50.  
PMID: 18192114 [PubMed - indexed for MEDLINE]
- [Unrelated bone marrow transplantation using a reduced-intensity conditioning regimen for the treatment of Kostmann syndrome.](#)  
Fukano R, Nagatoshi Y, Shinkoda Y, Saito Y, Takahashi D, Hatanaka M, Nagayama J, Ayukawa H, Okamura J.  
Bone Marrow Transplant. 2006 Nov;38(9):635-6. Epub 2006 Sep 4. No abstract available.  
PMID: 16953204 [PubMed - indexed for MEDLINE]
- [Recurrent epididymo-orchitis in an 8-year-old child with Kostmann syndrome \(severe congenital neutropenia\).](#)  
Celik U, Alabaz D, Kocabas E, Leblebisatan G.  
Ann Trop Paediatr. 2006 Jun;26(2):153-4.  
PMID: 16709337 [PubMed - indexed for MEDLINE]
- [Periodontal disease in patients from the original Kostmann family with severe congenital neutropenia.](#)  
Carlsson G, Wahlin YB, Johansson A, Olsson A, Eriksson T, Claesson R, Hänström L, Henter JI.  
J Periodontol. 2006 Apr;77(4):744-51.  
PMID: 16584360 [PubMed - indexed for MEDLINE]
- [Detection and quantification of herpesviruses in Kostmann syndrome periodontitis using real-time polymerase chain reaction: a case report.](#)  
Yildirim S, Yapar M, Kubar A.  
Oral Microbiol Immunol. 2006 Apr;21(2):73-8.  
PMID: 16476015 [PubMed - indexed for MEDLINE]



- [Periodontal status in two siblings with severe congenital neutropenia: diagnosis and mutational analysis of the cases.](#)  
Hakki SS, Aprikyan AA, Yildirim S, Aydinbelge M, Gokalp A, Ucar C, Guran S, Koseoglu V, Ataoglu T, Somerman MJ.  
J Periodontol. 2005 May;76(5):837-44.  
PMID: 15898946 [PubMed - indexed for MEDLINE]
13. [Association of chronic symptomatic neutropenia with the triple A syndrome.](#)  
Spiegel R, Shalev S, Huebner A, Horovitz Y.  
J Pediatr Hematol Oncol. 2005 Jan;27(1):53-5.  
PMID: 15654281 [PubMed - indexed for MEDLINE]
14. [Successful engraftment following unrelated donor transplant in an alloimmunized patient with Kostmann syndrome.](#)  
Myers SN, Zeevi A, Zorich GP, Pillage G, Martel J, Goyal RK.  
Pediatr Blood Cancer. 2005 May;44(5):508-10.  
PMID: 15481082 [PubMed - indexed for MEDLINE]
15. [Uneventful outcome of unrelated hematopoietic stem cell transplantation in a patient with leukemic transformation of Kostmann syndrome and long-lasting invasive pulmonary mycosis.](#)  
Dallorso S, Manzitti C, Dodero P, Faraci M, Rosanda C, Castagnola E.  
Eur J Haematol. 2003 May;70(5):322-5.  
PMID: 12694170 [PubMed - indexed for MEDLINE]
16. [Early-onset group B streptococcal sepsis in a preterm infant with Kostmann syndrome.](#)  
Fujii T, Maruyama K, Koizumi T.  
Acta Paediatr. 2002;91(12):1397-9.  
PMID: 12578301 [PubMed - indexed for MEDLINE]
17. [Oral manifestations of congenital neutropenia or Kostmann syndrome.](#)  
Defraia E, Marinelli A.  
J Clin Pediatr Dent. 2001 Fall;26(1):99-102. Review.  
PMID: 11688822 [PubMed - indexed for MEDLINE]
18. [Successful unrelated BMT in a patient with Kostmann syndrome complicated by pre-transplant pulmonary 'bacterial' abscesses.](#)  
Toyoda H, Azuma E, Hori H, Hirayama M, Kobayashi M, Isogai K, Kondo N, Komada Y.  
Bone Marrow Transplant. 2001 Aug;28(4):413-5.  
PMID: 11571517 [PubMed - indexed for MEDLINE] **Free Article**
19. [Infantile genetic agranulocytosis, morbus Kostmann: presentation of six cases from the original "Kostmann family" and a review.](#)  
Carlsson G, Fasth A.  
Acta Paediatr. 2001 Jul;90(7):757-64. Review.  
PMID: 11519978 [PubMed - indexed for MEDLINE]
20. [Usefulness of bronchoalveolar lavage for the diagnosis and treatment of refractory pneumonia in a patient with Kostmann syndrome, a severe congenital neutropenia.](#)  
Chiba T, Hayakawa J, Ueda T, Migita M, Maeda M, Imai T, Takase M, Hida M, Fukunaga Y.  
J Nippon Med Sch. 2001 Aug;68(4):340-3.  
PMID: 11505282 [PubMed - indexed for MEDLINE] **Free Article**
21. [Clinical periodontal findings and microflora profiles in children with chronic neutropenia under supervised oral hygiene.](#)  
Okada M, Kobayashi M, Hino T, Kurihara H, Miura K.  
J Periodontol. 2001 Jul;72(7):945-52.  
PMID: 11495144 [PubMed - indexed for MEDLINE]
22. [Failure of granulocyte colony-stimulating factor and granulocyte-macrophage colony-stimulating factor in a patient with Kostmann syndrome.](#)  
Hazar V, Ongun H, Yeşilipek MA, Yeğin O.  
Turk J Pediatr. 1999 Jan-Mar;41(1):117-20.  
PMID: 10770686 [PubMed - indexed for MEDLINE]
23. [Bilateral basal ganglial necrosis after allogeneic bone marrow transplantation in a child with Kostmann syndrome.](#)  
Suga N, Nagatoshi Y, Gondou K, Kira R, Ikuno Y, Okamura J.  
Bone Marrow Transplant. 1999 Mar;23(5):515-7.  
PMID: 10100568 [PubMed - indexed for MEDLINE] **Free Article**
24. [The occurrence of Kostmann syndrome in preterm neonates.](#)  
Calhoun DA, Christensen RD.  
Pediatrics. 1997 Feb;99(2):259-61. No abstract available.  
PMID: 9024459 [PubMed - indexed for MEDLINE]
25. [An abnormal clone with monosomy 7 and trisomy 21 in the bone marrow of a child with congenital agranulocytosis \(Kostmann disease\) treated with granulocyte colony-stimulating factor. Evolution towards myelodysplastic syndrome and acute basophilic leukemia.](#)  
Shekhter-Levin S, Penchansky L, Wollman MR, Sherer ME, Wald N, Gollin SM.  
Cancer Genet Cytogenet. 1995 Oct 15;84(2):99-104.

PMID: 8536230 [PubMed - indexed for MEDLINE]

26. [Transformation of congenital neutropenia into monosomy 7 and acute nonlymphoblastic leukemia in a child treated with granulocyte colony-stimulating factor.](#)  
Weinblatt ME, Scimeca P, James-Herry A, Sahdev I, Kochen J.  
J Pediatr. 1995 Feb;126(2):263-5. Review.  
PMID: 7531241 [PubMed - indexed for MEDLINE]
27. [Kostmann syndrome.](#)  
Agarwal MB, Vishwanathan C.  
Indian Pediatr. 1992 Feb;29(2):234-7. No abstract available.  
PMID: 1592509 [PubMed - indexed for MEDLINE]
28. [\[Correction of fatal genetic diseases using bone marrow transplantation. 2\].](#)  
Zintl F, Hermann J, Fuchs D, Prager J, Müller A, Reiners B, Füller J.  
Kinderarztl Prax. 1991 Jan-Feb;59(1-2):10-5. German.  
PMID: 2056655 [PubMed - indexed for MEDLINE]
29. [\[Chronic neutropenia \(author's transl\)\].](#)  
Speer C, Zappel H, Gahr M.  
Dtsch Med Wochenschr. 1982 Mar 5;107(9):339-41. German.  
PMID: 7060498 [PubMed - indexed for MEDLINE]
30. [Lithium therapy of children with chronic neutropenia.](#)  
Chan HS, Freedman MH, Saunders EF.  
Am J Med. 1981 May;70(5):1073-7.  
PMID: 7234874 [PubMed - indexed for MEDLINE]

Limits Activated: Humans [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 45 articles](#) about **HAX1** gene function[HAX1](#) HCLS1 associated protein X-1 [Homo sapiens]hax1 in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 8 Gene records](#)

## Results: 15 Selected: 10

- [HAX1 mutations causing severe congenital neutropenia and neurological disease lead to cerebral microstructural abnormalities documented by quantitative MRI.](#)
1. Boztug K, Ding XQ, Hartmann H, Ziesenitz L, Schäffer AA, Diestelhorst J, Pfeifer D, Appaswamy G, Kehbel S, Simon T, Al Jefri A, Lanfermann H, Klein C.  
Am J Med Genet A. 2010 Dec;152A(12):3157-63.  
PMID: 21108402 [PubMed - indexed for MEDLINE]
- [\[Molecular analysis of two cases of severe congenital neutropenia\].](#)
2. Park J, Kim M, Lim J, Kim Y, Cho B, Park YJ, Han K.  
Korean J Lab Med. 2010 Apr;30(2):111-6. Korean.  
PMID: 20445326 [PubMed - indexed for MEDLINE] **Free Article**
- [HAX1 mutation in an infant with severe congenital neutropenia.](#)
3. Eghbali A, Eshghi P, Malek F, Abdollahpour H, Rezaei N.  
Turk J Pediatr. 2010 Jan-Feb;52(1):81-4.  
PMID: 20402072 [PubMed - indexed for MEDLINE]
- [A novel HAX1 gene mutation in severe congenital neutropenia \(SCN\) associated with neurological manifestations.](#)
4. Faiyaz-Ul-Haque M, Al-Jefri A, Al-Dayel F, Bhuiyan JA, Abalkhail HA, Al-Nounou R, Al-Abdullatif A, Pulicat MS, Gaafar A, Alaiya AA, Peltekova I, Zaidi SH.  
Eur J Pediatr. 2010 Jun;169(6):661-6. Epub 2010 Feb 25.  
PMID: 20182745 [PubMed - indexed for MEDLINE]
- [Kostmann disease with developmental delay in three patients.](#)
5. Aytakin C, Germeshausen M, Tuygun N, Tanir G, Dogu F, Ikinciogullari A.  
Eur J Pediatr. 2010 Jun;169(6):759-62. Epub 2010 Feb 23.  
PMID: 20177699 [PubMed - indexed for MEDLINE]
- [Severe congenital neutropenia in 2 siblings of consanguineous parents. The role of HAX1 deficiency.](#)
6. Mamishi S, Esfahani SA, Parvaneh N, Diestelhorst J, Rezaei N.  
J Investig Allergol Clin Immunol. 2009;19(6):500-3.  
PMID: 20128427 [PubMed - indexed for MEDLINE] **Free Article**
- [A novel missense mutation in the HAX1 gene in severe congenital neutropenia patients \(Kostmann disease\).](#)
7. Faiyaz-Ul-Haque M, Al-Jefri A, Abalkhail HA, Toulimat M, Al-Muallimi MA, Pulicat MS, Gaafar A, Alaiya AA, Al-Dayel F, Peltekova I, Zaidi SH.  
Clin Genet. 2009 Dec;76(6):569-72. Epub 2009 Oct 1. No abstract available.  
PMID: 19796188 [PubMed - indexed for MEDLINE]
- [Compound heterozygous HAX1 mutations in a Swedish patient with severe congenital neutropenia and no neurodevelopmental abnormalities.](#)
8. Carlsson G, Elinder G, Malmgren H, Trebinska A, Grzybowska E, Dahl N, Nordenskjöld M, Fadeel B.  
Pediatr Blood Cancer. 2009 Dec;53(6):1143-6.  
PMID: 19499579 [PubMed - indexed for MEDLINE]
- [Necrosis of nasal cartilage due to mucormycosis in a patient with severe congenital neutropenia due to HAX1 deficiency.](#)
9. Fahimzad A, Chavoshzadeh Z, Abdollahpour H, Klein C, Rezaei N.  
J Investig Allergol Clin Immunol. 2008;18(6):469-72.  
PMID: 19123440 [PubMed - indexed for MEDLINE] **Free Article**

- [Severe congenital neutropenia or hyper-IgM syndrome? A novel mutation of CD40 ligand in a patient with severe neutropenia.](#)
10. Rezaei N, Aghamohammadi A, Ramyar A, Pan-Hammarstrom Q, Hammarstrom L.  
Int Arch Allergy Immunol. 2008;147(3):255-9. Epub 2008 Jul 2.  
PMID: 18594157 [PubMed - indexed for MEDLINE]
- [Central nervous system involvement in severe congenital neutropenia: neurological and neuropsychological abnormalities associated with specific HAX1 mutations.](#)
11. Carlsson G, van't Hooft I, Melin M, Entesarian M, Laurencikas E, Nennesmo I, Trebińska A, Grzybowska E, Palmblad J, Dahl N, Nordenskjöld M, Fadeel B, Henter JI.  
J Intern Med. 2008 Oct;264(4):388-400. Epub 2008 May 29.  
PMID: 18513342 [PubMed - indexed for MEDLINE]
- [Transformation of severe congenital neutropenia to early acute lymphoblastic leukemia in a patient with HAX1 mutation and without G-CSF administration or receptor mutation.](#)
12. Yetgin S, Olcay L, Koç A, Germeshausen M.  
Leukemia. 2008 Sep;22(9):1797. Epub 2008 Mar 20. No abstract available.  
PMID: 18354489 [PubMed - indexed for MEDLINE]
- [Association of HAX1 deficiency with neurological disorder.](#)
13. Rezaei N, Chavoshzadeh Z, R Alaei O, Sandrock I, Klein C.  
Neuropediatrics. 2007 Oct;38(5):261-3.  
PMID: 18330843 [PubMed - indexed for MEDLINE]
- [Late-onset neutropenia associated with rituximab therapy: evidence for a maturation arrest at the \(pro\)myelocyte stage of granulopoiesis.](#)
14. Tesfa D, Gelius T, Sander B, Kimby E, Fadeel B, Palmblad J, Hägglund H.  
Med Oncol. 2008;25(4):374-9. Epub 2008 Feb 16.  
PMID: 18278570 [PubMed - indexed for MEDLINE]
- [Severe developmental delay and epilepsy in a Japanese patient with severe congenital neutropenia due to HAX1 deficiency.](#)
15. Matsubara K, Imai K, Okada S, Miki M, Ishikawa N, Tsumura M, Kato T, Ohara O, Nonoyama S, Kobayashi M.  
Haematologica. 2007 Dec;92(12):e123-5.  
PMID: 18055975 [PubMed - indexed for MEDLINE] **Free Article**

Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 181

- 1. [Variability of bone marrow morphology in G6PC3 mutations: is there a genotype-phenotype correlation or age-dependent relationship?](#)  
Banka S, Wynn R, Newman WG.  
Am J Hematol. 2011 Feb;86(2):235-7. doi: 10.1002/ajh.21930. No abstract available.  
PMID: 21264919 [PubMed - indexed for MEDLINE]
- 2. [\[Kostmann disease in children\].](#)  
Salaru M, Miron I, Tansanu I, Georgescu D, Florea MM.  
Rev Med Chir Soc Med Nat Iasi. 2010 Jul-Sep;114(3):753-6. Romanian.  
PMID: 21243803 [PubMed - indexed for MEDLINE]
- 3. [HAX1 mutations causing severe congenital neutropenia and neurological disease lead to cerebral microstructural abnormalities documented by quantitative MRI.](#)  
Boztug K, Ding XQ, Hartmann H, Ziesenitz L, Schäffer AA, Diestelhorst J, Pfeifer D, Appaswamy G, Kehbel S, Simon T, Al Jefri A, Lanfermann H, Klein C.  
Am J Med Genet A. 2010 Dec;152A(12):3157-63.  
PMID: 21108402 [PubMed - indexed for MEDLINE]
- 4. [Hematopoietic stem cell transplantation in severe congenital neutropenia.](#)  
Carlsson G, Winiarski J, Ljungman P, Ringdén O, Mattsson J, Nordenskjöld M, Touw I, Henter JI, Palmblad J, Fadeel B, Hägglund H.  
Pediatr Blood Cancer. 2011 Mar;56(3):444-51.  
PMID: 21072829 [PubMed - indexed for MEDLINE]
- 5. [Severe congenital neutropenia in a multigenerational family with a novel neutrophil elastase \(ELANE\) mutation.](#)  
van de Vosse E, Verhard EM, Tool AJ, de Visser AW, Kuijpers TW, Hiemstra PS, van Dissel JT.  
Ann Hematol. 2011 Feb;90(2):151-8. Epub 2010 Aug 28.  
PMID: 20803142 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 6. [Cyclic neutropenia and severe congenital neutropenia in patients with a shared ELANE mutation and paternal haplotype: evidence for phenotype determination by modifying genes.](#)  
Newburger PE, Pindyck TN, Zhu Z, Bolyard AA, Aprikyan AA, Dale DC, Smith GD, Boxer LA.  
Pediatr Blood Cancer. 2010 Aug;55(2):314-7.  
PMID: 20582973 [PubMed - indexed for MEDLINE]
- 7. [Stable long-term risk of leukaemia in patients with severe congenital neutropenia maintained on G-CSF therapy.](#)  
Rosenberg PS, Zeidler C, Bolyard AA, Alter BP, Bonilla MA, Boxer LA, Dror Y, Kinsey S, Link DC, Newburger PE, Shimamura A, Welte K, Dale DC.  
Br J Haematol. 2010 Jul;150(2):196-9. Epub 2010 Apr 29.  
PMID: 20456363 [PubMed - indexed for MEDLINE]
- 8. [\[Molecular analysis of two cases of severe congenital neutropenia\].](#)  
Park J, Kim M, Lim J, Kim Y, Cho B, Park YJ, Han K.  
Korean J Lab Med. 2010 Apr;30(2):111-6. Korean.  
PMID: 20445326 [PubMed - indexed for MEDLINE] **Free Article**
- 9. [Frequency and natural history of inherited bone marrow failure syndromes: the Israeli Inherited Bone Marrow Failure Registry.](#)  
Tamary H, Nishri D, Yacobovich J, Zilber R, Dgany O, Krasnov T, Aviner S, Stepensky P, Ravel-Vilk S, Bitan M, Kaplinsky C, Ben Barak A, Elhasid R, Kapelusnik J, Koren A, Levin C, Attias D, Laor R, Yaniv I, Rosenberg PS, Alter BP.  
Haematologica. 2010 Aug;95(8):1300-7. Epub 2010 Apr 30.  
PMID: 20435624 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 10. [HAX1 mutation in an infant with severe congenital neutropenia.](#)  
Eghbali A, Eshghi P, Malek F, Abdollahpour H, Rezaei N.  
Turk J Pediatr. 2010 Jan-Feb;52(1):81-4.  
PMID: 20402072 [PubMed - indexed for MEDLINE]
- 11. [Hematopoietic stem cell transplantation in patients with severe congenital neutropenia: an analysis of 18 Japanese cases.](#)  
Oshima K, Hanada R, Kobayashi R, Kato K, Nagatoshi Y, Tabuchi K, Kato S; Hematopoietic Stem Cell Transplantation Committee of the Japanese Society of Pediatric Hematology.  
Pediatr Transplant. 2010 Aug;14(5):657-63. Epub 2010 Mar 17.  
PMID: 20331518 [PubMed - indexed for MEDLINE]

- [Digenic mutations in severe congenital neutropenia.](#)
- 12. Germeshausen M, Zeidler C, Stuhmann M, Lanciotti M, Ballmaier M, Welte K. *Haematologica*. 2010 Jul;95(7):1207-10. Epub 2010 Mar 10. PMID: 20220065 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [A novel HAX1 gene mutation in severe congenital neutropenia \(SCN\) associated with neurological manifestations.](#)
- 13. Faiyaz-Ul-Haque M, Al-Jefri A, Al-Dayel F, Bhuiyan JA, Abalkhail HA, Al-Nounou R, Al-Abdullatif A, Pulicat MS, Gaafar A, Alaiya AA, Peltekova I, Zaidi SH. *Eur J Pediatr*. 2010 Jun;169(6):661-6. Epub 2010 Feb 25. PMID: 20182745 [PubMed - indexed for MEDLINE]
- [Kostmann disease with developmental delay in three patients.](#)
- 14. Aytakin C, Germeshausen M, Tuygun N, Tanir G, Dogu F, Ikinogullari A. *Eur J Pediatr*. 2010 Jun;169(6):759-62. Epub 2010 Feb 23. PMID: 20177699 [PubMed - indexed for MEDLINE]
- [Severe congenital neutropenia in 2 siblings of consanguineous parents. The role of HAX1 deficiency.](#)
- 15. Mamishi S, Esfahani SA, Parvaneh N, Diestelhorst J, Rezaei N. *J Investig Allergol Clin Immunol*. 2009;19(6):500-3. PMID: 20128427 [PubMed - indexed for MEDLINE] **Free Article**
- [Leukocytoclastic vasculitis in patients with severe congenital neutropenia.](#)
- 16. Kilic SS, Mustafayeva S, Ipek K, Adim SB. *J Trop Pediatr*. 2010 Oct;56(5):359-62. Epub 2010 Jan 25. PMID: 20100783 [PubMed - indexed for MEDLINE]
- [\[Neurological findings in severe congenital neutropenia with HAX1 mutations\].](#)
- 17. Ishikawa N, Kobayashi M. *No To Hattatsu*. 2009 Nov;41(6):415-9. Japanese. PMID: 19928538 [PubMed - indexed for MEDLINE]
- [Pegfilgrastim in children with severe congenital neutropenia.](#)
- 18. Fioredda F, Calvillo M, Lanciotti M, Lanza T, Giunti L, Castagnola E, Lorenzi I, Tonelli R, Ghezzi P, Dufour C. *Pediatr Blood Cancer*. 2010 Mar;54(3):465-7. PMID: 19927291 [PubMed - indexed for MEDLINE]
- [RAS and CSF3R mutations in severe congenital neutropenia.](#)
- 19. Germeshausen M, Kratz CP, Ballmaier M, Welte K. *Blood*. 2009 Oct 15;114(16):3504-5. No abstract available. PMID: 19833857 [PubMed - indexed for MEDLINE] **Free Article**
- [Dysregulation of myeloid-specific transcription factors in congenital neutropenia.](#)
- 20. Skokowa J, Welte K. *Ann N Y Acad Sci*. 2009 Sep;1176:94-100. PMID: 19796237 [PubMed - indexed for MEDLINE]
- [A novel missense mutation in the HAX1 gene in severe congenital neutropenia patients \(Kostmann disease\).](#)
- 21. Faiyaz-Ul-Haque M, Al-Jefri A, Abalkhail HA, Toulimat M, Al-Muallimi MA, Pulicat MS, Gaafar A, Alaiya AA, Al-Dayel F, Peltekova I, Zaidi SH. *Clin Genet*. 2009 Dec;76(6):569-72. Epub 2009 Oct 1. No abstract available. PMID: 19796188 [PubMed - indexed for MEDLINE]
- [Prevalence of mutations in ELANE, GFI1, HAX1, SBDS, WAS and G6PC3 in patients with severe congenital neutropenia.](#)
- 22. Xia J, Bolyard AA, Rodger E, Stein S, Aprikyan AA, Dale DC, Link DC. *Br J Haematol*. 2009 Nov;147(4):535-42. Epub 2009 Sep 22. PMID: 19775295 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [A novel G6PC3 homozygous 1-bp deletion as a cause of severe congenital neutropenia.](#)
- 23. Aróstegui JI, de Toledo JS, Pascal M, García C, Yagüe J, Díaz de Heredia C. *Blood*. 2009 Aug 20;114(8):1718-9. No abstract available. PMID: 19696212 [PubMed - indexed for MEDLINE] **Free Article**
- [Double de novo mutations of ELANE \(ELA2\) in a patient with severe congenital neutropenia requiring high-dose G-CSF therapy.](#)
- 24. Lundén L, Boxhammer S, Carlsson G, Ellström KG, Nordenskjöld M, Lagerstedt-Robinson K, Fadeel B. *Br J Haematol*. 2009 Nov;147(4):587-90. Epub 2009 Aug 19. No abstract available. PMID: 19694719 [PubMed - indexed for MEDLINE]

- 25. [Neutrophil elastase is severely down-regulated in severe congenital neutropenia independent of ELA2 or HAX1 mutations but dependent on LEF-1.](#)  
Skokowa J, Fobiwe JP, Dan L, Thakur BK, Welte K.  
Blood. 2009 Oct 1;114(14):3044-51. Epub 2009 Jul 20.  
PMID: 19620402 [PubMed - indexed for MEDLINE] **Free Article**
- 26. [Severe congenital neutropenia: a negative synergistic effect of multiple mutations of ELANE \(ELA2\) gene.](#)  
Lanciotti M, Caridi G, Rosano C, Pigullo S, Lanza T, Dufour C.  
Br J Haematol. 2009 Sep;146(5):578-80. Epub 2009 Jul 6. No abstract available.  
PMID: 19594744 [PubMed - indexed for MEDLINE]
- 27. [Contributions to neutropenia from PFAAP5 \(N4BP2L2\), a novel protein mediating transcriptional repressor cooperation between Gfi1 and neutrophil elastase.](#)  
Salipante SJ, Rojas ME, Korkmaz B, Duan Z, Wechsler J, Benson KF, Person RE, Grimes HL, Horwitz MS.  
Mol Cell Biol. 2009 Aug;29(16):4394-405. Epub 2009 Jun 8.  
PMID: 19506020 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 28. [Compound heterozygous HAX1 mutations in a Swedish patient with severe congenital neutropenia and no neurodevelopmental abnormalities.](#)  
Carlsson G, Elinder G, Malmgren H, Trebinska A, Grzybowska E, Dahl N, Nordenskjöld M, Fadeel B.  
Pediatr Blood Cancer. 2009 Dec;53(6):1143-6.  
PMID: 19499579 [PubMed - indexed for MEDLINE]
- 29. [Site-specific ubiquitination determines lysosomal sorting and signal attenuation of the granulocyte colony-stimulating factor receptor.](#)  
Wölfler A, Irandoust M, Meenhuis A, Gits J, Roovers O, Touw IP.  
Traffic. 2009 Aug;10(8):1168-79. Epub 2009 May 12.  
PMID: 19453968 [PubMed - indexed for MEDLINE]
- 30. [Ela2 mutations and clinical manifestations in familial congenital neutropenia.](#)  
Shiohara M, Shigemura T, Saito S, Tanaka M, Yanagisawa R, Sakashita K, Asada H, Ishii E, Koike K, Chin M, Kobayashi M, Koike K.  
J Pediatr Hematol Oncol. 2009 May;31(5):319-24.  
PMID: 19415009 [PubMed - indexed for MEDLINE]
- 31. [Acute lymphoblastic leukemia following severe congenital neutropenia or de novo ALL?](#)  
Valera ET, Brassesco MS, Germeshausen M, Silveira Vda S, Queiroz RG, Roxo P, Scrideli CA, de Menezes UP, Ferriani V, Tone LG.  
Leuk Res. 2009 Sep;33(9):e139-42. Epub 2009 Apr 26.  
PMID: 19398129 [PubMed - indexed for MEDLINE]
- 32. [Severe congenital neutropenia.](#)  
Welte K, Zeidler C.  
Hematol Oncol Clin North Am. 2009 Apr;23(2):307-20.  
PMID: 19327585 [PubMed - indexed for MEDLINE]
- 33. [Recent advances in primary immunodeficiencies: identification of novel genetic defects and unanticipated phenotypes.](#)  
Pessach I, Walter J, Notarangelo LD.  
Pediatr Res. 2009 May;65(5 Pt 2):3R-12R.  
PMID: 19190530 [PubMed - indexed for MEDLINE]
- 34. [NAMPT is essential for the G-CSF-induced myeloid differentiation via a NAD\(+\)-sirtuin-1-dependent pathway.](#)  
Skokowa J, Lan D, Thakur BK, Wang F, Gupta K, Cario G, Brechlin AM, Schambach A, Hinrichsen L, Meyer G, Gaestel M, Stanulla M, Tong Q, Welte K.  
Nat Med. 2009 Feb;15(2):151-8. Epub 2009 Feb 1.  
PMID: 19182797 [PubMed - indexed for MEDLINE]
- 35. [Necrosis of nasal cartilage due to mucormycosis in a patient with severe congenital neutropenia due to HAX1 deficiency.](#)  
Fahimzad A, Chavoshzadeh Z, Abdollahpour H, Klein C, Rezaei N.  
J Investig Allergol Clin Immunol. 2008;18(6):469-72.  
PMID: 19123440 [PubMed - indexed for MEDLINE] **Free Article**
- 36. [A syndrome with congenital neutropenia and mutations in G6PC3.](#)  
Boztug K, Appaswamy G, Ashikov A, Schäffer AA, Salzer U, Diestelhorst J, Germeshausen M, Brandes G, Lee-Gossler J, Noyan F, Gatzke AK, Minkov M, Greil J, Kratz C, Petropoulou T, Pellier I, Bellanné-Chantelot C, Rezaei N, Mönkemöller K, Irani-Hakimeh N, Bakker H, Gerardy-Schahn R, Zeidler C, Grimbacher B, Welte K, Klein C.  
N Engl J Med. 2009 Jan 1;360(1):32-43.  
PMID: 19118303 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 37. [The many causes of severe congenital neutropenia.](#)  
Dale DC, Link DC.  
N Engl J Med. 2009 Jan 1;360(1):3-5. No abstract available.  
PMID: 19118300 [PubMed - indexed for MEDLINE]



- 38. [Homozygous HAX1 mutations in severe congenital neutropenia patients with sporadic disease: a novel mutation in two unrelated British kindreds.](#)  
 Smith BN, Ancliff PJ, Pizzey A, Khwaja A, Linch DC, Gale RE.  
 Br J Haematol. 2009 Mar;144(5):762-70. Epub 2008 Nov 22.  
 PMID: 19036076 [PubMed - indexed for MEDLINE]
- 39. [In vivo expansion of cells expressing acquired CSF3R mutations in patients with severe congenital neutropenia.](#)  
 Germeshausen M, Welte K, Ballmaier M.  
 Blood. 2009 Jan 15;113(3):668-70. Epub 2008 Nov 19.  
 PMID: 19020310 [PubMed - indexed for MEDLINE] **Free Article**
- 40. [A large kindred with X-linked neutropenia with an I294T mutation of the Wiskott-Aldrich syndrome gene.](#)  
 Beel K, Cotter MM, Blatny J, Bond J, Lucas G, Green F, Vanduppen V, Leung DW, Rooney S, Smith OP, Rosen MK, Vandenberghe P.  
 Br J Haematol. 2009 Jan;144(1):120-6. Epub 2008 Nov 1.  
 PMID: 19006568 [PubMed - indexed for MEDLINE]
- 41. [Unrelated cord blood transplantation in children with severe congenital neutropenia.](#)  
 Yesilipek MA, Tezcan G, Germeshausen M, Kupesiz A, Uygun V, Hazar V.  
 Pediatr Transplant. 2009 Sep;13(6):777-81. Epub 2008 Sep 26.  
 PMID: 18992063 [PubMed - indexed for MEDLINE]
- 42. [A novel mutation Ala57Val of the ELA2 gene in a Korean boy with severe congenital neutropenia.](#)  
 Lee ST, Yoon HS, Kim HJ, Lee JH, Park JH, Kim SH, Seo JJ, Im HJ.  
 Ann Hematol. 2009 Jun;88(6):593-5. Epub 2008 Oct 23. No abstract available.  
 PMID: 18946670 [PubMed - indexed for MEDLINE]
- 43. [G-CSFR ubiquitination critically regulates myeloid cell survival and proliferation.](#)  
 Ai J, Druhan LJ, Loveland MJ, Avalos BR.  
 PLoS One. 2008;3(10):e3422. Epub 2008 Oct 16.  
 PMID: 18923646 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 44. [Survivin expression in the bone marrow of patients with severe congenital neutropenia.](#)  
 Carlsson G, Boxhammer S, Garwicz D, Henter JI, Palmblad J, Nordenskjöld M, Porwit A, Fadeel B.  
 Leukemia. 2009 Mar;23(3):622-5. Epub 2008 Sep 25. No abstract available.  
 PMID: 18818705 [PubMed - indexed for MEDLINE]
- 45. [Severe congenital neutropenia and pegfilgrastim.](#)  
 Lähteenmäki PM, Jahnukainen K, Pelliniemi TT, Kainulainen L, Salmi TT.  
 Eur J Haematol. 2009 Jan;82(1):75-6. Epub 2008 Sep 4. No abstract available.  
 PMID: 18774955 [PubMed - indexed for MEDLINE]
- 46. [Vitamin D3 induces pro-LL-37 expression in myeloid precursors from patients with severe congenital neutropenia.](#)  
 Karlsson J, Carlsson G, Larne O, Andersson M, Pütsep K.  
 J Leukoc Biol. 2008 Nov;84(5):1279-86. Epub 2008 Aug 14.  
 PMID: 18703682 [PubMed - indexed for MEDLINE] **Free Article**
- 47. [Neurodevelopmental abnormalities associated with severe congenital neutropenia due to the R86X mutation in the HAX1 gene.](#)  
 Ishikawa N, Okada S, Miki M, Shirao K, Kihara H, Tsumura M, Nakamura K, Kawaguchi H, Ohtsubo M, Yasunaga S, Matsubara K, Sako M, Hara J, Shiohara M, Kojima S, Sato T, Takihara Y, Kobayashi M.  
 J Med Genet. 2008 Dec;45(12):802-7. Epub 2008 Jul 8.  
 PMID: 18611981 [PubMed - indexed for MEDLINE]
- 48. [Severe congenital neutropenia or hyper-IgM syndrome? A novel mutation of CD40 ligand in a patient with severe neutropenia.](#)  
 Rezaei N, Aghamohammadi A, Ramyar A, Pan-Hammarstrom Q, Hammarstrom L.  
 Int Arch Allergy Immunol. 2008;147(3):255-9. Epub 2008 Jul 2.  
 PMID: 18594157 [PubMed - indexed for MEDLINE]
- 49. [Severe congenital neutropenia: genetics and pathogenesis.](#)  
 Boxer LA.  
 Trans Am Clin Climatol Assoc. 2006;117:13-31; discussion 31-2.  
 PMID: 18528462 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 50. [Central nervous system involvement in severe congenital neutropenia: neurological and neuropsychological abnormalities associated with specific HAX1 mutations.](#)  
 Carlsson G, van't Hooff I, Melin M, Entesarian M, Laurencikas E, Nennesmo I, Trebińska A, Grzybowska E, Palmblad J, Dahl N, Nordenskjöld M, Fadeel B, Henter JI.  
 J Intern Med. 2008 Oct;264(4):388-400. Epub 2008 May 29.  
 PMID: 18513342 [PubMed - indexed for MEDLINE]



- [Functional interaction between mutations in the granulocyte colony-stimulating factor receptor in severe congenital neutropenia.](#)  
51. Ward AC, Gits J, Majeed F, Aprikyan AA, Lewis RS, O'Sullivan LA, Freedman M, Shigdar S, Touw IP, Dale DC, Dror Y.  
Br J Haematol. 2008 Aug;142(4):653-6.  
PMID: 18513286 [PubMed - indexed for MEDLINE]
- [Unrelated cord blood transplantation for severe congenital neutropenia: report of two cases with very different transplant courses.](#)  
52. Markel MK, Haut PR, Renbarger JA, Robertson KA, Goebel WS.  
Pediatr Transplant. 2008 Dec;12(8):896-901. Epub 2008 Apr 22.  
PMID: 18433408 [PubMed - indexed for MEDLINE]
- [\[HAX-1 protein: multifunctional factor involved in apoptosis, cell migration, endocytosis and mRNA transport\].](#)  
53. Szwarz M, Sarnowska E, Grzybowska EA.  
Postepy Biochem. 2007;53(3):218-27. Polish.  
PMID: 18399350 [PubMed - indexed for MEDLINE]
- [Transformation of severe congenital neutropenia to early acute lymphoblastic leukemia in a patient with HAX1 mutation and without G-CSF administration or receptor mutation.](#)  
54. Yetgin S, Olcay L, Koç A, Germeshausen M.  
Leukemia. 2008 Sep;22(9):1797. Epub 2008 Mar 20. No abstract available.  
PMID: 18354489 [PubMed - indexed for MEDLINE]
- [Novel HAX1 mutations in patients with severe congenital neutropenia reveal isoform-dependent genotype-phenotype associations.](#)  
55. Germeshausen M, Grudzien M, Zeidler C, Abdollahpour H, Yetgin S, Rezaei N, Ballmaier M, Grimbacher B, Welte K, Klein C.  
Blood. 2008 May 15;111(10):4954-7. Epub 2008 Mar 12.  
PMID: 18337561 [PubMed - indexed for MEDLINE] **Free Article**
- [Association of HAX1 deficiency with neurological disorder.](#)  
56. Rezaei N, Chavoshzadeh Z, R Alaei O, Sandrock I, Klein C.  
Neuropediatrics. 2007 Oct;38(5):261-3.  
PMID: 18330843 [PubMed - indexed for MEDLINE]
- [Late-onset neutropenia associated with rituximab therapy: evidence for a maturation arrest at the \(pro\)myelocyte stage of granulopoiesis.](#)  
57. Tesfa D, Gelius T, Sander B, Kimby E, Fadeel B, Palmblad J, Hägglund H.  
Med Oncol. 2008;25(4):374-9. Epub 2008 Feb 16.  
PMID: 18278570 [PubMed - indexed for MEDLINE]
- [Lymphadenopathy as the primary manifestation of malignant transformation in two patients with severe congenital neutropenia.](#)  
58. Gampfer CJ, Takemoto CM, Schowinsky J, Borowitz MJ, Horwitz MS, Strouse JJ.  
Pediatr Blood Cancer. 2008 May;50(5):1072-5.  
PMID: 18213714 [PubMed - indexed for MEDLINE]
- [Severe developmental delay and epilepsy in a Japanese patient with severe congenital neutropenia due to HAX1 deficiency.](#)  
59. Matsubara K, Imai K, Okada S, Miki M, Ishikawa N, Tsumura M, Kato T, Ohara O, Nonoyama S, Kobayashi M.  
Haematologica. 2007 Dec;92(12):e123-5.  
PMID: 18055975 [PubMed - indexed for MEDLINE] **Free Article**
- [Neutrophil elastase mutations and risk of leukaemia in severe congenital neutropenia.](#)  
60. Rosenberg PS, Alter BP, Link DC, Stein S, Rodger E, Bolyard AA, Aprikyan AA, Bonilla MA, Dror Y, Kannourakis G, Newburger PE, Boxer LA, Dale DC.  
Br J Haematol. 2008 Jan;140(2):210-3. Epub 2007 Nov 20.  
PMID: 18028488 [PubMed - indexed for MEDLINE]
- [Novel treatment for severe congenital neutropenia with pegfilgrastim.](#)  
61. Choi LM, Guelcher C, Guerrero MF.  
Blood. 2007 Dec 1;110(12):4134. No abstract available.  
PMID: 18024801 [PubMed - indexed for MEDLINE] **Free Article**
- [Expression of granule-associated proteins in neutrophils from patients with severe congenital neutropenia.](#)  
62. Andersson M, Karlsson J, Carlsson G, Pütsep K.  
Blood. 2007 Oct 1;110(7):2772-3; author reply 2773-4. No abstract available.  
PMID: 17881643 [PubMed - indexed for MEDLINE] **Free Article**
- [Gut overgrowth of vancomycin-resistant enterococci \(VRE\) results in linezolid-resistant mutation in a child with severe congenital neutropenia: a case report.](#)  
63. Verma N, Clarke RW, Bolton-Maggs PH, van Saene HK.  
J Pediatr Hematol Oncol. 2007 Aug;29(8):557-60.  
PMID: 17762497 [PubMed - indexed for MEDLINE]

64. [Mutations of the ELA2 gene found in patients with severe congenital neutropenia induce the unfolded protein response and cellular apoptosis.](#)  
Grenda DS, Murakami M, Ghatak J, Xia J, Boxer LA, Dale D, Dinauer MC, Link DC.  
Blood. 2007 Dec 15;110(13):4179-87. Epub 2007 Aug 30.  
PMID: 17761833 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
65. [Chromosomal aberrations in congenital bone marrow failure disorders--an early indicator for leukemogenesis?](#)  
Göhring G, Karow A, Steinemann D, Wilkens L, Lichter P, Zeidler C, Niemeyer C, Welte K, Schlegelberger B.  
Ann Hematol. 2007 Oct;86(10):733-9. Epub 2007 Jul 25.  
PMID: 17653548 [PubMed - indexed for MEDLINE]
66. [Non-myeloablative transplantation for severe congenital neutropenia.](#)  
Thachil J, Caswell M, Bolton-Maggs PH, Pizer B, Keenan R.  
Pediatr Blood Cancer. 2008 Apr;50(4):920-1.  
PMID: 17635003 [PubMed - indexed for MEDLINE]
67. [\[Chronic neutropenia - experience from the Department of Immunology, Children's Memorial Health Institute\].](#)  
Klaudel-Dreszler M, Pietrucha B, Skopczyńska H, Pac M, Kurenko-Deptuch M, Heropolitanska-Pliszka E, Wolska-Kusnier B, Maslanka K, Bernatowska E.  
Med Wieku Rozwoj. 2007 Apr-Jun;11(2 Pt 1):145-52. Polish.  
PMID: 17625284 [PubMed - indexed for MEDLINE]
68. [The clinical, immunohematological, and molecular study of Iranian patients with severe congenital neutropenia.](#)  
Rezaei N, Moin M, Pourpak Z, Ramyar A, Izadyar M, Chavoshzadeh Z, Sherkat R, Aghamohammadi A, Yeganeh M, Mahmoudi M, Mahjoub F, Germeshausen M, Grudzien M, Horwitz MS, Klein C, Farhoudi A.  
J Clin Immunol. 2007 Sep;27(5):525-33. Epub 2007 Jun 21.  
PMID: 17587155 [PubMed - indexed for MEDLINE]
69. [Distinct patterns of mutations occurring in de novo AML versus AML arising in the setting of severe congenital neutropenia.](#)  
Link DC, Kunter G, Kasai Y, Zhao Y, Miner T, McLellan MD, Ries RE, Kapur D, Nagarajan R, Dale DC, Bolyard AA, Boxer LA, Welte K, Zeidler C, Donadieu J, Bellanné-Chantelot C, Vardiman JW, Caligiuri MA, Bloomfield CD, DiPersio JF, Tomasson MH, Graubert TA, Westervelt P, Watson M, Shannon W, Baty J, Mardis ER, Wilson RK, Ley TJ.  
Blood. 2007 Sep 1;110(5):1648-55. Epub 2007 May 9.  
PMID: 17494858 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
70. [Double de novo mutations of ELA2 in cyclic and severe congenital neutropenia.](#)  
Salipante SJ, Benson KF, Luty J, Hadavi V, Kariminejad R, Kariminejad MH, Rezaei N, Horwitz MS.  
Hum Mutat. 2007 Sep;28(9):874-81.  
PMID: 17436313 [PubMed - indexed for MEDLINE]
71. [Low plasma levels of the protein pro-LL-37 as an early indication of severe disease in patients with chronic neutropenia.](#)  
Karlsson J, Carlsson G, Ramme KG, Hägglund H, Fadeel B, Nordenskjöld M, Henter JI, Palmblad J, Pütsep K, Andersson M.  
Br J Haematol. 2007 Apr;137(2):166-9.  
PMID: 17391497 [PubMed - indexed for MEDLINE]
72. [G-CSF treatment of severe congenital neutropenia reverses neutropenia but does not correct the underlying functional deficiency of the neutrophil in defending against microorganisms.](#)  
Donini M, Fontana S, Savoldi G, Vermi W, Tassone L, Gentili F, Zenaro E, Ferrari D, Notarangelo LD, Porta F, Facchetti F, Notarangelo LD, Dusi S, Badolato R.  
Blood. 2007 Jun 1;109(11):4716-23. Epub 2007 Feb 20.  
PMID: 17311988 [PubMed - indexed for MEDLINE] [Free Article](#)
73. [Molecular screening of the neutrophil elastase gene in congenital neutropenia.](#)  
Thomas M, Jayandharan G, Chandy M.  
Indian Pediatr. 2006 Dec;43(12):1081-4.  
PMID: 17202606 [PubMed - indexed for MEDLINE] [Free Article](#)
74. [Assignment of the gene locus for severe congenital neutropenia to chromosome 1q22 in the original Kostmann family from Northern Sweden.](#)  
Melin M, Entesarian M, Carlsson G, Garwicz D, Klein C, Fadeel B, Nordenskjöld M, Palmblad J, Henter JI, Dahl N.  
Biochem Biophys Res Commun. 2007 Feb 16;353(3):571-5. Epub 2006 Dec 20.  
PMID: 17188649 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
75. [HAX1 deficiency causes autosomal recessive severe congenital neutropenia \(Kostmann disease\).](#)  
Klein C, Grudzien M, Appaswamy G, Germeshausen M, Sandrock I, Schäffer AA, Rathinam C, Boztug K, Schwinger B, Rezaei N, Bohn G, Melin M, Carlsson G, Fadeel B, Dahl N, Palmblad J, Henter JI, Zeidler C, Grimbacher B, Welte K.  
Nat Genet. 2007 Jan;39(1):86-92. Epub 2006 Dec 24.  
PMID: 17187068 [PubMed - indexed for MEDLINE]

- ["Hair-on-end" skull induced by long-term G-CSF treatment in severe congenital neutropenia.](#)
- 76. Albert MH, Notheis G, Wintergerst U, Born C, Schneider K.  
Pediatr Radiol. 2007 Feb;37(2):221-4. Epub 2006 Dec 21.  
PMID: 17186232 [PubMed - indexed for MEDLINE]
- [Kostmann syndrome or infantile genetic agranulocytosis, part one: celebrating 50 years of clinical and basic research on severe congenital neutropenia.](#)
- 77. Carlsson G, Andersson M, Pütsep K, Garwicz D, Nordenskjöld M, Henter JI, Palmblad J, Fadeel B.  
Acta Paediatr. 2006 Dec;95(12):1526-32.  
PMID: 17129957 [PubMed - indexed for MEDLINE]
- [Stage specific gene expression of serpins and their cognate proteases during myeloid differentiation.](#)
- 78. Missen MA, Haylock D, Whitty G, Medcalf RL, Coughlin PB.  
Br J Haematol. 2006 Dec;135(5):715-24.  
PMID: 17107353 [PubMed - indexed for MEDLINE]
- [LEF-1 is crucial for neutrophil granulocytopoiesis and its expression is severely reduced in congenital neutropenia.](#)
- 79. Skokowa J, Cario G, Uenal M, Schambach A, Germeshausen M, Battmer K, Zeidler C, Lehmann U, Eder M, Baum C, Grosschedl R, Stanulla M, Scherr M, Welte K.  
Nat Med. 2006 Oct;12(10):1191-7. Epub 2006 Sep 24. Erratum in: Nat Med. 2006 Nov;12(11):1329.  
PMID: 17063141 [PubMed - indexed for MEDLINE]
- [Incidence of CSF3R mutations in severe congenital neutropenia and relevance for leukemogenesis: Results of a long-term survey.](#)
- 80. Germeshausen M, Ballmaier M, Welte K.  
Blood. 2007 Jan 1;109(1):93-9. Epub 2006 Sep 19.  
PMID: 16985178 [PubMed - indexed for MEDLINE] **Free Article**
- [Successful stem cell transplantation in an infant with severe congenital neutropenia complicated by pretransplant inflammatory pseudotumor of the liver.](#)
- 81. Cojean N, Blondet C, Marcellin L, Entz-Werlé N, Babin A, Constantinesco A, Lutz P.  
Bone Marrow Transplant. 2006 Nov;38(9):641-3. Epub 2006 Sep 18. No abstract available.  
PMID: 16980993 [PubMed - indexed for MEDLINE]
- [Granulocyte colony-stimulating factor preferentially stimulates proliferation of monosomy 7 cells bearing the isoform IV receptor.](#)
- 82. Sloand EM, Yong AS, Ramkissoon S, Solomou E, Bruno TC, Kim S, Fuhrer M, Kajigaya S, Barrett AJ, Young NS.  
Proc Natl Acad Sci U S A. 2006 Sep 26;103(39):14483-8. Epub 2006 Sep 15.  
PMID: 16980411 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Malignant myeloid transformation in a child with severe congenital neutropenia \(Kostmann's syndrome\).](#)
- 83. Chong LA, Josephine P, Ariffin H.  
Med J Malaysia. 2006 Jun;61(2):236-8.  
PMID: 16898320 [PubMed - indexed for MEDLINE]
- [A family of severe congenital neutropenia with -199C to A substitution in ELA2 promoter.](#)
- 84. Matsushita H, Asai S, Komiya S, Inoue H, Yabe H, Miyachi H.  
Am J Hematol. 2006 Dec;81(12):985-6. No abstract available.  
PMID: 16795059 [PubMed - indexed for MEDLINE]
- [Recurrent epididymo-orchitis in an 8-year-old child with Kostmann syndrome \(severe congenital neutropenia\).](#)
- 85. Celik U, Alabaz D, Kocabas E, Leblebisatan G.  
Ann Trop Paediatr. 2006 Jun;26(2):153-4.  
PMID: 16709337 [PubMed - indexed for MEDLINE]
- [Osteoporosis in children with severe congenital neutropenia: bone mineral density and treatment with bisphosphonates.](#)
- 86. Borzutzky A, Reyes ML, Figueroa V, García C, Cavieres M.  
J Pediatr Hematol Oncol. 2006 Apr;28(4):205-9.  
PMID: 16679916 [PubMed - indexed for MEDLINE]
- [Neutrophil elastase and granulocyte colony-stimulating factor receptor mutation analyses and leukemia evolution in severe congenital neutropenia patients belonging to the original Kostmann family in northern Sweden.](#)
- 87. Carlsson G, Aprikyan AA, Ericson KG, Stein S, Makaryan V, Dale DC, Nordenskjöld M, Fadeel B, Palmblad J, Hentera JI.  
Haematologica. 2006 May;91(5):589-95.  
PMID: 16670064 [PubMed - indexed for MEDLINE] **Free Article**
- [Periodontal disease in patients from the original Kostmann family with severe congenital neutropenia.](#)
- 88. Carlsson G, Wahlin YB, Johansson A, Olsson A, Eriksson T, Claesson R, Hånström L, Henter JI.  
J Periodontol. 2006 Apr;77(4):744-51.  
PMID: 16584360 [PubMed - indexed for MEDLINE]

89. [Mutations in neutrophil elastase causing congenital neutropenia lead to cytoplasmic protein accumulation and induction of the unfolded protein response.](#)  
Köllner I, Sodeik B, Schreek S, Heyn H, von Neuhoff N, Germeshausen M, Zeidler C, Krüger M, Schlegelberger B, Welte K, Beger C. *Blood*. 2006 Jul 15;108(2):493-500. Epub 2006 Mar 21.  
PMID: 16551967 [PubMed - indexed for MEDLINE] **Free Article**
90. [The incidence of leukemia and mortality from sepsis in patients with severe congenital neutropenia receiving long-term G-CSF therapy.](#)  
Rosenberg PS, Alter BP, Bolyard AA, Bonilla MA, Boxer LA, Cham B, Fier C, Freedman M, Kannourakis G, Kinsey S, Schwinger B, Zeidler C, Welte K, Dale DC; Severe Chronic Neutropenia International Registry. *Blood*. 2006 Jun 15;107(12):4628-35. Epub 2006 Feb 23.  
PMID: 16497969 [PubMed - indexed for MEDLINE] **Free PMC Article**
91. [Detection and quantification of herpesviruses in Kostmann syndrome periodontitis using real-time polymerase chain reaction: a case report.](#)  
Yildirim S, Yapar M, Kubar A. *Oral Microbiol Immunol*. 2006 Apr;21(2):73-8.  
PMID: 16476015 [PubMed - indexed for MEDLINE]
92. [A novel mutation in the juxtamembrane intracellular sequence of the granulocyte colony-stimulating factor \(G-CSF\) receptor gene in a patient with severe congenital neutropenia augments G-CSF proliferation activity but not through the MAP kinase cascade.](#)  
Yokoyama T, Okamura S, Asano Y, Kamezaki K, Numata A, Kakumitsu H, Shide K, Nakashima H, Taisuke K, Sekine Y, Mizuno Y, Okamura J, Matsuda T, Harada M, Yoshiyuki N, Shimoda K. *Int J Hematol*. 2005 Jul;82(1):28-34.  
PMID: 16229088 [PubMed - indexed for MEDLINE]
93. [A comparison of the defective granulopoiesis in childhood cyclic neutropenia and in severe congenital neutropenia.](#)  
Sera Y, Kawaguchi H, Nakamura K, Sato T, Habara M, Okada S, Ishikawa N, Kojima S, Katoh O, Kobayashi M. *Haematologica*. 2005 Aug;90(8):1032-41.  
PMID: 16079102 [PubMed - indexed for MEDLINE] **Free Article**
94. [A comparison of cyclic neutropenia in childhood and severe congenital neutropenia.](#)  
Grenda D, Link DC. *Haematologica*. 2005 Aug;90(8):1010A. No abstract available.  
PMID: 16079089 [PubMed - indexed for MEDLINE]
95. [Periodontal status in two siblings with severe congenital neutropenia: diagnosis and mutational analysis of the cases.](#)  
Hakki SS, Aprikyan AA, Yildirim S, Aydinbelge M, Gokalp A, Ucar C, Guran S, Koseoglu V, Ataoglu T, Somerman MJ. *J Periodontol*. 2005 May;76(5):837-44.  
PMID: 15898946 [PubMed - indexed for MEDLINE]
96. [Neutropenia in Iranian patients with primary immunodeficiency disorders.](#)  
Rezaei N, Farhodi A, Pourpak Z, Aghamohammadi A, Moin M, Movahedi M, Gharagozlou M. *Haematologica*. 2005 Apr;90(4):554-6.  
PMID: 15820955 [PubMed - indexed for MEDLINE] **Free Article**
97. [Heterogeneous expression pattern of pro- and anti-apoptotic factors in myeloid progenitor cells of patients with severe congenital neutropenia treated with granulocyte colony-stimulating factor.](#)  
Cario G, Skokowa J, Wang Z, Bucan V, Zeidler C, Stanulla M, Schrappe M, Welte K. *Br J Haematol*. 2005 Apr;129(2):275-8.  
PMID: 15813856 [PubMed - indexed for MEDLINE]
98. [Aberrant subcellular targeting of the G185R neutrophil elastase mutant associated with severe congenital neutropenia induces premature apoptosis of differentiating promyelocytes.](#)  
Massullo P, Druhan LJ, Bunnell BA, Hunter MG, Robinson JM, Marsh CB, Avalos BR. *Blood*. 2005 May 1;105(9):3397-404. Epub 2005 Jan 18.  
PMID: 15657182 [PubMed - indexed for MEDLINE] **Free PMC Article**
99. [Association of chronic symptomatic neutropenia with the triple A syndrome.](#)  
Spiegel R, Shalev S, Huebner A, Horovitz Y. *J Pediatr Hematol Oncol*. 2005 Jan;27(1):53-5.  
PMID: 15654281 [PubMed - indexed for MEDLINE]
100. [Analysis of risk factors for myelodysplasias, leukemias and death from infection among patients with congenital neutropenia. Experience of the French Severe Chronic Neutropenia Study Group.](#)  
Donadieu J, Leblanc T, Bader Meunier B, Barkaoui M, Fenneteau O, Bertrand Y, Maier-Redelsperger M, Micheau M, Stephan JL, Phillippe N, Bordigoni P, Babin-Boilletot A, Bensaid P, Manel AM, Vilmer E, Thuret I, Blanche S, Gluckman E, Fischer A, Mechinaud F, Joly B, Lamy T, Hermine O, Cassinat B, Bellanné-Chantelot C, Chomienne C; French Severe Chronic Neutropenia Study Group. *Haematologica*. 2005 Jan;90(1):45-53.  
PMID: 15642668 [PubMed - indexed for MEDLINE] **Free Article**

- [Stem cell transplantation in patients with severe congenital neutropenia with evidence of leukemic transformation.](#)  
101. Choi SW, Boxer LA, Pulsipher MA, Roulston D, Hutchinson RJ, Yanik GA, Cooke KR, Ferrara JL, Levine JE.  
Bone Marrow Transplant. 2005 Mar;35(5):473-7.  
PMID: 15640815 [PubMed - indexed for MEDLINE]
- [Clostridium septicum myonecrosis in congenital neutropenia.](#)  
102. Barnes C, Gerstle JT, Freedman MH, Carcao MD.  
Pediatrics. 2004 Dec;114(6):e757-60.  
PMID: 15574607 [PubMed - indexed for MEDLINE] **Free Article**
- [Hematopoietic stem cell transplantation in severe congenital neutropenia: experience of the French SCN register.](#)  
103. Ferry C, Ouachée M, Leblanc T, Michel G, Notz-Carrère A, Tabrizi R, Flood T, Lutz P, Fischer A, Gluckman E, Donadieu J.  
Bone Marrow Transplant. 2005 Jan;35(1):45-50.  
PMID: 15489867 [PubMed - indexed for MEDLINE]
- [Loss of SHIP and CIS recruitment to the granulocyte colony-stimulating factor receptor contribute to hyperproliferative responses in severe congenital neutropenia/acute myelogenous leukemia.](#)  
104. Hunter MG, Jacob A, O'donnell LC, Agler A, Druhan LJ, Coggeshall KM, Avalos BR.  
J Immunol. 2004 Oct 15;173(8):5036-45.  
PMID: 15470047 [PubMed - indexed for MEDLINE] **Free Article**
- [Novel mechanism of G-CSF refractoriness in patients with severe congenital neutropenia.](#)  
105. Druhan LJ, Ai J, Massullo P, Kindwall-Keller T, Ranalli MA, Avalos BR.  
Blood. 2005 Jan 15;105(2):584-91. Epub 2004 Sep 7.  
PMID: 15353486 [PubMed - indexed for MEDLINE] **Free Article**
- [Screening for G-CSF receptor mutations in patients with secondary myeloid or lymphoid transformation of severe congenital neutropenia. A report from the French neutropenia register.](#)  
106. Cassinat B, Bellanné-Chantelot C, Notz-Carrère A, Menot ML, Vaury C, Micheau M, Bader-Meunier B, Perel Y, Leblanc T, Donadieu J, Chomienne C.  
Leukemia. 2004 Sep;18(9):1553-5. No abstract available.  
PMID: 15284863 [PubMed - indexed for MEDLINE]
- [Efficacy and safety of two different rG-CSF preparations in the treatment of patients with severe congenital neutropenia.](#)  
107. Carlsson G, Ahlin A, Dahllöf G, Elinder G, Henter JI, Palmblad J.  
Br J Haematol. 2004 Jul;126(1):127-32.  
PMID: 15198743 [PubMed - indexed for MEDLINE]
- [Umbilical cord blood stem cell transplantation from unrelated HLA-matched donor in an infant with severe congenital neutropenia.](#)  
108. Mino E, Kobayashi R, Yoshida M, Suzuki Y, Yamada M, Kobayashi K.  
Bone Marrow Transplant. 2004 May;33(9):969-71.  
PMID: 15004540 [PubMed - indexed for MEDLINE]
- [Mutations in the ELA2 gene correlate with more severe expression of neutropenia: a study of 81 patients from the French Neutropenia Register.](#)  
109. Bellanné-Chantelot C, Clauin S, Leblanc T, Cassinat B, Rodrigues-Lima F, Beaufile S, Vaury C, Barkaoui M, Fenneteau O, Maier-Redelsperger M, Chomienne C, Donadieu J.  
Blood. 2004 Jun 1;103(11):4119-25. Epub 2004 Feb 12.  
PMID: 14962902 [PubMed - indexed for MEDLINE] **Free Article**
- [A novel termination codon mutation of the WAS gene in a Thai family with Wiskott-Aldrich syndrome.](#)  
110. Chatchatee P, Srichomthong C, Chewatavorn A, Shotelersuk V.  
Int J Mol Med. 2003 Dec;12(6):939-41.  
PMID: 14612970 [PubMed - indexed for MEDLINE]
- [Mutations associated with neutropenia in dogs and humans disrupt intracellular transport of neutrophil elastase.](#)  
111. Benson KF, Li FQ, Person RE, Albani D, Duan Z, Wechsler J, Meade-White K, Williams K, Acland GM, Niemeyer G, Lothrop CD, Horwitz M.  
Nat Genet. 2003 Sep;35(1):90-6. Epub 2003 Aug 3.  
PMID: 12897784 [PubMed - indexed for MEDLINE]
- [Cellular and molecular abnormalities in severe congenital neutropenia predisposing to leukemia.](#)  
112. Aprikyan AA, Kutyavin T, Stein S, Aprikian P, Rodger E, Liles WC, Boxer LA, Dale DC.  
Exp Hematol. 2003 May;31(5):372-81. Erratum in: Exp Hematol. 2006 Dec;34(12):1771-2.  
PMID: 12763135 [PubMed - indexed for MEDLINE]
- [The relationship between periodontal status and peripheral levels of neutrophils in two consanguineous siblings with severe congenital neutropenia: case reports.](#)  
113. Tözüm TF, Berker E, Ersoy F, Tezcan I, Sanal O.  
Quintessence Int. 2003 Mar;34(3):221-6.  
PMID: 12731605 [PubMed - indexed for MEDLINE]

- 114. [Long-term follow-up of granulocyte colony-stimulating factor receptor mutations in patients with severe congenital neutropenia: implications for leukaemogenesis and therapy.](#)  
Ancliff PJ, Gale RE, Liesner R, Hann I, Linch DC.  
Br J Haematol. 2003 Feb;120(4):685-90.  
PMID: 12588357 [PubMed - indexed for MEDLINE]
- 115. [Kostmann disease--infantile genetic agranulocytosis: historical views and new aspects.](#)  
Zetterström R.  
Acta Paediatr. 2002;91(12):1279-81.  
PMID: 12578276 [PubMed - indexed for MEDLINE]
- 116. [Dysregulation of transcriptions in primary granule constituents during myeloid proliferation and differentiation in patients with severe congenital neutropenia.](#)  
Kawaguchi H, Kobayashi M, Nakamura K, Konishi N, Miyagawa S, Sato T, Toyoda H, Komada Y, Kojima S, Todoroki Y, Ueda K, Katoh O.  
J Leukoc Biol. 2003 Feb;73(2):225-34.  
PMID: 12554799 [PubMed - indexed for MEDLINE] **Free Article**
- 117. [Familial severe congenital neutropenia associated with infantile osteoporosis: a new entity.](#)  
Elhasid R, Hofbauer LC, Ish-Shalom S, Ben-Arush M, Koc O, Rowe JM, Etzioni A.  
Am J Hematol. 2003 Jan;72(1):34-7.  
PMID: 12508266 [PubMed - indexed for MEDLINE]
- 118. [Using fluorescence-activated cell sorting followed by fluorescence in situ hybridization to study lineage relationships: the 8;21 translocation is present in neutrophils but not monocytes in a patient with severe congenital neutropenia and a granulocyte colony-stimulating factor-responsive clonal abnormality.](#)  
White C, Chen Z, Raetz E, Pulsipher M, Spangrude GJ, Slayton WB.  
Acta Paediatr Suppl. 2002;91(438):120-3.  
PMID: 12477275 [PubMed - indexed for MEDLINE]
- 119. [Deficiency of antibacterial peptides in patients with morbus Kostmann: an observation study.](#)  
Pütsep K, Carlsson G, Boman HG, Andersson M.  
Lancet. 2002 Oct 12;360(9340):1144-9.  
PMID: 12387964 [PubMed - indexed for MEDLINE]
- 120. [Possibility of somatic mosaicism of ELA2 mutation overlooked in an asymptomatic father transmitting severe congenital neutropenia to two offspring.](#)  
Benson KF, Horwitz M.  
Br J Haematol. 2002 Sep;118(3):923; author reply 923-4. No abstract available.  
PMID: 12181069 [PubMed - indexed for MEDLINE]
- 121. [Paternal mosaicism proves the pathogenic nature of mutations in neutrophil elastase in severe congenital neutropenia.](#)  
Ancliff PJ, Gale RE, Watts MJ, Liesner R, Hann IM, Strobel S, Linch DC.  
Blood. 2002 Jul 15;100(2):707-9.  
PMID: 12091371 [PubMed - indexed for MEDLINE] **Free Article**
- 122. [MPGN type I induced by granulocyte colony stimulating factor.](#)  
Magen D, Mandel H, Berant M, Ben-Izhak O, Zelikovic I.  
Pediatr Nephrol. 2002 May;17(5):370-2.  
PMID: 12042897 [PubMed - indexed for MEDLINE]
- 123. [Assessment of bone marrow stem cell reserve and function and stromal cell function in patients with severe congenital neutropenia.](#)  
Papadaki HA, Gibson FM, Psyllaki M, Gordon-Smith EC, Marsh JC, Eliopoulos GD.  
Eur J Haematol. 2001 Oct;67(4):245-51.  
PMID: 11860446 [PubMed - indexed for MEDLINE]
- 124. [Acute coalescent mastoiditis and acoustic sequelae in an infant with severe congenital neutropenia.](#)  
Matsubara K, Omori K, Baba K.  
Int J Pediatr Otorhinolaryngol. 2002 Jan 11;62(1):63-7.  
PMID: 11738697 [PubMed - indexed for MEDLINE]
- 125. [The carboxyl terminus of the granulocyte colony-stimulating factor receptor, truncated in patients with severe congenital neutropenia/acute myeloid leukemia, is required for SH2-containing phosphatase-1 suppression of Stat activation.](#)  
Dong F, Qiu Y, Yi T, Touw IP, Larner AC.  
J Immunol. 2001 Dec 1;167(11):6447-52.  
PMID: 11714811 [PubMed - indexed for MEDLINE] **Free Article**
- 126. [Mutations in the ELA2 gene encoding neutrophil elastase are present in most patients with sporadic severe congenital neutropenia but only in some patients with the familial form of the disease.](#)  
Ancliff PJ, Gale RE, Liesner R, Hann IM, Linch DC.  
Blood. 2001 Nov 1;98(9):2645-50.  
PMID: 11675333 [PubMed - indexed for MEDLINE] **Free Article**



127. [Successful unrelated BMT in a patient with Kostmann syndrome complicated by pre-transplant pulmonary 'bacterial' abscesses.](#)  
Toyoda H, Azuma E, Hori H, Hirayama M, Kobayashi M, Isogai K, Kondo N, Komada Y.  
Bone Marrow Transplant. 2001 Aug;28(4):413-5.  
PMID: 11571517 [PubMed - indexed for MEDLINE] **Free Article**
128. [Usefulness of bronchoalveolar lavage for the diagnosis and treatment of refractory pneumonia in a patient with Kostmann syndrome, a severe congenital neutropenia.](#)  
Chiba T, Hayakawa J, Ueda T, Migita M, Maeda M, Imai T, Takase M, Hida M, Fukunaga Y.  
J Nippon Med Sch. 2001 Aug;68(4):340-3.  
PMID: 11505282 [PubMed - indexed for MEDLINE] **Free Article**
129. [Trisomy 21 and isodicentric chromosome 21 in Kostmann syndrome following treatment with G-CSF.](#)  
Roland B, Woodman RC, Jorgenson K, Pinto A.  
Cancer Genet Cytogenet. 2001 Apr 1;126(1):78-80.  
PMID: 11343785 [PubMed - indexed for MEDLINE]
130. [Granulocyte colony-stimulating factor receptor mutations in a patient with acute lymphoblastic leukemia secondary to severe congenital neutropenia.](#)  
Germeshausen M, Ballmaier M, Schulze H, Welte K, Flohr T, Beiske K, Storm-Mathisen I, Abrahamsen TG.  
Blood. 2001 Feb 1;97(3):829-30. No abstract available.  
PMID: 11227095 [PubMed - indexed for MEDLINE] **Free Article**
131. [Absence of mutations in the granulocyte colony-stimulating factor \(G-CSF\) receptor gene in patients with myelodysplastic syndrome/acute myeloblastic leukaemia occurring after treatment of aplastic anaemia with G-CSF.](#)  
Kudo K, Nagai H, Numata S, Ichihara M, Kinoshita T, Horibe K, Kato K, Matsuyama T, Kodera Y, Kojima S.  
Br J Haematol. 2000 Nov;111(2):656-8.  
PMID: 11122117 [PubMed - indexed for MEDLINE]
132. [A new exon 9 glucose-6-phosphate dehydrogenase mutation \(G6PD "Rehovot"\) in a Jewish Ethiopian family with variable phenotypes.](#)  
Iancovici-Kidon M, Sthoeger D, Abrahamov A, Wolach B, Beutler E, Gelbart T, Barak Y.  
Blood Cells Mol Dis. 2000 Dec;26(6):567-71. Erratum in: Blood Cells Mol Dis 2001 Jan-Feb;27(1):351. Volach B [corrected to Wolach B].  
PMID: 11112389 [PubMed - indexed for MEDLINE]
133. [Abnormalities of primitive myeloid progenitor cells expressing granulocyte colony-stimulating factor receptor in patients with severe congenital neutropenia.](#)  
Nakamura K, Kobayashi M, Konishi N, Kawaguchi H, Miyagawa S, Sato T, Toyoda H, Komada Y, Kojima S, Katoh O, Ueda K.  
Blood. 2000 Dec 15;96(13):4366-9.  
PMID: 11110716 [PubMed - indexed for MEDLINE] **Free Article**
134. [Spontaneous remission of granulocyte colony-stimulating factor-associated leukemia in a child with severe congenital neutropenia.](#)  
Jeha S, Chan KW, Aprikyan AG, Hoots WK, Culbert S, Zietz H, Dale DC, Albitar M.  
Blood. 2000 Nov 15;96(10):3647-9.  
PMID: 11071667 [PubMed - indexed for MEDLINE] **Free Article**
135. [Mutations in the gene encoding neutrophil elastase in congenital and cyclic neutropenia.](#)  
Dale DC, Person RE, Bolyard AA, Aprikyan AG, Bos C, Bonilla MA, Boxer LA, Kannourakis G, Zeidler C, Welte K, Benson KF, Horwitz M.  
Blood. 2000 Oct 1;96(7):2317-22.  
PMID: 11001877 [PubMed - indexed for MEDLINE] **Free Article**
136. [Complication of rapidly progressive glomerulonephritis in severe congenital neutropenia treated with long-term granulocyte colony-stimulating factor \(filgrastim\).](#)  
Sotomatsu M, Kanazawa T, Ogawa C, Watanabe T, Morikawa A.  
Br J Haematol. 2000 Jul;110(1):234-5. No abstract available.  
PMID: 10931006 [PubMed - indexed for MEDLINE]
137. [Thrombopoietin enhances neutrophil production by bone marrow hematopoietic progenitors with the aid of stem cell factor in congenital neutropenia.](#)  
Sawai N, Koike K, Mwamtemi HH, Ito S, Kurokawa Y, Sakashita K, Kinoshita T, Higuchi T, Takeuchi K, Shiohara M, Kamijo T, Higuchi Y, Miyazaki H, Kato T, Kobayashi M, Miyake M, Yasui K, Komiyama A.  
J Leukoc Biol. 2000 Jul;68(1):137-43.  
PMID: 10914501 [PubMed - indexed for MEDLINE] **Free Article**
138. [Serum granulocyte colony-stimulating factor levels are not increased in patients with autoimmune neutropenia of infancy.](#)  
Corbacioglu S, Bux J, König A, Gabrilove JL, Welte K, Bussel JB.  
J Pediatr. 2000 Jul;137(1):96-9.  
PMID: 10891829 [PubMed - indexed for MEDLINE]

139. [Differential expression and regulation of GTPases \(RhoA and Rac2\) and GDIs \(LyGDI and RhoGDI\) in neutrophils from patients with severe congenital neutropenia.](#)  
Kasper B, Tidow N, Grothues D, Welte K.  
Blood. 2000 May 1;95(9):2947-53.  
PMID: 10779444 [PubMed - indexed for MEDLINE] **Free Article**
140. [Stem cell transplantation in patients with severe congenital neutropenia without evidence of leukemic transformation.](#)  
Zeidler C, Welte K, Barak Y, Barriga F, Bolyard AA, Boxer L, Cornu G, Cowan MJ, Dale DC, Flood T, Freedman M, Gadner H, Mandel H, O'Reilly RJ, Ramenghi U, Reiter A, Skinner R, Vermlyen C, Levine JE.  
Blood. 2000 Feb 15;95(4):1195-8.  
PMID: 10666190 [PubMed - indexed for MEDLINE] **Free Article**
141. [Association of src-kinase Lyn and non-src-kinase Syk with the granulocyte colony-stimulating factor receptor \(G-CSFR\) is not abrogated in neutrophils from severe congenital neutropenia patients with point mutations in the G-CSFR mRNA.](#)  
Kasper B, Tidow N, Welte K.  
Int J Hematol. 1999 Dec;70(4):241-7.  
PMID: 10643150 [PubMed - indexed for MEDLINE]
142. [Alkaline phosphatase activity in neutrophils from patients with severe congenital neutropenia \(Kostmann's syndrome\).](#)  
Baranova K, Stanulla M, Zeidler C, Welte K.  
Int J Hematol. 1999 Dec;70(4):236-40.  
PMID: 10643149 [PubMed - indexed for MEDLINE]
143. [Structural abnormalities in the G-CSF receptor in severe congenital neutropenia.](#)  
Deshpande RV, Lalezari P, Pergolizzi RG, Moore MA.  
J Hematother Stem Cell Res. 1999 Aug;8(4):411-20.  
PMID: 10634179 [PubMed - indexed for MEDLINE]
144. [Defective proliferation of primitive myeloid progenitor cells in patients with severe congenital neutropenia.](#)  
Konishi N, Kobayashi M, Miyagawa S, Sato T, Katoh O, Ueda K.  
Blood. 1999 Dec 15;94(12):4077-83.  
PMID: 10590052 [PubMed - indexed for MEDLINE] **Free Article**
145. [Novel point mutation in the extracellular domain of the granulocyte colony-stimulating factor \(G-CSF\) receptor in a case of severe congenital neutropenia hyporesponsive to G-CSF treatment.](#)  
Ward AC, van Aesch YM, Gits J, Schelen AM, de Koning JP, van Leeuwen D, Freedman MH, Touw IP.  
J Exp Med. 1999 Aug 16;190(4):497-507.  
PMID: 10449521 [PubMed - indexed for MEDLINE] **Free PMC Article**
146. [SH2-containing protein tyrosine phosphatases SHP-1 and SHP-2 are dramatically increased at the protein level in neutrophils from patients with severe congenital neutropenia \(Kostmann's syndrome\).](#)  
Tidow N, Kasper B, Welte K.  
Exp Hematol. 1999 Jun;27(6):1038-45.  
PMID: 10378893 [PubMed - indexed for MEDLINE]
147. [G-CSF receptor mutations in patients with severe congenital neutropenia do not abrogate Jak2 activation and stat1/stat3 translocation.](#)  
Herbst A, Koester M, Wirth D, Hauser H, Welte K.  
Ann N Y Acad Sci. 1999 Apr 30;872:320-5; discussion 325-7.  
PMID: 10372134 [PubMed - indexed for MEDLINE]
148. [Serum granulocyte colony-stimulating factor levels in patients with chronic neutropenia of childhood: modulation of G-CSF levels by myeloid precursor cell mass.](#)  
Kobayashi M, Ueda K, Kojima S, Nishihira H, Ishiguro A, Shimbo T, Nakahata T.  
Br J Haematol. 1999 May;105(2):486-90.  
PMID: 10233425 [PubMed - indexed for MEDLINE]
149. [Deletion of a critical internalization domain in the G-CSFR in acute myelogenous leukemia preceded by severe congenital neutropenia.](#)  
Hunter MG, Avalos BR.  
Blood. 1999 Jan 15;93(2):440-6.  
PMID: 9885205 [PubMed - indexed for MEDLINE] **Free Article**
150. [Mutations of the granulocyte-colony stimulating factor receptor in patients with severe congenital neutropenia are not required for transformation to acute myeloid leukaemia and may be a bystander phenomenon.](#)  
Bernard T, Gale RE, Evans JP, Linch DC.  
Br J Haematol. 1998 Apr;101(1):141-9.  
PMID: 9576194 [PubMed - indexed for MEDLINE]



- [Severe congenital neutropenia: a case study.](#)
- 151. Parker LA.  
Neonatal Netw. 1997 Dec;16(8):17-21.  
PMID: 9429449 [PubMed - indexed for MEDLINE]
- [High incidence of significant bone loss in patients with severe congenital neutropenia \(Kostmann's syndrome\).](#)
- 152. Yakisan E, Schirg E, Zeidler C, Bishop NJ, Reiter A, Hirt A, Riehm H, Welte K.  
J Pediatr. 1997 Oct;131(4):592-7.  
PMID: 9386665 [PubMed - indexed for MEDLINE]
- [Severe congenital neutropenia patients with point mutations in the granulocyte colony-stimulating factor \(G-CSF\) receptor mRNA express a normal G-CSF receptor protein.](#)
- 153. Kasper B, Herbst A, Pilz C, Germeshausen M, Tidow N, Hadam MR, Welte K.  
Blood. 1997 Oct 1;90(7):2839-41. No abstract available.  
PMID: 9326253 [PubMed - indexed for MEDLINE] **Free Article**
- [Rarity of dominant-negative mutations of the G-CSF receptor in patients with blast crisis of chronic myeloid leukemia or de novo acute leukemia.](#)
- 154. Carapeti M, Soede-Bobok A, Hochhaus A, Sill H, Touw IP, Goldman JM, Cross NC.  
Leukemia. 1997 Jul;11(7):1005-8.  
PMID: 9204982 [PubMed - indexed for MEDLINE]
- [Bone mineralization and turnover in children with congenital neutropenia, and its relationship to treatment with recombinant human granulocyte-colony stimulating factor.](#)
- 155. Fewtrell MS, Kinsey SE, Williams DM, Bishop NJ.  
Br J Haematol. 1997 Jun;97(4):734-6.  
PMID: 9217170 [PubMed - indexed for MEDLINE]
- [Clinical relevance of point mutations in the cytoplasmic domain of the granulocyte colony-stimulating factor receptor gene in patients with severe congenital neutropenia.](#)
- 156. Tidow N, Pilz C, Teichmann B, Müller-Brechlin A, Germeshausen M, Kasper B, Rauprich P, Sykora KW, Welte K.  
Blood. 1997 Apr 1;89(7):2369-75.  
PMID: 9116280 [PubMed - indexed for MEDLINE] **Free Article**
- [Frequency of point mutations in the gene for the G-CSF receptor in patients with chronic neutropenia undergoing G-CSF therapy.](#)
- 157. Tidow N, Pilz C, Kasper B, Welte K.  
Stem Cells. 1997;15 Suppl 1:113-9; discussion 120.  
PMID: 9368331 [PubMed - indexed for MEDLINE] **Free Article**
- [Cytosolic proteins from neutrophilic granulocytes: a comparison between patients with severe chronic neutropenia and healthy donors.](#)
- 158. Kasper B, Thole HH, Patterson SD, Welte K.  
Electrophoresis. 1997 Jan;18(1):142-9.  
PMID: 9059836 [PubMed - indexed for MEDLINE]
- [Mutations in the granulocyte colony-stimulating factor receptor gene in patients with severe congenital neutropenia.](#)
- 159. Dong F, Dale DC, Bonilla MA, Freedman M, Fasth A, Neijens HJ, Palmblad J, Briars GL, Carlsson G, Veerman AJ, Welte K, Löwenberg B, Touw IP.  
Leukemia. 1997 Jan;11(1):120-5.  
PMID: 9001427 [PubMed - indexed for MEDLINE]
- [Acute monocytic leukemia in a patient with severe congenital neutropenia after treatment with recombinant human granulocyte colony-stimulating factor.](#)
- 160. Nibu K, Yanai F, Hirota O, Hatazoe M, Yamaguchi S, Akamatsu M, Kikuchi M, Morimoto Y, Kuwano A.  
J Pediatr Hematol Oncol. 1996 Nov;18(4):422-4. No abstract available.  
PMID: 8888760 [PubMed - indexed for MEDLINE]
- [Dominantly inherited severe congenital neutropenia.](#)
- 161. Briars GL, Parry HF, Ansari BM.  
J Infect. 1996 Sep;33(2):123-6.  
PMID: 8890001 [PubMed - indexed for MEDLINE]
- [Osteoporosis in severe congenital neutropenia: inherent to the disease or a sequela of G-CSF treatment?](#)
- 162. Simon M, Lengfelder E, Reiter S, Hehlmann R.  
Am J Hematol. 1996 Jun;52(2):127. No abstract available.  
PMID: 8638643 [PubMed - indexed for MEDLINE]
- [Coalescent mastoiditis in a child with severe congenital neutropenia. Report of a case.](#)
- 163. Jaklis A, Tohme S.  
J Med Liban. 1996;44(2):96-9.  
PMID: 9057443 [PubMed - indexed for MEDLINE]

164. [An abnormal clone with monosomy 7 and trisomy 21 in the bone marrow of a child with congenital agranulocytosis \(Kostmann disease\) treated with granulocyte colony-stimulating factor. Evolution towards myelodysplastic syndrome and acute basophilic leukemia.](#)  
Shekhter-Levin S, Penchansky L, Wollman MR, Sherer ME, Wald N, Gollin SM.  
Cancer Genet Cytogenet. 1995 Oct 15;84(2):99-104.  
PMID: 8536230 [PubMed - indexed for MEDLINE]
165. [Mutations in the gene for the granulocyte colony-stimulating-factor receptor in patients with acute myeloid leukemia preceded by severe congenital neutropenia.](#)  
Dong F, Brynes RK, Tidow N, Welte K, Löwenberg B, Touw IP.  
N Engl J Med. 1995 Aug 24;333(8):487-93.  
PMID: 7542747 [PubMed - indexed for MEDLINE] **Free Article**
166. [Osteoporosis in severe congenital neutropenia treated with granulocyte colony-stimulating factor.](#)  
Bishop NJ, Williams DM, Compston JC, Stirling DM, Prentice A.  
Br J Haematol. 1995 Apr;89(4):927-8. Erratum in: Br J Haematol 1995 Jun;90(2):492.  
PMID: 7539627 [PubMed - indexed for MEDLINE]
167. [Lack of alterations in the cytoplasmic domains of the granulocyte colony-stimulating factor receptors in eight cases of severe congenital neutropenia.](#)  
Sandoval C, Parganas E, Wang W, Ihle JN, Adams-Graves P.  
Blood. 1995 Feb 1;85(3):852-3. No abstract available.  
PMID: 7833487 [PubMed - indexed for MEDLINE] **Free Article**
168. [Long-term safety of treatment with recombinant human granulocyte colony-stimulating factor \(r-metHuG-CSF\) in patients with severe congenital neutropenias.](#)  
Bonilla MA, Dale D, Zeidler C, Last L, Reiter A, Ruggeiro M, Davis M, Koci B, Hammond W, Gillio A, et al.  
Br J Haematol. 1994 Dec;88(4):723-30.  
PMID: 7529539 [PubMed - indexed for MEDLINE]
169. [Changes in light-scatter profile, membrane depolarization and calcium mobilization of neutrophils induced by G-CSF in vivo.](#)  
Spiekermann K, Emmendoerffer A, Elsner J, Raeder E, Lohmann-Matthes ML, Welte K, Roesler J.  
Br J Haematol. 1994 Nov;88(3):506-14.  
PMID: 7529531 [PubMed - indexed for MEDLINE]
170. [Identification of a nonsense mutation in the granulocyte-colony-stimulating factor receptor in severe congenital neutropenia.](#)  
Dong F, Hoefsloot LH, Schelen AM, Broeders CA, Meijer Y, Veerman AJ, Touw IP, Löwenberg B.  
Proc Natl Acad Sci U S A. 1994 May 10;91(10):4480-4.  
PMID: 7514305 [PubMed - indexed for MEDLINE] **Free PMC Article**
171. [Altered surface marker expression and function of G-CSF-induced neutrophils from test subjects and patients under chemotherapy.](#)  
Spiekermann K, Emmendoerffer A, Elsner J, Raeder E, Lohmann-Matthes ML, Prahst A, Link H, Freund M, Welte K, Roesler J.  
Br J Haematol. 1994 May;87(1):31-8.  
PMID: 7524617 [PubMed - indexed for MEDLINE]
172. [Cytokine profile during high-dose rhG-CSF therapy in severe congenital neutropenia.](#)  
Shitara T, Yugami S, Ijima H, Sotomatu M, Kuroume T.  
Am J Hematol. 1994 Jan;45(1):58-62.  
PMID: 7504401 [PubMed - indexed for MEDLINE]
173. [\[Long-term treatment with recombinant human granulocyte colony stimulating factor in patients with severe congenital neutropenia\].](#)  
Zeidler C, Reiter A, Yakisan E, Koci B, Riehm H, Welte K.  
Klin Padiatr. 1993 Jul-Aug;205(4):264-71. German.  
PMID: 7690865 [PubMed - indexed for MEDLINE]
174. [Recombinant human stem cell factor, a c-kit ligand, stimulates granulopoiesis in severe congenital neutropenia.](#)  
Ijima H, Shitara T, Yugami S, Sotomatu M, Kuroume T.  
Am J Hematol. 1993 Apr;42(4):407. No abstract available.  
PMID: 7684187 [PubMed - indexed for MEDLINE]
175. [Abnormal regulation in the signal transduction in neutrophils from patients with severe congenital neutropenia: relation of impaired mobilization of cytosolic free calcium to altered chemotaxis, superoxide anion generation and F-actin content.](#)  
Elsner J, Roesler J, Emmendörffer A, Lohmann-Matthes ML, Welte K.  
Exp Hematol. 1993 Jan;21(1):38-46.  
PMID: 7678087 [PubMed - indexed for MEDLINE]
176. [Assessment of G-CSF and GM-CSF mRNA expression in peripheral blood mononuclear cells from patients with severe congenital neutropenia and in human myeloid leukemic cell lines.](#)  
Bernhardt TM, Burchardt ER, Welte K.  
Exp Hematol. 1993 Jan;21(1):163-8.  
PMID: 7678086 [PubMed - indexed for MEDLINE]

- 177.  [Expression of receptors for granulocyte colony-stimulating factor on neutrophils from patients with severe congenital neutropenia and cyclic neutropenia.](#)  
Kyas U, Pietsch T, Welte K.  
Blood. 1992 Mar 1;79(5):1144-7.  
PMID: 1371412 [PubMed - indexed for MEDLINE] **Free Article**
  
- 178.  [Increased serum levels of granulocyte colony-stimulating factor in patients with severe congenital neutropenia.](#)  
Mempel K, Pietsch T, Menzel T, Zeidler C, Welte K.  
Blood. 1991 May 1;77(9):1919-22.  
PMID: 1708293 [PubMed - indexed for MEDLINE] **Free Article**
  
- 179.  [Severe congenital neutropenia: clinical effects and neutrophil function during treatment with granulocyte colony-stimulating factor.](#)  
Weston B, Todd RF 3rd, Axtell R, Balazovich K, Stewart J, Locey BJ, Mayo-Bond L, Loos P, Hutchinson R, Boxer LA.  
J Lab Clin Med. 1991 Apr;117(4):282-90.  
PMID: 1707086 [PubMed - indexed for MEDLINE]
  
- 180.  [Differential effects of granulocyte-macrophage colony-stimulating factor and granulocyte colony-stimulating factor in children with severe congenital neutropenia.](#)  
Welte K, Zeidler C, Reiter A, Müller W, Odenwald E, Souza L, Riehm H.  
Blood. 1990 Mar 1;75(5):1056-63.  
PMID: 1689595 [PubMed - indexed for MEDLINE] **Free Article**
  
- 181.  [Granulopoiesis in severe congenital neutropenia.](#)  
Amato D, Freedman MH, Saunders EF.  
Blood. 1976 Apr;47(4):531-8.  
PMID: 1083263 [PubMed - indexed for MEDLINE] **Free Article**

Limits Activated: Humans [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 11 articles](#) about **G6PC3** gene function**G6PC3** glucose 6 phosphatase, catalytic, 3 [Homo sapiens]g6pc3 in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 12 Gene records](#)

## Results: 17

- [Mutations in the G6PC3 gene cause Dursun syndrome.](#)
  1. Banka S, Newman WG, Ozgöl RK, Dursun A. Am J Med Genet A. 2010 Oct;152A(10):2609-11. PMID: 20799326 [PubMed - indexed for MEDLINE]
- [Severe congenital neutropenia resulting from G6PC3 deficiency with increased neutrophil CXCR4 expression and myelokathexis.](#)
  2. McDermott DH, De Ravin SS, Jun HS, Liu Q, Priel DA, Noel P, Takemoto CM, Ojode T, Paul SM, Dunsmore KP, Hilligoss D, Marquesen M, Ulrick J, Kuhns DB, Chou JY, Malech HL, Murphy PM. Blood. 2010 Oct 14;116(15):2793-802. Epub 2010 Jul 8. PMID: 20616219 [PubMed - indexed for MEDLINE]
- [Lack of glucose recycling between endoplasmic reticulum and cytoplasm underlies cellular dysfunction in glucose-6-phosphatase-beta-deficient neutrophils in a congenital neutropenia syndrome.](#)
  3. Jun HS, Lee YM, Cheung YY, McDermott DH, Murphy PM, De Ravin SS, Mansfield BC, Chou JY. Blood. 2010 Oct 14;116(15):2783-92. Epub 2010 May 24. PMID: 20498302 [PubMed - indexed for MEDLINE]
- [Digenic mutations in severe congenital neutropenia.](#)
  4. Germeshausen M, Zeidler C, Stuhmann M, Lanciotti M, Ballmaier M, Welte K. Haematologica. 2010 Jul;95(7):1207-10. Epub 2010 Mar 10. PMID: 20220065 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Congenital neutropenia.](#)
  5. Klein C. Hematology Am Soc Hematol Educ Program. 2009:344-50. Review. PMID: 20008220 [PubMed - indexed for MEDLINE] **Free Article**
- [Novel genetic etiologies of severe congenital neutropenia.](#)
  6. Boztug K, Klein C. Curr Opin Immunol. 2009 Oct;21(5):472-80. Epub 2009 Sep 24. Review. PMID: 19782549 [PubMed - indexed for MEDLINE]
- [Prevalence of mutations in ELANE, GFI1, HAX1, SBDS, WAS and G6PC3 in patients with severe congenital neutropenia.](#)
  7. Xia J, Bolyard AA, Rodger E, Stein S, Aprikyan AA, Dale DC, Link DC. Br J Haematol. 2009 Nov;147(4):535-42. Epub 2009 Sep 22. PMID: 19775295 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Glucose-6-phosphatase catalytic subunit gene family.](#)
  8. Hutton JC, O'Brien RM. J Biol Chem. 2009 Oct 23;284(43):29241-5. Epub 2009 Aug 20. Review. PMID: 19700406 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [A novel G6PC3 homozygous 1-bp deletion as a cause of severe congenital neutropenia.](#)
  9. Aróstegui JI, de Toledo JS, Pascal M, García C, Yagüe J, Díaz de Heredia C. Blood. 2009 Aug 20;114(8):1718-9. No abstract available. PMID: 19696212 [PubMed - indexed for MEDLINE] **Free Article**
- [Genetic insights into congenital neutropenia.](#)
  10. Klein C, Welte K. Clin Rev Allergy Immunol. 2010 Feb;38(1):68-74. Review. PMID: 19440858 [PubMed - indexed for MEDLINE]

- [Acute lymphoblastic leukemia following severe congenital neutropenia or de novo ALL?](#)
- 11. Valera ET, Brassesco MS, Germeshausen M, Silveira Vda S, Queiroz RG, Roxo P, Scrideli CA, de Menezes UP, Ferriani V, Tone LG. *Leuk Res.* 2009 Sep;33(9):e139-42. Epub 2009 Apr 26.  
PMID: 19398129 [PubMed - indexed for MEDLINE]
  
- [Severe congenital neutropenia.](#)
- 12. Welte K, Zeidler C. *Hematol Oncol Clin North Am.* 2009 Apr;23(2):307-20.  
PMID: 19327585 [PubMed - indexed for MEDLINE]
  
- [A syndrome with congenital neutropenia and mutations in G6PC3.](#)
- 13. Boztug K, Appaswamy G, Ashikov A, Schäffer AA, Salzer U, Diestelhorst J, Germeshausen M, Brandes G, Lee-Gossler J, Noyan F, Gatzke AK, Minkov M, Greil J, Kratz C, Petropoulou T, Pellier I, Bellanné-Chantelot C, Rezaei N, Mönkemöller K, Irani-Hakimeh N, Bakker H, Gerardy-Schahn R, Zeidler C, Grimbacher B, Welte K, Klein C. *N Engl J Med.* 2009 Jan 1;360(1):32-43.  
PMID: 19118303 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Glucose production in the human placenta.](#)
- 14. Leonce J, Brockton N, Robinson S, Venkatesan S, Bannister P, Raman V, Murphy K, Parker K, Pavitt D, Teoh TG, Regan L, Burchell A, Steer P, Johnston DG. *Placenta.* 2006 Apr;27 Suppl A:S103-8. Review.  
PMID: 16618444 [PubMed - indexed for MEDLINE]
  
- [In islet-specific glucose-6-phosphatase-related protein, the beta cell antigenic sequence that is targeted in diabetes is not responsible for the loss of phosphohydrolase activity.](#)
- 15. Shieh JJ, Pan CJ, Mansfield BC, Chou JY. *Diabetologia.* 2005 Sep;48(9):1851-9. Epub 2005 Jul 13.  
PMID: 16012821 [PubMed - indexed for MEDLINE]
  
- [Identification and characterisation of a new human glucose-6-phosphatase isoform.](#)
- 16. Guionie O, Clottes E, Stafford K, Burchell A. *FEBS Lett.* 2003 Sep 11;551(1-3):159-64.  
PMID: 12965222 [PubMed - indexed for MEDLINE]
  
- [Identification and characterization of a human cDNA and gene encoding a ubiquitously expressed glucose-6-phosphatase catalytic subunit-related protein.](#)
- 17. Martin CC, Oeser JK, Svitek CA, Hunter SI, Hutton JC, O'Brien RM. *J Mol Endocrinol.* 2002 Oct;29(2):205-22.  
PMID: 12370122 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: G6PC3 and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (3)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

Limits Activated: Humans [Change](#) | [Remove](#)**Are you looking for gene information?**

Source: Gene Database

[See 11 articles](#) about **G6PC3** gene function**G6PC3** glucose 6 phosphatase, catalytic, 3 [Homo sapiens]g6pc3 in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 12 Gene records](#)**Results: 3**

- [Severe congenital neutropenia resulting from G6PC3 deficiency with increased neutrophil CXCR4 expression and myelokathexis.](#)
- 1. McDermott DH, De Ravin SS, Jun HS, Liu Q, Priel DA, Noel P, Takemoto CM, Ojode T, Paul SM, Dunsmore KP, Hilligoss D, Marquesen M, Ulrick J, Kuhns DB, Chou JY, Malech HL, Murphy PM.  
Blood. 2010 Oct 14;116(15):2793-802. Epub 2010 Jul 8.  
PMID: 20616219 [PubMed - indexed for MEDLINE]
- [A novel G6PC3 homozygous 1-bp deletion as a cause of severe congenital neutropenia.](#)
- 2. Aróstegui JI, de Toledo JS, Pascal M, García C, Yagüe J, Díaz de Heredia C.  
Blood. 2009 Aug 20;114(8):1718-9. No abstract available.  
PMID: 19696212 [PubMed - indexed for MEDLINE] **Free Article**
- [Acute lymphoblastic leukemia following severe congenital neutropenia or de novo ALL?](#)
- 3. Valera ET, Brassesco MS, Germeshausen M, Silveira Vda S, Queiroz RG, Roxo P, Scrideli CA, de Menezes UP, Ferriani V, Tone LG.  
Leuk Res. 2009 Sep;33(9):e139-42. Epub 2009 Apr 26.  
PMID: 19398129 [PubMed - indexed for MEDLINE]

**Results: 3**

- [A syndrome with congenital neutropenia and mutations in G6PC3.](#)
- 1. Boztug K, Appaswamy G, Ashikov A, Schäffer AA, Salzer U, Diestelhorst J, Germeshausen M, Brandes G, Lee-Gossler J, Noyan F, Gatzke AK, Minkov M, Greil J, Kratz C, Petropoulou T, Pellier I, Bellanné-Chantelot C, Rezaei N, Mönkemöller K, Irani-Hakimeh N, Bakker H, Gerardy-Schahn R, Zeidler C, Grimbacher B, Welte K, Klein C.  
N Engl J Med. 2009 Jan 1;360(1):32-43.  
PMID: 19118303 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [The many causes of severe congenital neutropenia.](#)
- 2. Dale DC, Link DC.  
N Engl J Med. 2009 Jan 1;360(1):3-5. No abstract available.  
PMID: 19118300 [PubMed - indexed for MEDLINE]
- [Toxicity of high-dose ifosfamide in children.](#)
- 3. Davies SM, Pearson AD, Craft AW.  
Cancer Chemother Pharmacol. 1989;24 Suppl 1:S8-10.  
PMID: 2503259 [PubMed - indexed for MEDLINE]

Limits Activated: Humans [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 14 articles](#) about **SLC37A4 (G6PT1)** gene function**SLC37A4 (G6PT1)** solute carrier family 37 (glucose-6-phosphate transporter), member 4 [Homo sapiens]g6pt1 in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 6 Gene records](#)

## Results: 6

- [A patient with common glycogen storage disease type 1b mutations without neutropenia or neutrophil dysfunction.](#)
- 1. Martens DH, Kuijpers TW, Maianski NA, Rake JP, Smit GP, Visser G.  
J Inherit Metab Dis. 2006 Feb;29(1):224-5.  
PMID: 16601899 [PubMed - indexed for MEDLINE]
- [Glycogen storage disease type 1b without neutropenia generated by a novel splice-site mutation in the glucose-6-phosphate translocase gene.](#)
- 2. Angaroni CJ, Labrune P, Petit F, Sastre D, Capra AE, Dodelson de Kremer R, Argaraña CE.  
Mol Genet Metab. 2006 May;88(1):96-9. Epub 2006 Feb 21.  
PMID: 16490377 [PubMed - indexed for MEDLINE]
- [Intestinal glucose transport: evidence for a membrane traffic-based pathway in humans.](#)
- 3. Santer R, Hillebrand G, Steinmann B, Schaub J.  
Gastroenterology. 2003 Jan;124(1):34-9.  
PMID: 12512027 [PubMed - indexed for MEDLINE]
- [Novel missense mutation \(Y24H\) in the G6PT1 gene causing glycogen storage disease type 1b.](#)
- 4. Yuen YP, Cheng WF, Tong SF, Chan YT, Chan YW, Lam CW.  
Mol Genet Metab. 2002 Nov;77(3):249-51.  
PMID: 12409273 [PubMed - indexed for MEDLINE]
- [Multiple transport protein defects in a patient with glycogen storage disease type 1: GSD 1b/1c beta.](#)
- 5. Hawkins RA, Kamath KR, Scott HM, Burchell A.  
J Inherit Metab Dis. 1995;18(5):558-66.  
PMID: 8598636 [PubMed - indexed for MEDLINE]
- [Glycogen storage disease type 1b due to a defect of glucose-6-phosphate translocase.](#)
- 6. Narisawa K, Otomo H, Igarashi Y, Arai N, Otake M, Tada K, Kuzuya T.  
J Inherit Metab Dis. 1982;5(4):227-8.  
PMID: 6133035 [PubMed - indexed for MEDLINE]



Limits Activated: Humans [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 14 articles](#) about **SLC37A4 (G6PT1)** gene function**SLC37A4 (G6PT1)** solute carrier family 37 (glucose-6-phosphate transporter), member 4 [Homo sapiens]g6pt1 in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 6 Gene records](#)

## Results: 6

- [A patient with common glycogen storage disease type 1b mutations without neutropenia or neutrophil dysfunction.](#)
- 1. Martens DH, Kuijpers TW, Maianski NA, Rake JP, Smit GP, Visser G.  
J Inherit Metab Dis. 2006 Feb;29(1):224-5.  
PMID: 16601899 [PubMed - indexed for MEDLINE]
- [Glycogen storage disease type 1b without neutropenia generated by a novel splice-site mutation in the glucose-6-phosphate translocase gene.](#)
- 2. Angaroni CJ, Labrune P, Petit F, Sastre D, Capra AE, Dodelson de Kremer R, Argaraña CE.  
Mol Genet Metab. 2006 May;88(1):96-9. Epub 2006 Feb 21.  
PMID: 16490377 [PubMed - indexed for MEDLINE]
- [Intestinal glucose transport: evidence for a membrane traffic-based pathway in humans.](#)
- 3. Santer R, Hillebrand G, Steinmann B, Schaub J.  
Gastroenterology. 2003 Jan;124(1):34-9.  
PMID: 12512027 [PubMed - indexed for MEDLINE]
- [Novel missense mutation \(Y24H\) in the G6PT1 gene causing glycogen storage disease type 1b.](#)
- 4. Yuen YP, Cheng WF, Tong SF, Chan YT, Chan YW, Lam CW.  
Mol Genet Metab. 2002 Nov;77(3):249-51.  
PMID: 12409273 [PubMed - indexed for MEDLINE]
- [Multiple transport protein defects in a patient with glycogen storage disease type 1: GSD 1b/1c beta.](#)
- 5. Hawkins RA, Kamath KR, Scott HM, Burchell A.  
J Inherit Metab Dis. 1995;18(5):558-66.  
PMID: 8598636 [PubMed - indexed for MEDLINE]
- [Glycogen storage disease type 1b due to a defect of glucose-6-phosphate translocase.](#)
- 6. Narisawa K, Otomo H, Igarashi Y, Arai N, Otake M, Tada K, Kuzuya T.  
J Inherit Metab Dis. 1982;5(4):227-8.  
PMID: 6133035 [PubMed - indexed for MEDLINE]

# PubMed

Search: Glucose-6- phosphate transporter 1 or G6PT1

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (51)

Display Settings: Summary, 100 per page, Sorted by Recently Added

[Manage Filters](#)Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 51

1. [Carbohydrate-response-element-binding protein \(ChREBP\) and not the liver X receptor  \$\alpha\$  \(LXR \$\alpha\$ \) mediates elevated hepatic lipogenic gene expression in a mouse model of glycogen storage disease type 1.](#)  
Greffhorst A, Schreurs M, Oosterveer MH, Cortés VA, Havinga R, Herling AW, Reijngoud DJ, Groen AK, Kuipers F.  
Biochem J. 2010 Dec 1;432(2):249-54.  
PMID: 20854262 [PubMed - indexed for MEDLINE]
2. [Altered redox state of luminal pyridine nucleotides facilitates the sensitivity towards oxidative injury and leads to endoplasmic reticulum stress dependent autophagy in HepG2 cells.](#)  
Százaz P, Bánhegyi G, Benedetti A.  
Int J Biochem Cell Biol. 2010 Jan;42(1):157-66. Epub 2009 Oct 9.  
PMID: 19819344 [PubMed - indexed for MEDLINE]
3. [Neutropenia in type Ib glycogen storage disease.](#)  
Chou JY, Jun HS, Mansfield BC.  
Curr Opin Hematol. 2010 Jan;17(1):36-42. Review.  
PMID: 19741523 [PubMed - indexed for MEDLINE]
4. [Evidence for transcriptional regulation of the glucose-6-phosphate transporter by HIF-1alpha: Targeting G6PT with mumbaistatin analogs in hypoxic mesenchymal stromal cells.](#)  
Lord-Dufour S, Copland IB, Levros LC Jr, Post M, Das A, Khosla C, Galipeau J, Rassart E, Annabi B.  
Stem Cells. 2009 Mar;27(3):489-97.  
PMID: 19074414 [PubMed - indexed for MEDLINE] **Free PMC Article**
5. [Structure-function study of the glucose-6-phosphate transporter, an eukaryotic antiporter deficient in glycogen storage disease type Ib.](#)  
Pan CJ, Chen SY, Lee S, Chou JY.  
Mol Genet Metab. 2009 Jan;96(1):32-7. Epub 2008 Nov 12.  
PMID: 19008136 [PubMed - indexed for MEDLINE]
6. [Maintenance of luminal NADPH in the endoplasmic reticulum promotes the survival of human neutrophil granulocytes.](#)  
Kardon T, Senesi S, Marcolongo P, Legeza B, Bánhegyi G, Mandl J, Fulceri R, Benedetti A.  
FEBS Lett. 2008 Jun 11;582(13):1809-15. Epub 2008 May 8.  
PMID: 18472006 [PubMed - indexed for MEDLINE]
7. [Silencing of the MT1-MMP/ G6PT axis suppresses calcium mobilization by sphingosine-1-phosphate in glioblastoma cells.](#)  
Fortier S, Labelle D, Sina A, Moreau R, Annabi B.  
FEBS Lett. 2008 Mar 5;582(5):799-804. Epub 2008 Feb 11.  
PMID: 18267120 [PubMed - indexed for MEDLINE]
8. [Hepatocyte transplantation for glycogen storage disease type Ib.](#)  
Lee KW, Lee JH, Shin SW, Kim SJ, Joh JW, Lee DH, Kim JW, Park HY, Lee SY, Lee HH, Park JW, Kim SY, Yoon HH, Jung DH, Choe YH, Lee SK.  
Cell Transplant. 2007;16(6):629-37.  
PMID: 17912954 [PubMed - indexed for MEDLINE]
9. [11beta-Hydroxysteroid Dehydrogenase Type 1 Regulation by Intracellular Glucose 6-Phosphate Provides Evidence for a Novel Link between Glucose Metabolism and Hypothalamo-Pituitary-Adrenal Axis Function.](#)  
Walker EA, Ahmed A, Lavery GG, Tomlinson JW, Kim SY, Cooper MS, Ride JP, Hughes BA, Shackleton CH, McKiernan P, Elias E, Chou JY, Stewart PM.  
J Biol Chem. 2007 Sep 14;282(37):27030-6. Epub 2007 Jun 22.  
PMID: 17588937 [PubMed - indexed for MEDLINE] **Free Article**
10. [Necrosis induction in glioblastoma cells reveals a new "bioswitch" function for the MT1-MMP/G6PT signaling axis in proMMP-2 activation versus cell death decision.](#)  
Belkaid A, Fortier S, Cao J, Annabi B.  
Neoplasia. 2007 Apr;9(4):332-40.  
PMID: 17460777 [PubMed - indexed for MEDLINE] **Free PMC Article**

- [Genetic variation in hepatic glucose-6-phosphatase system genes in cases of sudden infant death syndrome.](#)
- 11. Forsyth L, Scott HM, Howatson A, Busuttill A, Hume R, Burchell A.  
J Pathol. 2007 May;212(1):112-20.  
PMID: 17354259 [PubMed - indexed for MEDLINE]
- [Resequencing the G6PT1 gene reveals a novel splicing mutation in a patient with glycogen storage disease type 1b.](#)
- 12. Lam CW, Yan MS, Law TY, Tong SF, Orrico A, Galli L, Sorrentino V, Benedetti A.  
Clin Chim Acta. 2006 Dec;374(1-2):147-8. Epub 2006 Apr 18. No abstract available.  
PMID: 16716283 [PubMed - indexed for MEDLINE]
- [A patient with common glycogen storage disease type 1b mutations without neutropenia or neutrophil dysfunction.](#)
- 13. Martens DH, Kuijpers TW, Maiani NA, Rake JP, Smit GP, Visser G.  
J Inherit Metab Dis. 2006 Feb;29(1):224-5.  
PMID: 16601899 [PubMed - indexed for MEDLINE]
- [Glycogen storage disease type 1b without neutropenia generated by a novel splice-site mutation in the glucose-6-phosphate translocase gene.](#)
- 14. Angaroni CJ, Labrune P, Petit F, Sastre D, Capra AE, Dodelson de Kremer R, Argaraña CE.  
Mol Genet Metab. 2006 May;88(1):96-9. Epub 2006 Feb 21.  
PMID: 16490377 [PubMed - indexed for MEDLINE]
- [Mutation spectrum of type I glycogen storage disease in Hungary.](#)
- 15. Miltenberger-Miltenyi G, Szonyi L, Balogh L, Utermann G, Janecke AR.  
J Inherit Metab Dis. 2005;28(6):939-44.  
PMID: 16435186 [PubMed - indexed for MEDLINE]
- [Genotype/phenotype correlation in glycogen storage disease type 1b: a multicentre study and review of the literature.](#)
- 16. Melis D, Fulceri R, Parenti G, Marcolongo P, Gatti R, Parini R, Riva E, Della Casa R, Zammarchi E, Andria G, Benedetti A.  
Eur J Pediatr. 2005 Aug;164(8):501-8. Epub 2005 May 19. Review.  
PMID: 15906092 [PubMed - indexed for MEDLINE]
- [Amelioration of neutrophil membrane function underlies granulocyte-colony stimulating factor action in glycogen storage disease 1b.](#)
- 17. Lesma E, Riva E, Giovannini M, Di Giulio AM, Gorio A.  
Int J Immunopathol Pharmacol. 2005 Apr-Jun;18(2):297-307.  
PMID: 15888252 [PubMed - indexed for MEDLINE]
- [Genetic testing of glycogen storage disease type 1b in Japan: five novel G6PT1 mutations and a rapid detection method for a prevalent mutation W118R.](#)
- 18. Kojima K, Kure S, Kamada F, Hao K, Ichinohe A, Sato K, Aoki Y, Yoichi S, Kubota M, Horikawa R, Utsumi A, Miura M, Ogawa S, Kanazawa M, Kohno Y, Inokuchi M, Hasegawa T, Narisawa K, Matsubara Y.  
Mol Genet Metab. 2004 Apr;81(4):343-6.  
PMID: 15059622 [PubMed - indexed for MEDLINE]
- [Identification and characterization of human LL5A gene and mouse LI5a gene in silico.](#)
- 19. Katoh M, Katoh M.  
Int J Oncol. 2003 Nov;23(5):1477-83.  
PMID: 14532993 [PubMed - indexed for MEDLINE]
- [The human sugar-phosphate/phosphate exchanger family SLC37.](#)
- 20. Bartoloni L, Antonarakis SE.  
Pflugers Arch. 2004 Feb;447(5):780-3. Epub 2003 Jun 17. Review.  
PMID: 12811562 [PubMed - indexed for MEDLINE]
- [Intestinal glucose transport: evidence for a membrane traffic-based pathway in humans.](#)
- 21. Santer R, Hillebrand G, Steinmann B, Schaub J.  
Gastroenterology. 2003 Jan;124(1):34-9.  
PMID: 12512027 [PubMed - indexed for MEDLINE]
- [Novel missense mutation \(Y24H\) in the G6PT1 gene causing glycogen storage disease type 1b.](#)
- 22. Yuen YP, Cheng WF, Tong SF, Chan YT, Chan YW, Lam CW.  
Mol Genet Metab. 2002 Nov;77(3):249-51.  
PMID: 12409273 [PubMed - indexed for MEDLINE]
- [Glycogen storage disease type I: diagnosis and phenotype/genotype correlation.](#)
- 23. Matern D, Seydewitz HH, Bali D, Lang C, Chen YT.  
Eur J Pediatr. 2002 Oct;161 Suppl 1:S10-9. Epub 2002 Jul 27.  
PMID: 12373566 [PubMed - indexed for MEDLINE]

- [Type I glycogen storage diseases: disorders of the glucose-6-phosphatase complex.](#)
- 24. Chou JY, Matern D, Mansfield BC, Chen YT.  
Curr Mol Med. 2002 Mar;2(2):121-43. Review.  
PMID: 11949931 [PubMed - indexed for MEDLINE]
- [The molecular basis of type 1 glycogen storage diseases.](#)
- 25. Chou JY.  
Curr Mol Med. 2001 Mar;1(1):25-44. Review.  
PMID: 11899241 [PubMed - indexed for MEDLINE]
- [Glucocorticoids activate transcription of the gene for the glucose-6-phosphate transporter, deficient in glycogen storage disease type 1b.](#)
- 26. Hiraiwa H, Chou JY.  
DNA Cell Biol. 2001 Aug;20(8):447-53.  
PMID: 11560776 [PubMed - indexed for MEDLINE]
- [Glucose 6-phosphate transport in fibroblast microsomes from glycogen storage disease type 1b patients: evidence for multiple glucose 6-phosphate transport systems.](#)
- 27. Leuzzi R, Fulceri R, Marcolongo P, Bánhegyi G, Zammarchi E, Stafford K, Burchell A, Benedetti A.  
Biochem J. 2001 Jul 15;357(Pt 2):557-62.  
PMID: 11439108 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Molecular genetics of type 1 glycogen storage disease.](#)
- 28. Janecke AR, Mayatepek E, Utermann G.  
Mol Genet Metab. 2001 Jun;73(2):117-25. Review.  
PMID: 11386847 [PubMed - indexed for MEDLINE]
- [Differential expression of the subunits of the glucose-6-phosphatase system in the clear cell type of human renal cell carcinoma - no evidence for an overexpression of protein kinase B.](#)
- 29. Schmoll D, Balabanov S, Schwarck D, Burchell A, Kleist B, Zimmermann U, Walther R.  
Cancer Lett. 2001 Jun 10;167(1):85-90.  
PMID: 11323102 [PubMed - indexed for MEDLINE]
- [A molecular link between the common phenotypes of type 1 glycogen storage disease and HNF1alpha-null mice.](#)
- 30. Hiraiwa H, Pan CJ, Lin B, Akiyama TE, Gonzalez FJ, Chou JY.  
J Biol Chem. 2001 Mar 16;276(11):7963-7. Epub 2000 Dec 19.  
PMID: 11121425 [PubMed - indexed for MEDLINE] **Free Article**
- [Mutation analysis in glycogen storage disease type 1 non-a.](#)
- 31. Janecke AR, Lindner M, Erdel M, Mayatepek E, Möslinger D, Podskarbi T, Fresser F, Stöckler-Ipsiroglu S, Hoffmann GF, Utermann G.  
Hum Genet. 2000 Sep;107(3):285-9.  
PMID: 11071391 [PubMed - indexed for MEDLINE]
- [Quantitative analysis of glucose-6-phosphate translocase gene expression in various human tissues and haematopoietic progenitor cells.](#)
- 32. Ihara K, Nomura A, Hikino S, Takada H, Hara T.  
J Inherit Metab Dis. 2000 Sep;23(6):583-92.  
PMID: 11032333 [PubMed - indexed for MEDLINE]
- [Prenatal diagnosis of glycogen storage disease type 1b using denaturing high performance liquid chromatography.](#)
- 33. Lam CW, Sin SY, Lau ET, Lam YY, Poon P, Tong SF.  
Prenat Diagn. 2000 Sep;20(9):765-8.  
PMID: 11015710 [PubMed - indexed for MEDLINE]
- [Structural requirements for the stability and microsomal transport activity of the human glucose 6-phosphate transporter.](#)
- 34. Chen LY, Lin B, Pan CJ, Hiraiwa H, Chou JY.  
J Biol Chem. 2000 Nov 3;275(44):34280-6.  
PMID: 10940311 [PubMed - indexed for MEDLINE] **Free Article**
- [Molecular analysis in glycogen storage disease 1 non-A: DHPLC detection of the highly prevalent exon 8 mutations of the G6PT1 gene in German patients.](#)
- 35. Santer R, Rischewski J, Block G, Kinner M, Wendel U, Schaub J, Schneppenheim R.  
Hum Mutat. 2000 Aug;16(2):177.  
PMID: 10923042 [PubMed - indexed for MEDLINE]
- [A novel missense mutation \(P191L\) in the glucose-6-phosphate translocase gene identified in a Chinese family with glycogen storage disease 1b.](#)
- 36. Lam CW, Chan KY, Tong SF, Chan BY, Chan YT, Chan YW.  
Hum Mutat. 2000 Jul;16(1):94. No abstract available.  
PMID: 10874322 [PubMed - indexed for MEDLINE]

- [How many forms of glycogen storage disease type I?](#)
- 37. Veiga-da-Cunha M, Gerin I, Van Schaftingen E.  
Eur J Pediatr. 2000 May;159(5):314-8. Review.  
PMID: 10834514 [PubMed - indexed for MEDLINE]
- [New lessons in the regulation of glucose metabolism taught by the glucose 6-phosphatase system.](#)
- 38. van de Werve G, Lange A, Newgard C, Méchin MC, Li Y, Berteloot A.  
Eur J Biochem. 2000 Mar;267(6):1533-49. Review.  
PMID: 10712583 [PubMed - indexed for MEDLINE] **Free Article**
- [Type-1c glycogen storage disease is not caused by mutations in the glucose-6-phosphate transporter gene.](#)
- 39. Lin B, Hiraiwa H, Pan CJ, Nordlie RC, Chou JY.  
Hum Genet. 1999 Nov;105(5):515-7.  
PMID: 10598822 [PubMed - indexed for MEDLINE]
- [Diabetes affects similarly the catalytic subunit and putative glucose-6-phosphate translocase of glucose-6-phosphatase.](#)
- 40. Li Y, Méchin MC, van de Werve G.  
J Biol Chem. 1999 Nov 26;274(48):33866-8.  
PMID: 10567346 [PubMed - indexed for MEDLINE] **Free Article**
- [Mutations in the glucose-6-phosphate transporter \(G6PT\) gene in patients with glycogen storage diseases type 1b and 1c.](#)
- 41. Galli L, Orrico A, Marcolongo P, Fulceri R, Burchell A, Melis D, Parini R, Gatti R, Lam C, Benedetti A, Sorrentino V.  
FEBS Lett. 1999 Oct 8;459(2):255-8.  
PMID: 10518030 [PubMed - indexed for MEDLINE]
- [Molecular diagnosis of type 1c glycogen storage disease.](#)
- 42. Janecke AR, Bosshard NU, Mayatepek E, Schulze A, Gitzelmann R, Burchell A, Bartram CR, Janssen B.  
Hum Genet. 1999 Mar;104(3):275-7.  
PMID: 10323254 [PubMed - indexed for MEDLINE]
- [Identification of protein components of the microsomal glucose 6-phosphate transporter by photoaffinity labelling.](#)
- 43. Kramer W, Burger HJ, Arion WJ, Corsiero D, Girbig F, Weyland C, Hemmerle H, Petry S, Habermann P, Herling A.  
Biochem J. 1999 May 1;339 ( Pt 3):629-38.  
PMID: 10215602 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Assignment1 of glucose 6-phosphate translocase \(G6PT1\) to human chromosome band 11q23.3 by in situ hybridization.](#)
- 44. Ihara K, Takabayashi A, Terasaki K, Hara T.  
Cytogenet Cell Genet. 1998;83(1-2):50-1. No abstract available.  
PMID: 9925924 [PubMed - indexed for MEDLINE]
- [Genomic structure of the human glucose 6-phosphate translocase gene and novel mutations in the gene of a Japanese patient with glycogen storage disease type 1b.](#)
- 45. Ihara K, Kuromaru R, Hara T.  
Hum Genet. 1998 Oct;103(4):493-6.  
PMID: 9856496 [PubMed - indexed for MEDLINE]
- [A gene on chromosome 11q23 coding for a putative glucose- 6-phosphate translocase is mutated in glycogen-storage disease types 1b and 1c.](#)
- 46. Veiga-da-Cunha M, Gerin I, Chen YT, de Barsey T, de Lonlay P, Dionisi-Vici C, Fenske CD, Lee PJ, Leonard JV, Maire I, McConkie-Rosell A, Schweitzer S, Vikkula M, Van Schaftingen E.  
Am J Hum Genet. 1998 Oct;63(4):976-83.  
PMID: 9758626 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Multiple transport protein defects in a patient with glycogen storage disease type 1: GSD 1b/1c beta.](#)
- 47. Hawkins RA, Kamath KR, Scott HM, Burchell A.  
J Inherit Metab Dis. 1995;18(5):558-66.  
PMID: 8598636 [PubMed - indexed for MEDLINE]
- [A direct method for the diagnosis of human hepatic type 1b and type 1c glycogen-storage disease.](#)
- 48. Waddell ID, Hume R, Burchell A.  
Clin Sci (Lond). 1989 Jun;76(6):573-9.  
PMID: 2544342 [PubMed - indexed for MEDLINE]
- [Gastric drip feeding in patients with glycogen storage disease type I: its effects on growth and plasma lipids and apolipoproteins.](#)
- 49. Fernandes J, Alaupovic P, Wit JM.  
Pediatr Res. 1989 Apr;25(4):327-31.  
PMID: 2542871 [PubMed - indexed for MEDLINE]

- [\[Glucose-6-phosphate translocase deficiency--glycogen storage disease type 1 b\].](#)
- 50. Narisawa K.  
Tanpakushitsu Kakusan Koso. 1988 Apr;33(5):813-6. Japanese. No abstract available.  
PMID: 2855954 [PubMed - indexed for MEDLINE]
- [Glycogen storage disease type 1b due to a defect of glucose-6-phosphate translocase.](#)
- 51. Narisawa K, Otomo H, Igarashi Y, Arai N, Otake M, Tada K, Kuzuya T.  
J Inherit Metab Dis. 1982;5(4):227-8.  
PMID: 6133035 [PubMed - indexed for MEDLINE]

# PubMed

Search: Cyclic neutropenia syndrome and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (20)

Display Settings: Summary, 20 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 20

1. [Image of the month. Albinism, cyclic neutropenia, and ceroid pigment in the liver.](#)  
Calderaro J, Zafrani ES.  
Hepatology. 2009 Jul;50(1):314-5. No abstract available.  
PMID: 19554547 [PubMed - indexed for MEDLINE]
2. [Cardiomyopathy of unknown etiology: Barth syndrome unrecognized.](#)  
Sweeney RT, Davis GJ, Noonan JA.  
Congenit Heart Dis. 2008 Nov-Dec;3(6):443-8.  
PMID: 19037987 [PubMed - indexed for MEDLINE]
3. [A case of Shwachman-Diamond syndrome confirmed with genetic analysis in a Korean child.](#)  
Lee JH, Bae SH, Yu JJ, Lee R, Yun YM, Song EY.  
J Korean Med Sci. 2008 Feb;23(1):142-5.  
PMID: 18303216 [PubMed - indexed for MEDLINE] [Free PMC Article](#) [Free text](#)
4. [Barth syndrome associated with compound hemizygosity and heterozygosity of the TAZ and LDB3 genes.](#)  
Marziliano N, Mannarino S, Nespoli L, Diegoli M, Pasotti M, Malattia C, Grasso M, Pilotto A, Porcu E, Raisaro A, Raineri C, Dore R, Maggio PP, Brega A, Arbustini E.  
Am J Med Genet A. 2007 May 1;143A(9):907-15.  
PMID: 17394203 [PubMed - indexed for MEDLINE]
5. [Identification of a novel AluSx-mediated deletion of exon 3 in the SBDS gene in a patient with Shwachman-Diamond syndrome.](#)  
Costa E, Duque F, Oliveira J, Garcia P, Gonçalves I, Diogo L, Santos R.  
Blood Cells Mol Dis. 2007 Jul-Aug;39(1):96-101. Epub 2007 Mar 21.  
PMID: 17376717 [PubMed - indexed for MEDLINE]
6. [Ventricular arrhythmia in the X-linked cardiomyopathy Barth syndrome.](#)  
Spencer CT, Byrne BJ, Gewitz MH, Wechsler SB, Kao AC, Gerstenfeld EP, Merliss AD, Carboni MP, Bryant RM.  
Pediatr Cardiol. 2005 Sep-Oct;26(5):632-7.  
PMID: 16235007 [PubMed - indexed for MEDLINE]
7. [Association of chronic symptomatic neutropenia with the triple A syndrome.](#)  
Spiegel R, Shalev S, Huebner A, Horovitz Y.  
J Pediatr Hematol Oncol. 2005 Jan;27(1):53-5.  
PMID: 15654281 [PubMed - indexed for MEDLINE]
8. [Clostridium septicum myonecrosis in congenital neutropenia.](#)  
Barnes C, Gerstle JT, Freedman MH, Carcao MD.  
Pediatrics. 2004 Dec;114(6):e757-60.  
PMID: 15574607 [PubMed - indexed for MEDLINE] [Free Article](#)
9. [Update on treatment of Marshall's syndrome \(PFAPA syndrome\): report of five cases with review of the literature.](#)  
Berlucchi M, Meini A, Plebani A, Bonvini MG, Lombardi D, Nicolai P.  
Ann Otol Rhinol Laryngol. 2003 Apr;112(4):365-9. Review.  
PMID: 12731633 [PubMed - indexed for MEDLINE]
10. [\[PFAPA Syndrome: Current Standard of Knowledge and Relevance for the ENT Specialist\].](#)  
Ridder GJ, Fradis M, Berner R, Löhle E.  
Laryngorhinootologie. 2002 Sep;81(9):635-9. Review. German.  
PMID: 12357411 [PubMed - indexed for MEDLINE]
11. [Novel missense mutation \(R94S\) in the TAZ \( G4.5\) gene in a Japanese patient with Barth syndrome.](#)  
Sakamoto O, Kitoh T, Ohura T, Ohya N, Iinuma K.  
J Hum Genet. 2002;47(5):229-31.  
PMID: 12032589 [PubMed - indexed for MEDLINE]
12. [\[Stomatitis in childhood, not always benign\].](#)  
Oudshoorn AM, Ramaker C.  
Ned Tijdschr Geneeskd. 2000 Oct 14;144(42):1985-90. Review. Dutch.  
PMID: 11072515 [PubMed - indexed for MEDLINE]
13. [The role of Clostridium septicum in paraneoplastic sepsis.](#)  
Pelletier JP, Plumbley JA, Rouse EA, Cina SJ.

Arch Pathol Lab Med. 2000 Mar;124(3):353-6.  
PMID: 10705386 [PubMed - indexed for MEDLINE]

14. [Leukocyte transfusion-associated granulocyte responses in a patient with X-linked hyper-IgM syndrome.](#)  
Atkinson TP, Smith CA, Hsu YM, Garber E, Su L, Howard TH, Prchal JT, Everson MP, Cooper MD.  
J Clin Immunol. 1998 Nov;18(6):430-9.  
PMID: 9857288 [PubMed - indexed for MEDLINE]
15. [\[Successful treatment of cyclic neutropenia associated with hyperimmunoglobulin M syndrome using recombinant granulocyte-colony stimulating factor\].](#)  
Simon G, Maródi L.  
Orv Hetil. 1995 Oct 1;136(40):2169-72. Hungarian.  
PMID: 7566951 [PubMed - indexed for MEDLINE]
16. [\[Cyclic neutropenia: a disease or a syndrome?\].](#)  
Polovtseva TV, Nefedova EV, Porkhovatyĭ Sla, Finogenova NA, Man'ko VM, Khakhalin LN, Shereshkov SI.  
Gemtol Transfuziol. 1992 Sep-Oct;37(9-10):9-13. Russian.  
PMID: 1490579 [PubMed - indexed for MEDLINE]
17. [Defects of the mitochondrial respiratory chain complexes in three pediatric cases with hypotonia and cardiac involvement.](#)  
Figarella-Branger D, Pellissier JF, Scheiner C, Wernert F, Desnuelle C.  
J Neurol Sci. 1992 Mar;108(1):105-13. Review.  
PMID: 1320661 [PubMed - indexed for MEDLINE]
18. [Management of the ileocecal syndrome. Neutropenic enterocolitis.](#)  
Kunkel JM, Rosenthal D.  
Dis Colon Rectum. 1986 Mar;29(3):196-9.  
PMID: 3943436 [PubMed - indexed for MEDLINE]
19. [Cyclic neutropenia. A tale of two brothers and their family.](#)  
Lange RD, Crowder CG, Cruz P, Hawkinson SW, Lozzio CB, Machado E, Painter P, Terry W, Jones JB.  
Am J Pediatr Hematol Oncol. 1981 Summer;3(2):127-33.  
PMID: 6795955 [PubMed - indexed for MEDLINE]
20. [\[Myocardial fibrosis in Shwachman's syndrome \(author's transl\)\].](#)  
Guerrero J, López Barea F, Calvo C, Moreno F, Solas I.  
An Esp Pediatr. 1979 Jun-Jul;12(6-7):542-8. Spanish.  
PMID: 484946 [PubMed - indexed for MEDLINE]



Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 157

- [An infant with periodic fever.](#)
  1. Rosenberg SL, Steele RW.  
Clin Pediatr (Phila). 2010 Aug;49(8):812-5. No abstract available.  
PMID: 20651259 [PubMed - indexed for MEDLINE]
  
- [Cyclic neutropenia associated with T cell immunity to granulocyte proteases and a double de novo mutation in GF11, a transcriptional regulator of ELANE.](#)
  2. Armistead PM, Wieder E, Akande O, Alatrash G, Quintanilla K, Liang S, Molldrem J.  
Br J Haematol. 2010 Sep;150(6):716-9. doi: 10.1111/j.1365-2141.2010.08274.x. No abstract available.  
PMID: 20560965 [PubMed - indexed for MEDLINE]
  
- [Fever of unknown origin \(FUO\) due to cyclic neutropenia with relative bradycardia.](#)
  3. Cunha BA, Nausheen S.  
Heart Lung. 2009 Jul-Aug;38(4):350-3. Epub 2008 Oct 31.  
PMID: 19577707 [PubMed - indexed for MEDLINE]
  
- [Image of the month. Albinism, cyclic neutropenia, and ceroid pigment in the liver.](#)
  4. Calderaro J, Zafrani ES.  
Hepatology. 2009 Jul;50(1):314-5. No abstract available.  
PMID: 19554547 [PubMed - indexed for MEDLINE]
  
- [\[Cyclic neutropenia: a de novo case and treatment with G-CSF\].](#)
  5. Iglesias Blázquez C, Mata Zubillaga D, Ledesma Benítez I, Martínez Badás JP, Marugán de Miguelsanz JM.  
An Pediatr (Barc). 2009 Apr;70(4):403-5. Epub 2009 Mar 5. Spanish. No abstract available.  
PMID: 19268636 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Cardiomyopathy of unknown etiology: Barth syndrome unrecognized.](#)
  6. Sweeney RT, Davis GJ, Noonan JA.  
Congenit Heart Dis. 2008 Nov-Dec;3(6):443-8.  
PMID: 19037987 [PubMed - indexed for MEDLINE]
  
- [Invasive candidal laryngitis as a manifestation of cyclic neutropenia in an Omani infant.](#)
  7. Al-Kindi H, Abdoon H, Alkhabori M, Daar S, Beshlawi I, Wali YA.  
Pediatr Hematol Oncol. 2008 Jun;25(4):339-44.  
PMID: 18484479 [PubMed - indexed for MEDLINE]
  
- [A case of Shwachman-Diamond syndrome confirmed with genetic analysis in a Korean child.](#)
  8. Lee JH, Bae SH, Yu JJ, Lee R, Yun YM, Song EY.  
J Korean Med Sci. 2008 Feb;23(1):142-5.  
PMID: 18303216 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Quiz. Cyclic neutropenia.](#)
  9. McCarthy D.  
J Ir Dent Assoc. 2007 Autumn;53(3):117, 148. No abstract available.  
PMID: 17953059 [PubMed - indexed for MEDLINE]
  
- [Double de novo mutations of ELA2 in cyclic and severe congenital neutropenia.](#)
  10. Salipante SJ, Benson KF, Luty J, Hadavi V, Kariminejad R, Kariminejad MH, Rezaei N, Horwitz MS.  
Hum Mutat. 2007 Sep;28(9):874-81.  
PMID: 17436313 [PubMed - indexed for MEDLINE]
  
- [Barth syndrome associated with compound hemizygoty and heterozygoty of the TAZ and LDB3 genes.](#)
  11. Marziliano N, Mannarino S, Nespoli L, Diegoli M, Pasotti M, Malattia C, Grasso M, Pilotto A, Porcu E, Raisaro A, Raineri C, Dore R, Maggio PP, Brega A, Arbustini E.  
Am J Med Genet A. 2007 May 1;143A(9):907-15.  
PMID: 17394203 [PubMed - indexed for MEDLINE]
  
- [Identification of a novel AluSx-mediated deletion of exon 3 in the SBDS gene in a patient with Shwachman-Diamond syndrome.](#)
  12. Costa E, Duque F, Oliveira J, Garcia P, Gonçalves I, Diogo L, Santos R.  
Blood Cells Mol Dis. 2007 Jul-Aug;39(1):96-101. Epub 2007 Mar 21.  
PMID: 17376717 [PubMed - indexed for MEDLINE]

- 13. [Periodontitis as a manifestation of chronic benign neutropenia.](#)  
Zaromb A, Chamberlain D, Schoor R, Almas K, Blei F.  
J Periodontol. 2006 Nov;77(11):1921-6.  
PMID: 17076620 [PubMed - indexed for MEDLINE]
- 14. [Ventricular arrhythmia in the X-linked cardiomyopathy Barth syndrome.](#)  
Spencer CT, Byrne BJ, Gewitz MH, Wechsler SB, Kao AC, Gerstenfeld EP, Merliss AD, Carboni MP, Bryant RM.  
Pediatr Cardiol. 2005 Sep-Oct;26(5):632-7.  
PMID: 16235007 [PubMed - indexed for MEDLINE]
- 15. [\[Cyclic neutropenia with anti-NA2 antibodies and treatment with recombinant granulocyte colony-stimulating factor\].](#)  
Barrachina Barberá L, Pérez Martínez A, León García S, Pronzato Cuello F, Martín Arenós J, Toonador E.  
An Pediatr (Barc). 2005 Aug;63(2):180-2. Spanish. No abstract available.  
PMID: 16045884 [PubMed - indexed for MEDLINE] **Free Article**
- 16. [Immunoglobulin A nephropathy associated with cyclic neutropenia.](#)  
Matsukura H, Watanabe S, Ito Y, Kanegane H, Miyawaki T, Shinozaki K.  
Clin Nephrol. 2005 Jun;63(6):502-4. No abstract available.  
PMID: 15960156 [PubMed - indexed for MEDLINE]
- 17. [\[Status asthmaticus vs transtracheal membrane and cyclic neutropenia: a report of a case\].](#)  
Hidalgo Castro EM, Avila Castañón L, Penchina Grub J, del Rio Navarro BE, Sierra Monge JJ.  
Rev Alerg Mex. 2004 Sep-Oct;51(5):189-95. Spanish.  
PMID: 15794409 [PubMed - indexed for MEDLINE]
- 18. [Association of chronic symptomatic neutropenia with the triple A syndrome.](#)  
Spiegel R, Shalev S, Huebner A, Horovitz Y.  
J Pediatr Hematol Oncol. 2005 Jan;27(1):53-5.  
PMID: 15654281 [PubMed - indexed for MEDLINE]
- 19. [Clostridium septicum myonecrosis in congenital neutropenia.](#)  
Barnes C, Gerstle JT, Freedman MH, Carcao MD.  
Pediatrics. 2004 Dec;114(6):e757-60.  
PMID: 15574607 [PubMed - indexed for MEDLINE] **Free Article**
- 20. [Enteritis necroticans with recurrent enterocutaneous fistulae caused by Clostridium perfringens in a child with cyclic neutropenia.](#)  
Li DY, Scheimann AO, Songer JG, Person RE, Horwitz M, Resar L, Schwarz KB.  
J Pediatr Gastroenterol Nutr. 2004 Feb;38(2):213-5. No abstract available.  
PMID: 14734887 [PubMed - indexed for MEDLINE]
- 21. [Noma-like gangrenous cheilitis in a child with cyclic neutropenia associated with myeloperoxidase deficiency.](#)  
Erbagci Z.  
Pediatr Dermatol. 2003 Nov-Dec;20(6):519-23.  
PMID: 14651574 [PubMed - indexed for MEDLINE]
- 22. [\[Cyclic neutropenia, hyperthyroidism, systemic lupus erythematosus, diarrhea and ileum\].](#)  
[No authors listed]  
Medicina (B Aires). 2003;63(4):311-8. Spanish. No abstract available.  
PMID: 14518146 [PubMed - indexed for MEDLINE]
- 23. [Oral manifestations of cyclic neutropenia in a Japanese child: case report with a 5-year follow-up.](#)  
Nakai Y, Ishihara C, Ogata S, Shimono T.  
Pediatr Dent. 2003 Jul-Aug;25(4):383-8.  
PMID: 13678105 [PubMed - indexed for MEDLINE]
- 24. [Update on treatment of Marshall's syndrome \(PFAPA syndrome\): report of five cases with review of the literature.](#)  
Berlucchi M, Meini A, Plebani A, Bonvini MG, Lombardi D, Nicolai P.  
Ann Otol Rhinol Laryngol. 2003 Apr;112(4):365-9. Review.  
PMID: 12731633 [PubMed - indexed for MEDLINE]
- 25. [\[PFAPA Syndrome: Current Standard of Knowledge and Relevance for the ENT Specialist\].](#)  
Ridder GJ, Fradis M, Berner R, Löhle E.  
Laryngorhinootologie. 2002 Sep;81(9):635-9. Review. German.  
PMID: 12357411 [PubMed - indexed for MEDLINE]
- 26. [Adult T-cell leukemia with cyclic neutropenia in a seronegative patient carrying only the tax gene of HTLV-I.](#)  
Miyoshi I, Takemoto S, Taguchi H, Taguchi F, Sawada T.  
Am J Hematol. 2002 Oct;71(2):137-8. No abstract available.  
PMID: 12353317 [PubMed - indexed for MEDLINE]
- 27. [Acute lymphoblastic leukemia presenting as cyclic neutropenia.](#)

27. Goraya JS, Viridi VS, Marwaha N, Khadwal A, Parmar VR.  
Pediatr Hematol Oncol. 2002 Jun;19(4):279-82.  
PMID: 12051596 [PubMed - indexed for MEDLINE]
28. [Novel missense mutation \(R94S\) in the TAZ \( G4.5\) gene in a Japanese patient with Barth syndrome.](#)  
Sakamoto O, Kitoh T, Ohura T, Ohya N, Iinuma K.  
J Hum Genet. 2002;47(5):229-31.  
PMID: 12032589 [PubMed - indexed for MEDLINE]
29. [Cyclic neutropenia and pyomyositis: a rare cause of overwhelming sepsis.](#)  
Waites MD, Roberts JV, Scott-Coombes D, Al-Hamali S.  
Ann R Coll Surg Engl. 2002 Jan;84(1):26-8.  
PMID: 11890621 [PubMed - indexed for MEDLINE] **Free PMC Article**
30. [Cyclic neutropenia: an unusual disorder of granulopoiesis effectively treated with recombinant granulocyte colony-stimulating factor.](#)  
Lubitz PA, Dower N, Krol AL.  
Pediatr Dermatol. 2001 Sep-Oct;18(5):426-32.  
PMID: 11737691 [PubMed - indexed for MEDLINE]
31. [Neutrophilic dermatoses in two children with idiopathic neutropenia: association with granulocyte colony-stimulating factor \(G-CSF\) therapy.](#)  
Prendiville J, Thiessen P, Mallory SB.  
Pediatr Dermatol. 2001 Sep-Oct;18(5):417-21.  
PMID: 11737689 [PubMed - indexed for MEDLINE]
32. [\[Cyclic neutropenia. Detection of a mutation in the gene for neutrophil elastase \(ELA2\)\].](#)  
Schiller M, Böhm M, Zeidler C, Germeshausen M, Welte K, Luger TA, Bonsmann G.  
Hautarzt. 2001 Sep;52(9):790-6. German.  
PMID: 11572070 [PubMed - indexed for MEDLINE]
33. [Clinical periodontal findings and microflora profiles in children with chronic neutropenia under supervised oral hygiene.](#)  
Okada M, Kobayashi M, Hino T, Kurihara H, Miura K.  
J Periodontol. 2001 Jul;72(7):945-52.  
PMID: 11495144 [PubMed - indexed for MEDLINE]
34. [Liver transplantation for type Ib glycogenosis with reversal of cyclic neutropenia.](#)  
Martinez-Olmos MA, López-Sanromán A, Martín-Vaquero P, Molina-Pérez E, Bárcena R, Vicente E, Candela A, Pallardo-Sánchez LF.  
Clin Nutr. 2001 Aug;20(4):375-7.  
PMID: 11478837 [PubMed - indexed for MEDLINE]
35. [Autoimmune neutropenia with cyclic oscillation of neutrophil count after steroid administration.](#)  
Hirase N, Abe Y, Muta K, Ishikura H, Umemura T, Nawata H, Nishimura J.  
Int J Hematol. 2001 Apr;73(3):346-50.  
PMID: 11345201 [PubMed - indexed for MEDLINE]
36. [Spontaneous remission of cyclic neutropenia during pregnancy. A case report.](#)  
Kimura T, Takakura K, Nakagawa T, Yamamoto Y, Kita N, Noda Y.  
J Reprod Med. 2001 Feb;46(2):141-3.  
PMID: 11255814 [PubMed - indexed for MEDLINE]
37. [Early tooth loss due to cyclic neutropenia: long-term follow-up of one patient.](#)  
da Fonseca MA, Fontes F.  
Spec Care Dentist. 2000 Sep-Oct;20(5):187-90.  
PMID: 11203896 [PubMed - indexed for MEDLINE]
38. [\[Stomatitis in childhood. not always benign\].](#)  
Oudshoorn AM, Ramaker C.  
Ned Tijdschr Geneeskd. 2000 Oct 14;144(42):1985-90. Review. Dutch.  
PMID: 11072515 [PubMed - indexed for MEDLINE]
39. [A patient with cyclic neutropenia complicated by severe persistent neutropenia successfully delivered a healthy baby.](#)  
Abe T, Azuma H, Watanabe A, Shigeakiyo T, Endou S, Pou R, Fukui R, Maeda K, Aono T, Matsumoto T.  
Intern Med. 2000 Aug;39(8):663-6. Review.  
PMID: 10939543 [PubMed - indexed for MEDLINE] **Free Article**
40. [Cyclic neutropenia complicated by renal AA amyloidosis.](#)  
Metin A, Ersoy F, Tinaztepe K, Beşbaş N, Tezcan I, Sanal O.  
Turk J Pediatr. 2000 Jan-Mar;42(1):61-4. Review.  
PMID: 10731873 [PubMed - indexed for MEDLINE]
- [The role of Clostridium septicum in paraneoplastic sepsis.](#)

41. Pelletier JP, Plumbley JA, Rouse EA, Cina SJ.  
Arch Pathol Lab Med. 2000 Mar;124(3):353-6.  
PMID: 10705386 [PubMed - indexed for MEDLINE]
- [\[Recurrent episodes of ulcerative gingivostomatitis associated with cyclic neutropenia\].](#)
42. Sucker C, Djawari J.  
Hautarzt. 1999 Jul;50(7):503-6. German.  
PMID: 10464684 [PubMed - indexed for MEDLINE]
- [Impaired response of granulocyte-committed progenitor cells to stem cell factor and granulocyte colony-stimulating factor in human cyclic neutropenia.](#)
43. Takami A, Nakao S, Koizumi S, Matsuda T.  
Ann Hematol. 1999 Apr;78(4):197-9.  
PMID: 10348153 [PubMed - indexed for MEDLINE]
- [Leukocyte transfusion-associated granulocyte responses in a patient with X-linked hyper-IgM syndrome.](#)
44. Atkinson TP, Smith CA, Hsu YM, Garber E, Su L, Howard TH, Prchal JT, Everson MP, Cooper MD.  
J Clin Immunol. 1998 Nov;18(6):430-9.  
PMID: 9857288 [PubMed - indexed for MEDLINE]
- [Idiopathic thrombocytopenic purpura associated with Crohn's disease.](#)
45. Baudard M, Molina T, Benfiguig K, Bethoux JP, Zittoun R.  
Haematologica. 1998 Jan;83(1):92-3.  
PMID: 9542329 [PubMed - indexed for MEDLINE] **Free Article**
- [Cyclic neutropenia in Crohn's ileocolitis: efficacy of granulocyte colony-stimulating factor.](#)
46. Fata F, Myers P, Addeo J, Grinberg M, Nawabi I, Cappell MS.  
J Clin Gastroenterol. 1997 Jun;24(4):253-6.  
PMID: 9252852 [PubMed - indexed for MEDLINE]
- [Recurrent uveitis in a patient with adult onset cyclic neutropenia associated with increased large granular lymphocytes.](#)
47. Rodriguez A, Yood RA, Condon TJ, Foster CS.  
Br J Ophthalmol. 1997 May;81(5):415. No abstract available.  
PMID: 9227210 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Low levels of plasma stem-cell factor in a patient with cyclic neutropenia.](#)
48. Shinohara K, Ariyoshi K, Takeda K, Kameda N, Ruirong X.  
Am J Hematol. 1997 May;55(1):50-1. No abstract available.  
PMID: 9136920 [PubMed - indexed for MEDLINE]
- [Successful treatment of a generalized human papillomavirus infection with granulocyte-macrophage colony-stimulating factor and interferon gamma immunotherapy in a patient with a primary immunodeficiency and cyclic neutropenia.](#)
49. Gaspari AA, Zalka AD, Payne D, Menegus M, Bunce LA, Abboud CN, Tying SK.  
Arch Dermatol. 1997 Apr;133(4):491-6.  
PMID: 9126013 [PubMed - indexed for MEDLINE]
- [Transient CD80 expression defect in a patient with variable immunodeficiency and cyclic neutropenia.](#)
50. Moser C, Schlesier M, Dräger R, Eibel H, Peter HH.  
Int Arch Allergy Immunol. 1997 Jan;112(1):96-9.  
PMID: 8980471 [PubMed - indexed for MEDLINE]
- [Solid variant of aneurysmal bone cyst in a patient with cyclic neutropenia.](#)
51. Levendoglu-Tugal O, Slim M, Davidian MM, Klein S, Jayabose S.  
Pediatr Hematol Oncol. 1996 Nov-Dec;13(6):549-54.  
PMID: 8940739 [PubMed - indexed for MEDLINE]
- [Granulocyte colony-stimulating factor treatment of cyclic neutropenia with recurrent oral aphthae.](#)
52. Fink-Puches R, Kainz JT, Kahr A, Urban C, Smolle J, Kerl H.  
Arch Dermatol. 1996 Nov;132(11):1399-400. No abstract available.  
PMID: 8915334 [PubMed - indexed for MEDLINE]
- [\[Asthma and cyclic neutropenia\].](#)
53. Salazar Cabrera AN, Berrón Pérez R, Ortega Martell JA, Onuma Takane E.  
Allergol Immunopathol (Madr). 1996 Jan-Feb;24(1):25-8. Spanish.  
PMID: 8882758 [PubMed - indexed for MEDLINE]
- [A case of pregnancy associated with cyclic neutropenia.](#)
54. Yoshida Y, Ueda K, Tomimatsu T, Nakamura Y.  
Acta Obstet Gynecol Scand. 1995 Nov;74(10):836-8. No abstract available.  
PMID: 8533571 [PubMed - indexed for MEDLINE]

- 55. [\[Successful treatment of cyclic neutropenia associated with hyperimmunoglobulin M syndrome using recombinant granulocyte-colony stimulating factor\].](#)  
Simon G, Maródi L.  
Orv Hetil. 1995 Oct 1;136(40):2169-72. Hungarian.  
PMID: 7566951 [PubMed - indexed for MEDLINE]
- 56. [\[2 cases of neutropenic enteropathy and bone marrow hypoplasia. An association not reported in Mexico\].](#)  
Gamboa-Domínguez A, Velázquez Ceceña JL, Reyes-Gutiérrez E.  
Rev Invest Clin. 1995 Jul-Aug;47(4):303-9. Review. Spanish.  
PMID: 8525133 [PubMed - indexed for MEDLINE]
- 57. [\[Adult cyclic neutropenia: acute ileitis as an initial clinical manifestation\].](#)  
Larraín C, Gómez J.  
Rev Med Chil. 1995 Jun;123(6):751-7. Spanish.  
PMID: 8525230 [PubMed - indexed for MEDLINE]
- 58. [Disappearance of neutrophil fluctuations in a child with cyclic neutropenia by combination therapy of granulocyte colony-stimulating factor and high-dose immunoglobulin.](#)  
Ishida Y, Higaki A, Tauchi H, Yokota Y, Matsuda H.  
Acta Paediatr Jpn. 1995 Jun;37(3):388-90.  
PMID: 7544058 [PubMed - indexed for MEDLINE]
- 59. [\[Cyclic neutropenia and treatment with granulocyte colony-stimulating factor \(G-CSF\)\].](#)  
Anninga JK, Weening RS.  
Ned Tijdschr Geneeskd. 1995 Feb 25;139(8):394-7. Dutch.  
PMID: 7885503 [PubMed - indexed for MEDLINE]
- 60. [Childhood onset cyclic neutropenia: G-CSF therapy restores neutrophil count but does not influence superoxide anion and cytokine release by neutrophils.](#)  
Marcolongo R, Zambello R, Trentin L, Cassatella M, Gasparotto G, Agostini C.  
Br J Haematol. 1995 Feb;89(2):277-81.  
PMID: 7532983 [PubMed - indexed for MEDLINE]
- 61. [Recombinant human granulocyte colony stimulating factor in cyclic neutropenia: use of a new 3-day-a-week regimen.](#)  
Jayabose S, Tugal O, Sandoval C, Li K.  
Am J Pediatr Hematol Oncol. 1994 Nov;16(4):338-40.  
PMID: 7526722 [PubMed - indexed for MEDLINE]
- 62. [Contrasting effects of recombinant human granulocyte-macrophage colony-stimulating factor \(CSF\) and granulocyte CSF treatment on the cycling of blood elements in childhood-onset cyclic neutropenia.](#)  
Wright DG, Kenney RF, Oette DH, LaRussa VF, Boxer LA, Malech HL.  
Blood. 1994 Aug 15;84(4):1257-67.  
PMID: 7519479 [PubMed - indexed for MEDLINE] **Free Article**
- 63. [Cyclic neutropenia.](#)  
Malhotra OP, Passi P, Saxena R.  
J Assoc Physicians India. 1994 Aug;42(8):641-2. No abstract available.  
PMID: 7868563 [PubMed - indexed for MEDLINE]
- 64. [Resolution of cyclic neutropenia by intramuscular gamma globulin in a case of common variable immunodeficiency with predominantly antibody deficiency.](#)  
Agarwal BR, Currimbhoy Z.  
Indian Pediatr. 1994 Mar;31(3):320-2. No abstract available.  
PMID: 7534749 [PubMed - indexed for MEDLINE]
- 65. [\[rhG-CSF treatment in cyclic neutropenia. Continuous versus intermittent rhG-CSF treatment in cyclic neutropenia\].](#)  
Nielsen H, Hansen PB.  
Ugeskr Laeger. 1994 Jan 17;156(3):324-5. Danish.  
PMID: 8296427 [PubMed - indexed for MEDLINE]
- 66. [Cyclic neutropenia: report of a case with a 15-year follow up.](#)  
Baer PN, Iacono VJ.  
Periodontal Clin Investig. 1994 Spring;16(1):14-9. No abstract available.  
PMID: 9055683 [PubMed - indexed for MEDLINE]
- 67. [Pregnancy in patients with cyclic neutropenia.](#)  
Polcz TE, Stiller RJ, Whetham JC.  
Am J Obstet Gynecol. 1993 Aug;169(2 Pt 1):393-4.  
PMID: 8362953 [PubMed - indexed for MEDLINE]
- 68. [Periodical gingival bleeding as a presenting symptom of periodontitis due to underlying cyclic neutropenia. Case report.](#)

68. Yamalik N, Yavuzylmaz E, Çağlayan F, Tezcan I, Berkel I, Ersoy F, Sanal O. Aust Dent J. 1993 Aug;38(4):272-6. PMID: 8216033 [PubMed - indexed for MEDLINE]
69. [Adult-onset cyclic neutropenia responsive to cyclosporine therapy in a patient with ankylosing spondylitis.](#) Storek J, Glaspy JA, Grody WW, Susi E, Slater ED. Am J Hematol. 1993 Jun;43(2):139-43. PMID: 7688178 [PubMed - indexed for MEDLINE]
70. [Recombinant human granulocyte colony-stimulating factor therapy for cyclic neutropenia associated with common variable immunodeficiency.](#) Tsuda M, Urakami T, Watanabe S, Shimizu H, Inana I, Kikkawa Y, Kitagawa T. Acta Paediatr Jpn. 1993 Apr;35(2):124-6. Review. PMID: 7684881 [PubMed - indexed for MEDLINE]
71. [Reversible adult-onset cyclic haematopoiesis with a cycle length of 100 days.](#) Birgens HS, Karle H. Br J Haematol. 1993 Feb;83(2):181-6. PMID: 8457464 [PubMed - indexed for MEDLINE]
72. [Recurrent impetiginized eczema as a presenting manifestation of cyclic neutropenia.](#) Parodi A, Parentini AM, Rebora A. Clin Exp Dermatol. 1993 Jan;18(1):80-2. PMID: 8440064 [PubMed - indexed for MEDLINE]
73. [Cyclic neutropenia and severe hypogammaglobulinemia in a patient with excess of CD8-positive T lymphocytes: response to G-CSF therapy.](#) Ferrero D, Pregno P, Omedè P, Dianzani U, Carbone A, di Celle PF, Gallo E. Haematologica. 1993 Jan-Feb;78(1):49-52. PMID: 7684013 [PubMed - indexed for MEDLINE]
74. [Crohn's disease associated with cyclic neutropenia.](#) Lamport RD, Katz S, Eskreis D. Am J Gastroenterol. 1992 Nov;87(11):1638-42. PMID: 1442691 [PubMed - indexed for MEDLINE]
75. [\[Cyclic neutropenia: a disease or a syndrome?\].](#) Polovtseva TV, Nefedova EV, Porkhovatyĭ Sla, Finogenova NA, Man'ko VM, Khakhalin LN, Shereshkov SI. Gematol Transfuziol. 1992 Sep-Oct;37(9-10):9-13. Russian. PMID: 1490579 [PubMed - indexed for MEDLINE]
76. [Spontaneous remission in adult-onset cyclic neutropenia.](#) Kashimura M, Someya K. Am J Hematol. 1992 Aug;40(4):317. No abstract available. PMID: 1503088 [PubMed - indexed for MEDLINE]
77. [A case report of familial cyclic neutropenia.](#) Inoue T, Tani K, Tajiri M, Ishida Y, Seguchi M, Tanaka H, Asano S, Kaneko T, Matsumoto N. Tohoku J Exp Med. 1992 Jun;167(2):107-13. PMID: 1282277 [PubMed - indexed for MEDLINE] **Free Article**
78. [Granulocyte colony stimulating factor in the management of chronic neutropenia.](#) Marlon PV, Wright SJ, Taylor KM. Med J Aust. 1992 May 18;156(10):729-31. PMID: 1377771 [PubMed - indexed for MEDLINE]
79. [Defects of the mitochondrial respiratory chain complexes in three pediatric cases with hypotonia and cardiac involvement.](#) Figarella-Branger D, Pellissier JF, Scheiner C, Wernert F, Desnuelle C. J Neurol Sci. 1992 Mar;108(1):105-13. Review. PMID: 1320661 [PubMed - indexed for MEDLINE]
80. [Fluctuations in serum cytokine levels in the patient with cyclic neutropenia.](#) Yujiri T, Shinohara K, Kurimoto F. Am J Hematol. 1992 Feb;39(2):144-5. PMID: 1372466 [PubMed - indexed for MEDLINE]
81. [Intermittent rG-CSF treatment in cyclic neutropenia.](#) Danielsson L, Harmenberg J. Eur J Haematol. 1992 Feb;48(2):123-4. No abstract available. PMID: 1372269 [PubMed - indexed for MEDLINE]

- 82. [Cyclic neutropenia: a cause of recurrent aphthous stomatitis not to be missed.](#)  
Ródenas JM, Ortego N, Herranz MT, Tercedor J, Pinar A, Quero JH.  
Dermatology. 1992;184(3):205-7.  
PMID: 1392113 [PubMed - indexed for MEDLINE]
- 83. [Cyclic neutropenia--unusual cause of acute abdomen. Report of a case.](#)  
O'Hanrahan T, Dark P, Irving MH.  
Dis Colon Rectum. 1991 Dec;34(12):1125-7.  
PMID: 1959464 [PubMed - indexed for MEDLINE]
- 84. [\[Familial cyclic neutropenia\].](#)  
Vértesi G, Zsiros J, Nagy K.  
Orv Hetil. 1991 Oct 27;132(43):2383-6. Review. Hungarian.  
PMID: 1945381 [PubMed - indexed for MEDLINE]
- 85. [Treatment of cyclic neutropenia with very low doses of GM-CSF.](#)  
Kurzrock R, Talpaz M, Gutterman JU.  
Am J Med. 1991 Sep;91(3):317-8. No abstract available.  
PMID: 1892155 [PubMed - indexed for MEDLINE]
- 86. [Myeloid progenitor cell growth characteristics and effect of G-CSF in a patient with congenital cyclic neutropenia.](#)  
Tsunogake S, Nagashima S, Maekawa R, Takano N, Kajitani H, Saito K, Enokihara H, Furusawa S, Shishido H.  
Int J Hematol. 1991 Jun;54(3):251-6.  
PMID: 1720982 [PubMed - indexed for MEDLINE]
- 87. [Recombinant human granulocyte-macrophage colony stimulating factor \(rHuGM-CSF\) in cyclic neutropenia.](#)  
Locatelli F, Pedrazzoli P, Zecca M, Maccario R, Giorgiani G, Prete L, Nespoli L, Severi F.  
Haematologica. 1991 May-Jun;76(3):238-9.  
PMID: 1743595 [PubMed - indexed for MEDLINE]
- 88. [Serum levels of G-CSF, M-CSF and GM-CSF in a patient with cyclic neutropenia.](#)  
Misago M, Kikuchi M, Tsukada J, Hanamura T, Kamachi S, Eto S.  
Eur J Haematol. 1991 May;46(5):312-3. No abstract available.  
PMID: 1710576 [PubMed - indexed for MEDLINE]
- 89. [Pregnancy in cyclic neutropenia.](#)  
Pajor A, Szakács Z.  
Gynecol Obstet Invest. 1991;32(3):189-90.  
PMID: 1757002 [PubMed - indexed for MEDLINE]
- 90. [Clinical effect of recombinant human granulocyte colony-stimulating factor \(rhG-CSF\) on various types of neutropenia including cyclic neutropenia.](#)  
Hirashima K, Yoshida Y, Asano S, Takaku F, Omine M, Furusawa S, Abe T, Abe T, Dohy H, Tajiri M, et al.  
Biotherapy. 1991;3(4):297-307.  
PMID: 1723891 [PubMed - indexed for MEDLINE]
- 91. [Disappearance of neutrophil oscillations in a child with cyclic neutropenia after treatment with recombinant human granulocyte colony-stimulating factor.](#)  
Hanada T, Ono I.  
Eur J Haematol. 1990 Sep;45(3):181-2. No abstract available.  
PMID: 1699787 [PubMed - indexed for MEDLINE]
- 92. [Differential effect of GM-CSF and G-CSF in cyclic neutropenia.](#)  
Freund MR, Luft S, Schöber C, Heussner P, Schrezenmaier H, Porzsoft F, Welte K.  
Lancet. 1990 Aug 4;336(8710):313. No abstract available.  
PMID: 1695985 [PubMed - indexed for MEDLINE]
- 93. [Ubenimex treatment in congenital cyclic neutropenia.](#)  
Aihara M, Sasaki K, Yoshida Y.  
Tohoku J Exp Med. 1990 Jun;161(2):85-90.  
PMID: 2264063 [PubMed - indexed for MEDLINE] **Free Article**
- 94. [Childhood cyclic neutropenia treated with recombinant human granulocyte colony stimulating factor.](#)  
Hanada T, Ono I, Nagasawa T.  
Br J Haematol. 1990 May;75(1):135-7. No abstract available.  
PMID: 1695854 [PubMed - indexed for MEDLINE]
- 95. [\[Cyclic neutropenia complicated of non-Hodgkin lymphoma\].](#)  
Arai N, Umeda M, Shirai T.  
Rinsho Ketsueki. 1990 Apr;31(4):516-20. Japanese.  
PMID: 2166174 [PubMed - indexed for MEDLINE]



- 96. [Cyclic neutropenia with colonic perforation and nonhealing colocutaneous fistula.](#)  
Langer JC, Papa MZ, Hoffman MA, Loeff DS, Pearl RH, Filler RM.  
J Pediatr Surg. 1990 Mar;25(3):346-8.  
PMID: 2313507 [PubMed - indexed for MEDLINE]
- 97. [Inhibitor of granulopoiesis in human cyclic neutropenia.](#)  
Cukrová V, Klamová H.  
Folia Haematol Int Mag Klin Morphol Blutforsch. 1990;117(5):647-52.  
PMID: 1709897 [PubMed - indexed for MEDLINE]
- 98. [Cyclic neutropenia: a case of asymptomatic appendicitis.](#)  
Goldschneider KR, Forouhar FA.  
Ann Clin Lab Sci. 1989 Nov-Dec;19(6):429-34. Erratum in: Ann Clin Lab Sci 1990 Jul-Aug;20(4):300.  
PMID: 2604379 [PubMed - indexed for MEDLINE]
- 99. [Massive giant cell epulis in a child with familial cyclic neutropenia.](#)  
Chadwick BL, Crawford PJ, Aldred MJ.  
Br Dent J. 1989 Oct 21;167(8):279-81.  
PMID: 2590585 [PubMed - indexed for MEDLINE]
- 100. [Transient cyclic neutropenia following GM-CSF in a patient with chronic granulocytic leukemia transplanted with HLA-identical T cell-depleted donor bone marrow.](#)  
Gluckman E, Socie G, Yver A, Esperou H, Devergie A, Stern A.  
Bone Marrow Transplant. 1989 Sep;4(5):591-2.  
PMID: 2676045 [PubMed - indexed for MEDLINE]
- 101. [Cyclic neutropenia in a family with evidence of monocytes, lymphocytes, plasmocytes, eosinophils and basophils cycling.](#)  
Cáp J, Mikulecky M.  
Eur J Haematol. 1989 Aug;43(2):188-9. No abstract available.  
PMID: 2792329 [PubMed - indexed for MEDLINE]
- 102. [Growth of bone marrow CFU-GM in a case of cyclical neutropenia. Preliminary report.](#)  
Ghizzi A, De Caro L, Costa R, Berti P.  
Boll Soc Ital Biol Sper. 1989 Jul;65(7):617-24.  
PMID: 2597416 [PubMed - indexed for MEDLINE]
- 103. [Adult-onset cyclic bicytopenia: a case report and review of treatment of cyclic hematopoiesis.](#)  
Tefferi A, Solberg LA Jr, Pettitt RM, Willis LG.  
Am J Hematol. 1989 Mar;30(3):181-5. Review.  
PMID: 2644823 [PubMed - indexed for MEDLINE]
- 104. [Pseudotumor cerebri induced by danazol.](#)  
Hamed LM, Glaser JS, Schatz NJ, Perez TH.  
Am J Ophthalmol. 1989 Feb 15;107(2):105-10.  
PMID: 2913802 [PubMed - indexed for MEDLINE]
- 105. [Clostridium septicum infection and associated malignancy. Report of 2 cases and review of the literature.](#)  
Kornbluth AA, Danzig JB, Bernstein LH.  
Medicine (Baltimore). 1989 Jan;68(1):30-7. Review.  
PMID: 2642585 [PubMed - indexed for MEDLINE]
- 106. [\[Colony stimulating activity, colony inhibiting activity and immunological studies in a case of adult-onset cyclic neutropenia\].](#)  
Arai N, Umeda M, Hara A, Shirai T.  
Nippon Ketsueki Gakkai Zasshi. 1988 Aug;51(5):879-84. Japanese. No abstract available.  
PMID: 3264652 [PubMed - indexed for MEDLINE]
- 107. [\[Present-day status of glycogenosis Ib. Report of a new case\].](#)  
Morena Hinojosa V, Fullana Montoro A, Alvarez-Coca González J, González Pérez-Venero M, Gracia Bouthelie R, Peralta Serrano A, Benlloch Marín T, Fontán Casariego G.  
An Esp Pediatr. 1988 Jun;28(6):557-60. Spanish.  
PMID: 3195858 [PubMed - indexed for MEDLINE]
- 108. [\[Adult-onset cyclic neutropenia: a case report\].](#)  
Marukawa M, Sekito N, Aoyama S, Osada K, Takeuchi M, Takahashi I, Kimura I, Kobashi H, Kitajima K, Sanada H.  
Rinsho Ketsueki. 1988 Apr;29(4):565-70. Japanese. No abstract available.  
PMID: 3404672 [PubMed - indexed for MEDLINE]
- 109. [Cyclic neutropenia and pregnancy.](#)  
Katz VL, Egley CC, Bowes WA Jr.  
South Med J. 1988 Apr;81(4):527-8.  
PMID: 3358180 [PubMed - indexed for MEDLINE]



- [Cyclic neutropenia terminating in permanent agranulocytosis.](#)
- 110. Boesen P.  
Acta Med Scand. 1988;223(1):89-91.  
PMID: 3348107 [PubMed - indexed for MEDLINE]
  
- [Cyclosporin A in adult-onset cyclic neutropenia.](#)
- 111. Selleri C, Catalano L, Alfinito F, De Rosa G, Vaglio S, Rotoli B.  
Br J Haematol. 1988 Jan;68(1):137-8. No abstract available.  
PMID: 3345290 [PubMed - indexed for MEDLINE]
  
- [Aeromonas hydrophila wound infection in a patient with cyclic neutropenia following a piranha bite.](#)
- 112. Revord ME, Goldfarb J, Shurin SB.  
Pediatr Infect Dis J. 1988 Jan;7(1):70-1. No abstract available.  
PMID: 3340462 [PubMed - indexed for MEDLINE]
  
- [Abnormalities of T cell subsets in a patient with cyclic neutropenia.](#)
- 113. Ucci G, Danova M, Riccardi A, Brugnattelli S, Girino M, Corridoni S, Trespi A.  
Acta Haematol. 1987;77(3):177-9.  
PMID: 3113159 [PubMed - indexed for MEDLINE]
  
- [Unusual inclusions in mature polymorphonuclear neutrophils of cyclic neutropenia.](#)
- 114. Ohta S, Shimada M, Katsura T, Matsukawa S, Maeda M.  
Am J Pediatr Hematol Oncol. 1987 Fall;9(3):197-9.  
PMID: 2823625 [PubMed - indexed for MEDLINE]
  
- [Cyclic neutropenia in identical twins.](#)
- 115. Chusid MJ, Casper JT, Camitta BM, McCreadie SR.  
Am J Med. 1986 May;80(5):994-6.  
PMID: 3706384 [PubMed - indexed for MEDLINE]
  
- [Cyclic neutropenia as a premalignant manifestation of acute lymphoblastic leukemia.](#)
- 116. Lensink DB, Barton A, Appelbaum FR, Hammond WP 4th.  
Am J Hematol. 1986 May;22(1):9-16.  
PMID: 3456703 [PubMed - indexed for MEDLINE]
  
- [Management of the ileocecal syndrome. Neutropenic enterocolitis.](#)
- 117. Kunkel JM, Rosenthal D.  
Dis Colon Rectum. 1986 Mar;29(3):196-9.  
PMID: 3943436 [PubMed - indexed for MEDLINE]
  
- [Granulocyte dysfunction and myotonic dystrophy.](#)
- 118. Friedenberg WR, Marx JJ Jr, Hansotia P, Gottschalk PG.  
J Neurol Sci. 1986 Mar;73(1):1-10.  
PMID: 3009720 [PubMed - indexed for MEDLINE]
  
- [\[Cyclic neutropenia\].](#)
- 119. Huizinga T, Janssens A, van Kersen F, Weening RS.  
Ned Tijdschr Geneeskd. 1986 Feb 15;130(7):311-3. Dutch. No abstract available.  
PMID: 3951636 [PubMed - indexed for MEDLINE]
  
- [Cyclic neutropenia: orthodontic treatment and guidelines for therapy.](#)
- 120. Hartman KR, Badger G.  
J Pedod. 1986 Fall;11(1):98-104. No abstract available.  
PMID: 2946844 [PubMed - indexed for MEDLINE]
  
- [Cyclic neutropenia: a literature review and report of case.](#)
- 121. Spencer P, Fleming JE.  
ASDC J Dent Child. 1985 Mar-Apr;52(2):108-13. No abstract available.  
PMID: 3857240 [PubMed - indexed for MEDLINE]
  
- [Prepubertal periodontitis affecting the deciduous and permanent dentition in a patient with cyclic neutropenia. A case report and discussion.](#)
- 122. Prichard JF, Ferguson DM, Windmiller J, Hurt WC.  
J Periodontol. 1984 Feb;55(2):114-22.  
PMID: 6584586 [PubMed - indexed for MEDLINE]
  
- [Lithium carbonate treatment in familial cyclic neutropenia.](#)
- 123. Williams DM, Jones JV Jr.  
Am J Clin Pathol. 1984 Jan;81(1):120-2.  
PMID: 6419581 [PubMed - indexed for MEDLINE]

- 124. [A case of diffuse lymphoid hyperplasia of the colon associated with cyclic neutropenia.](#)  
Tamura T, Saito T, Takehara H, Komi N, Sano T, Ii K, Hizawa K.  
Tokushima J Exp Med. 1983 Dec;30(3-4):75-7. No abstract available.  
PMID: 6678505 [PubMed - indexed for MEDLINE]
- 125. [Lithium therapy for cyclic neutropenia in children.](#)  
Ishii E, Hara T, Miyazaki S, Fujiwara T, Goya N.  
Scand J Haematol. 1983 Sep;31(3):193-6.  
PMID: 6879105 [PubMed - indexed for MEDLINE]
- 126. [Cycling of peripheral blood and marrow lymphocytes in cyclic neutropenia.](#)  
Engelhard D, Landreth KS, Kapoor N, Kincade PW, De Bault LE, Theodore A, Good RA.  
Proc Natl Acad Sci U S A. 1983 Sep;80(18):5734-8.  
PMID: 6351065 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 127. [Cyclic neutropenia: amplification of granulocyte oscillations by lithium and long-term suppression of cycling by plasmapheresis.](#)  
von Schulthess GK, Fehr J, Dahinden C.  
Blood. 1983 Aug;62(2):320-6.  
PMID: 6871466 [PubMed - indexed for MEDLINE] **Free Article**
- 128. [Cyclic hematopoiesis: human cyclic neutropenia.](#)  
Lange RD.  
Exp Hematol. 1983 Jul;11(6):435-51. Review.  
PMID: 6352296 [PubMed - indexed for MEDLINE]
- 129. [Do neutrophils play a major role in elastin turnover of normal tissues?](#)  
Janoff A.  
Am Rev Respir Dis. 1983 Jun;127(6):782-3.  
PMID: 6859661 [PubMed - indexed for MEDLINE]
- 130. [Cyclic neutropenia: case report of two siblings.](#)  
Long LM Jr, Jacoway JR, Bawden JW.  
Pediatr Dent. 1983 Jun;5(2):142-4. No abstract available.  
PMID: 6575366 [PubMed - indexed for MEDLINE]
- 131. [Clostridial species in the pathogenesis of necrotizing enterocolitis in patients with neutropenia.](#)  
Hopkins DG, Kushner JP.  
Am J Hematol. 1983 May;14(3):289-95.  
PMID: 6846331 [PubMed - indexed for MEDLINE]
- 132. [Human cyclic neutropenia transferred by allogeneic bone marrow grafting.](#)  
Krance RA, Spruce WE, Forman SJ, Rosen RB, Hecht T, Hammond WP, Blume KG.  
Blood. 1982 Dec;60(6):1263-6.  
PMID: 6753968 [PubMed - indexed for MEDLINE] **Free Article**
- 133. [\[A case of cyclic neutropenia with a marked cyclic fluctuation of CFU-C concentration\].](#)  
Jinnai I, Amenomori T, Yoshida Y, Matsuo T, Kuriyama K, Tomonaga M, Kamihira S, Ichimaru M.  
Rinsho Ketsueki. 1982 Nov;23(11):1741-9. Japanese. No abstract available.  
PMID: 7166812 [PubMed - indexed for MEDLINE]
- 134. [Acquired cyclic neutropenia: successful treatment with prednisone.](#)  
Rodgers GM, Shuman MA.  
Am J Hematol. 1982 Aug;13(1):83-9.  
PMID: 7137168 [PubMed - indexed for MEDLINE]
- 135. [Oral manifestations in cyclic neutropenia.](#)  
Scully C, MacFadyen E, Campbell A.  
Br J Oral Surg. 1982 Jun;20(2):96-101. No abstract available.  
PMID: 6954986 [PubMed - indexed for MEDLINE]
- 136. [T-lymphocyte cycling in human cyclic neutropenia: effects of lithium in vitro and in vivo.](#)  
Borkowsky W, Shenkman L, Rausen A.  
Clin Immunol Immunopathol. 1982 Jun;23(3):586-92. No abstract available.  
PMID: 6288297 [PubMed - indexed for MEDLINE]
- 137. [\[Chronic neutropenia \(author's trans\)\].](#)  
Speer C, Zappel H, Gahr M.  
Dtsch Med Wochenschr. 1982 Mar 5;107(9):339-41. German.  
PMID: 7060498 [PubMed - indexed for MEDLINE]
- 138. [Cyclic neutropenia and T lymphocyte suppression of granulopoiesis: abrogation of the neutropenic cycles by lithium carbonate.](#)

138. Verma DS, Spitzer G, Zander AR, Dicke KA, McCredie KB.  
Leuk Res. 1982;6(4):567-76.  
PMID: 6216375 [PubMed - indexed for MEDLINE]
- [Manifestations and treatment of periodontal disease in a patient suffering from cyclic neutropenia.](#)
139. Rylander H, Ericsson I.  
J Clin Periodontol. 1981 Apr;8(2):77-87.  
PMID: 6941981 [PubMed - indexed for MEDLINE]
- [Cyclic neutropenia. A tale of two brothers and their family.](#)
140. Lange RD, Crowder CG, Cruz P, Hawkinson SW, Lozzio CB, Machado E, Painter P, Terry W, Jones JB.  
Am J Pediatr Hematol Oncol. 1981 Summer;3(2):127-33.  
PMID: 6795955 [PubMed - indexed for MEDLINE]
- [\[Myocardial fibrosis in Shwachman's syndrome \(author's transl\)\].](#)
141. Guerrero J, López Barea F, Calvo C, Moreno F, Solas I.  
An Esp Pediatr. 1979 Jun-Jul;12(6-7):542-8. Spanish.  
PMID: 484946 [PubMed - indexed for MEDLINE]
- [Some immunological and haematological aspects of human cyclic neutropenia.](#)
142. Andrews RB, Dunn CD, Jolly J, Jones JB, Lange RD.  
Scand J Haematol. 1979 Feb;22(2):97-104.  
PMID: 311938 [PubMed - indexed for MEDLINE]
- [Paroxysmal nocturnal hemoglobinuria: the significance of iron deficiency, pancytopenia, and cyclic neutropenia. Case report.](#)
143. Koppes GM, Kerr RO.  
Mil Med. 1978 Apr;143(4):285-7. No abstract available.  
PMID: 96367 [PubMed - indexed for MEDLINE]
- [Correction of human cyclic neutropenia with prednisolone.](#)
144. Wright DG, Fauci AS, Dale DC, Wolff SM.  
N Engl J Med. 1978 Feb 9;298(6):295-300.  
PMID: 622086 [PubMed - indexed for MEDLINE]
- [Cell kinetics in human cyclic neutropenia.](#)
145. Dresch C, Thevenieau D, Castro-Malaspina H, Faille A.  
Scand J Haematol. 1977 Jul;19(1):14-24.  
PMID: 882837 [PubMed - indexed for MEDLINE]
- [\[A case of cyclic neutropenia with special reference to the function of neutrophil mobilization \(author's transl\)\].](#)
146. Uyama Y, Mizui M, Tanaka H, Ninomiya T, Yamada T.  
Rinsho Ketsueki. 1976 Dec;17(12):1309-19. Japanese. No abstract available.  
PMID: 1035276 [PubMed - indexed for MEDLINE]
- [\[Colony-stimulating activity in urine and serum in a child with cyclic neutropenia\].](#)
147. Bodenstein H, Kalden JR, Friedrichs W, Kissling M, Troug P, von der Hardt H.  
Blut. 1976 Apr;32(4):285-8. German.  
PMID: 1083268 [PubMed - indexed for MEDLINE]
- [Alteration of colony-stimulating factor output, endotoxemia, and granulopoiesis in cyclic neutropenia.](#)
148. Greenberg PL, Bax J, Levin J, Andrews TM.  
Am J Hematol. 1976;1(4):375-85.  
PMID: 1087533 [PubMed - indexed for MEDLINE]
- [\[A family of cyclic neutropenia \(author's transl\)\].](#)
149. Nakamura K, Tomisawa T.  
Rinsho Ketsueki. 1975 Dec;16(12):1131-40. Japanese. No abstract available.  
PMID: 1240982 [PubMed - indexed for MEDLINE]
- [Cell production and cell function in human cyclic neutropenia.](#)
150. Brandt L, Forssman O, Mitelman F, Odeberg H, Olofsson T, Olsson I, Svensson B.  
Scand J Haematol. 1975 Oct;15(3):228-40.  
PMID: 173016 [PubMed - indexed for MEDLINE]
- [\[A case of cyclic neutropenia \(author's transl\)\].](#)
151. Tajiri M, Ishida K, Ariyama S, Ariyoshi K, Nakashima K.  
Rinsho Ketsueki. 1975 May;16(5):537-42. Japanese. No abstract available.  
PMID: 1172052 [PubMed - indexed for MEDLINE]
- [Cyclic neutropenia.](#)
152. Haghshenas M, Banihashemi A, Mohallatee EA.

Blut. 1974 Mar;28(3):199-201. No abstract available.  
PMID: 4817691 [PubMed - indexed for MEDLINE]

[Rehabilitative management of cyclic neutropenia.](#)

153. Binon PP, Dykema RW.  
J Prosthet Dent. 1974 Jan;31(1):52-60. No abstract available.  
PMID: 4587623 [PubMed - indexed for MEDLINE]

[Infected oral lesions of cyclic neutropenia.](#)

154. Degnan EJ, Perlov AN.  
J Oral Med. 1973 Jan-Mar;28(1):29-31. No abstract available.  
PMID: 4630516 [PubMed - indexed for MEDLINE]

[Cyclic neutropenia; nursing care study.](#)

155. Montford A.  
Nurs Times. 1968 Nov 8;64(45):1506-8. No abstract available.  
PMID: 4972790 [PubMed - indexed for MEDLINE]

[\[Cyclic neutropenia\].](#)

156. Stejskal J.  
Monatsschr Kinderheilkd. 1967 Jul;115(7):419-21. German. No abstract available.  
PMID: 5607576 [PubMed - indexed for MEDLINE]

[\[Cyclic neutropenia? Longitudinal study of a clinical case\].](#)

157. Gentili A, Gelli GP.  
Arch Ital Pediatr Pueric. 1966 Jan-Feb;24(1):3-46. Italian. No abstract available.  
PMID: 5930657 [PubMed - indexed for MEDLINE]

# PubMed

Search: Cyclic neutropenia and ELA2

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (21)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 21

1. [Cyclic neutropenia and severe congenital neutropenia in patients with a shared ELANE mutation and paternal haplotype: evidence for phenotype determination by modifying genes.](#)  
Newburger PE, Pindyck TN, Zhu Z, Bolyard AA, Aprikyan AA, Dale DC, Smith GD, Boxer LA.  
Pediatr Blood Cancer. 2010 Aug;55(2):314-7.  
PMID: 20582973 [PubMed - indexed for MEDLINE]
2. [Contributions to neutropenia from PFAAP5 \(N4BP2L2\), a novel protein mediating transcriptional repressor cooperation between Gfi1 and neutrophil elastase.](#)  
Salipante SJ, Rojas ME, Korkmaz B, Duan Z, Wechsler J, Benson KF, Person RE, Grimes HL, Horwitz MS.  
Mol Cell Biol. 2009 Aug;29(16):4394-405. Epub 2009 Jun 8.  
PMID: 19506020 [PubMed - indexed for MEDLINE] **Free PMC Article**
3. [Ela2 mutations and clinical manifestations in familial congenital neutropenia.](#)  
Shiohara M, Shigemura T, Saito S, Tanaka M, Yanagisawa R, Sakashita K, Asada H, Ishii E, Koike K, Chin M, Kobayashi M, Koike K.  
J Pediatr Hematol Oncol. 2009 May;31(5):319-24.  
PMID: 19415009 [PubMed - indexed for MEDLINE]
4. [Progenitor cell self-renewal and cyclic neutropenia.](#)  
Dingli D, Antal T, Traulsen A, Pacheco JM.  
Cell Prolif. 2009 Jun;42(3):330-8. Epub 2009 Apr 21.  
PMID: 19397594 [PubMed - indexed for MEDLINE] **Free PMC Article**
5. [Genetic and molecular diagnosis of severe congenital neutropenia.](#)  
Ward AC, Dale DC.  
Curr Opin Hematol. 2009 Jan;16(1):9-13. Review.  
PMID: 19057199 [PubMed - indexed for MEDLINE] **Free PMC Article**
6. [Cyclic neutropenia in mammals.](#)  
Pacheco JM, Traulsen A, Antal T, Dingli D.  
Am J Hematol. 2008 Dec;83(12):920-1.  
PMID: 18951469 [PubMed - indexed for MEDLINE]
7. [Intermittent chronic neutropenia in a patient with familial Mediterranean fever.](#)  
Ganiou Tidjani K, Ailal F, Najib J, Bellanné-Chantelot C, Donadieu J, Bousfiha AA.  
Pediatr Blood Cancer. 2008 Nov;51(5):701-3.  
PMID: 18661496 [PubMed - indexed for MEDLINE]
8. [Severe congenital neutropenia and the unfolded protein response.](#)  
Xia J, Link DC.  
Curr Opin Hematol. 2008 Jan;15(1):1-7. Review.  
PMID: 18043239 [PubMed - indexed for MEDLINE]
9. [Mutations of the ELA2 gene found in patients with severe congenital neutropenia induce the unfolded protein response and cellular apoptosis.](#)  
Grenda DS, Murakami M, Ghatak J, Xia J, Boxer LA, Dale D, Dinauer MC, Link DC.  
Blood. 2007 Dec 15;110(13):4179-87. Epub 2007 Aug 30.  
PMID: 17761833 [PubMed - indexed for MEDLINE] **Free PMC Article**
10. [Double de novo mutations of ELA2 in cyclic and severe congenital neutropenia.](#)  
Salipante SJ, Benson KF, Luty J, Hadavi V, Kariminejad R, Kariminejad MH, Rezaei N, Horwitz MS.  
Hum Mutat. 2007 Sep;28(9):874-81.  
PMID: 17436313 [PubMed - indexed for MEDLINE]
11. [Neutrophil elastase in cyclic and severe congenital neutropenia.](#)  
Horwitz MS, Duan Z, Korkmaz B, Lee HH, Mealiffe ME, Salipante SJ.  
Blood. 2007 Mar 1;109(5):1817-24. Epub 2006 Oct 19. Review.  
PMID: 17053055 [PubMed - indexed for MEDLINE] **Free PMC Article**
12. [Mutations in neutrophil elastase causing congenital neutropenia lead to cytoplasmic protein accumulation and induction of the unfolded protein response.](#)  
Köllner I, Sodeik B, Schreek S, Heyn H, von Neuhoff N, Germeshausen M, Zeidler C, Krüger M, Schlegelberger B, Welte K, Beger C.

Blood. 2006 Jul 15;108(2):493-500. Epub 2006 Mar 21.

PMID: 16551967 [PubMed - indexed for MEDLINE] **Free Article**

- 13. [A comparison of the defective granulopoiesis in childhood cyclic neutropenia and in severe congenital neutropenia.](#)  
Sera Y, Kawaguchi H, Nakamura K, Sato T, Habara M, Okada S, Ishikawa N, Kojima S, Katoh O, Kobayashi M.  
Haematologica. 2005 Aug;90(8):1032-41.  
PMID: 16079102 [PubMed - indexed for MEDLINE] **Free Article**
- 14. [Hereditary neutropenia: dogs explain human neutrophil elastase mutations.](#)  
Horwitz M, Benson KF, Duan Z, Li FQ, Person RE.  
Trends Mol Med. 2004 Apr;10(4):163-70. Review.  
PMID: 15059607 [PubMed - indexed for MEDLINE]
- 15. [Mutations in the ELA2 gene correlate with more severe expression of neutropenia: a study of 81 patients from the French Neutropenia Register.](#)  
Bellanné-Chantelot C, Clauin S, Leblanc T, Cassinat B, Rodrigues-Lima F, Beaufile S, Vaury C, Barkaoui M, Fenneteau O, Maier-Redelsperger M, Chomienne C, Donadieu J.  
Blood. 2004 Jun 1;103(11):4119-25. Epub 2004 Feb 12.  
PMID: 14962902 [PubMed - indexed for MEDLINE] **Free Article**
- 16. [Role of neutrophil elastase in bone marrow failure syndromes: molecular genetic revival of the chalone hypothesis.](#)  
Horwitz M, Benson KF, Duan Z, Person RE, Wechsler J, Williams K, Albani D, Li FQ.  
Curr Opin Hematol. 2003 Jan;10(1):49-54. Review.  
PMID: 12483111 [PubMed - indexed for MEDLINE]
- 17. [Mice expressing a neutrophil elastase mutation derived from patients with severe congenital neutropenia have normal granulopoiesis.](#)  
Grenda DS, Johnson SE, Mayer JR, McLemore ML, Benson KF, Horwitz M, Link DC.  
Blood. 2002 Nov 1;100(9):3221-8.  
PMID: 12384420 [PubMed - indexed for MEDLINE] **Free Article**
- 18. [Cyclic neutropenia.](#)  
Dale DC, Bolyard AA, Aprikyan A.  
Semin Hematol. 2002 Apr;39(2):89-94. Review.  
PMID: 11957190 [PubMed - indexed for MEDLINE]
- 19. [\[Cyclic neutropenia. Detection of a mutation in the gene for neutrophil elastase \(ELA2\)\].](#)  
Schiller M, Böhm M, Zeidler C, Germeshausen M, Welte K, Luger TA, Bonsmann G.  
Hautarzt. 2001 Sep;52(9):790-6. German.  
PMID: 11572070 [PubMed - indexed for MEDLINE]
- 20. [Mutations in the gene encoding neutrophil elastase in congenital and cyclic neutropenia.](#)  
Dale DC, Person RE, Bolyard AA, Aprikyan AG, Bos C, Bonilla MA, Boxer LA, Kannourakis G, Zeidler C, Welte K, Benson KF, Horwitz M.  
Blood. 2000 Oct 1;96(7):2317-22.  
PMID: 11001877 [PubMed - indexed for MEDLINE] **Free Article**
- 21. [Mutations in ELA2, encoding neutrophil elastase, define a 21-day biological clock in cyclic haematopoiesis.](#)  
Horwitz M, Benson KF, Person RE, Aprikyan AG, Dale DC.  
Nat Genet. 1999 Dec;23(4):433-6.  
PMID: 10581030 [PubMed - indexed for MEDLINE]

# PubMed

Search: Cyclic neutropenia and case reports and ELA2

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (2)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

Limits Activated: Humans [Change](#) | [Remove](#)

## [ELANE-Related Neutropenia](#)

Source: GeneReviews

ELANE-related neutropenia includes congenital neutropenia and cyclic neutropenia, both of which are primary hematologic disorders characterized by recurrent fever, skin and oropharyngeal inflammation (i.e., mouth ulcers, gingivitis, sinusitis, and pharyngitis), and cervical adenopathy.

[Genetic Counseling](#) [Management](#)

## Results: 2

- [Double de novo mutations of ELA2 in cyclic and severe congenital neutropenia.](#)
- 1. Salipante SJ, Benson KF, Luty J, Hadavi V, Kariminejad R, Kariminejad MH, Rezaei N, Horwitz MS. Hum Mutat. 2007 Sep;28(9):874-81. PMID: 17436313 [PubMed - indexed for MEDLINE]
- [\[Cyclic neutropenia. Detection of a mutation in the gene for neutrophil elastase \(ELA2\)\].](#)
- 2. Schiller M, Böhm M, Zeidler C, Germeshausen M, Welte K, Luger TA, Bonsmann G. Hautarzt. 2001 Sep;52(9):790-6. German. PMID: 11572070 [PubMed - indexed for MEDLINE]

# PubMed

Search: X-linked neutropenia AND wasp and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (2)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

Limits Activated: Humans [Change](#) | [Remove](#)

## [ELANE-Related Neutropenia](#)

Source: GeneReviews

ELANE-related neutropenia includes congenital neutropenia and cyclic neutropenia, both of which are primary hematologic disorders characterized by recurrent fever, skin and oropharyngeal inflammation (i.e., mouth ulcers, gingivitis, sinusitis, and pharyngitis), and cervical adenopathy.

[Genetic Counseling](#) [Management](#)

## Results: 2

- [A novel termination codon mutation of the WAS gene in a Thai family with Wiskott-Aldrich syndrome.](#)
- 1. Chatchatee P, Srichomthong C, Chewatavorn A, Shotelersuk V.  
Int J Mol Med. 2003 Dec;12(6):939-41.  
PMID: 14612970 [PubMed - indexed for MEDLINE]
- [Missense mutations of the WASP gene cause intermittent X-linked thrombocytopenia.](#)
- 2. Notarangelo LD, Mazza C, Giliani S, D'Aria C, Gandellini F, Ravelli C, Locatelli MG, Nelson DL, Ochs HD, Notarangelo LD.  
Blood. 2002 Mar 15;99(6):2268-9.  
PMID: 11877312 [PubMed - indexed for MEDLINE] **Free Article**



# PubMed

Search: X-linked neutropenia AND wasp and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (2)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

Limits Activated: Humans [Change](#) | [Remove](#)

## [ELANE-Related Neutropenia](#)

Source: GeneReviews

ELANE-related neutropenia includes congenital neutropenia and cyclic neutropenia, both of which are primary hematologic disorders characterized by recurrent fever, skin and oropharyngeal inflammation (i.e., mouth ulcers, gingivitis, sinusitis, and pharyngitis), and cervical adenopathy.

[Genetic Counseling](#) [Management](#)

## Results: 2

- [A novel termination codon mutation of the WAS gene in a Thai family with Wiskott-Aldrich syndrome.](#)
- 1. Chatchatee P, Srichomthong C, Chewatavorn A, Shotelersuk V.  
Int J Mol Med. 2003 Dec;12(6):939-41.  
PMID: 14612970 [PubMed - indexed for MEDLINE]
- [Missense mutations of the WASP gene cause intermittent X-linked thrombocytopenia.](#)
- 2. Notarangelo LD, Mazza C, Giliani S, D'Aria C, Gandellini F, Ravelli C, Locatelli MG, Nelson DL, Ochs HD, Notarangelo LD.  
Blood. 2002 Mar 15;99(6):2268-9.  
PMID: 11877312 [PubMed - indexed for MEDLINE] **Free Article**

Limits Activated: Humans [Change](#) | [Remove](#)**ELANE-Related Neutropenia**

Source: GeneReviews

ELANE-related neutropenia includes congenital neutropenia and cyclic neutropenia, both of which are primary hematologic disorders characterized by recurrent fever, skin and oropharyngeal inflammation (i.e., mouth ulcers, gingivitis, sinusitis, and pharyngitis), and cervical adenopathy.

[Genetic Counseling](#) [Management](#)**Results: 16**

- [The Wiskott-Aldrich syndrome: The actin cytoskeleton and immune cell function.](#)
  1. Blundell MP, Worth A, Bouma G, Thrasher AJ.  
Dis Markers. 2010;29(3-4):157-75. Review.  
PMID: 21178275 [PubMed - indexed for MEDLINE]
- [Activating WASP mutations associated with X-linked neutropenia result in enhanced actin polymerization, altered cytoskeletal responses, and genomic instability in lymphocytes.](#)
  2. Westerberg LS, Meelu P, Baptista M, Eston MA, Adamovich DA, Cotta-de-Almeida V, Seed B, Rosen MK, Vandenberghe P, Thrasher AJ, Klein C, Alt FW, Snapper SB.  
J Exp Med. 2010 Jun 7;207(6):1145-52. Epub 2010 May 31.  
PMID: 20513746 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [WASP: a key immunological multitasker.](#)
  3. Thrasher AJ, Burns SO.  
Nat Rev Immunol. 2010 Mar;10(3):182-92. Review.  
PMID: 20182458 [PubMed - indexed for MEDLINE]
- [New insights into the biology of Wiskott-Aldrich syndrome \(WAS\).](#)
  4. Thrasher AJ.  
Hematology Am Soc Hematol Educ Program. 2009:132-8. Review.  
PMID: 20008191 [PubMed - indexed for MEDLINE] **Free Article**
- [Wiskott-Aldrich syndrome: diagnosis, clinical and laboratory manifestations, and treatment.](#)
  5. Ochs HD, Filipovich AH, Veys P, Cowan MJ, Kapoor N.  
Biol Blood Marrow Transplant. 2009 Jan;15(1 Suppl):84-90. Review.  
PMID: 19147084 [PubMed - indexed for MEDLINE]
- [Mutations of the Wiskott-Aldrich Syndrome Protein affect protein expression and dictate the clinical phenotypes.](#)
  6. Ochs HD.  
Immunol Res. 2009;44(1-3):84-8. Review.  
PMID: 19082760 [PubMed - indexed for MEDLINE]
- [A large kindred with X-linked neutropenia with an I294T mutation of the Wiskott-Aldrich syndrome gene.](#)
  7. Beel K, Cotter MM, Blatny J, Bond J, Lucas G, Green F, Vanduppen V, Leung DW, Rooney S, Smith OP, Rosen MK, Vandenberghe P.  
Br J Haematol. 2009 Jan;144(1):120-6. Epub 2008 Nov 1.  
PMID: 19006568 [PubMed - indexed for MEDLINE]
- [Wiskott-Aldrich syndrome.](#)
  8. Notarangelo LD, Miao CH, Ochs HD.  
Curr Opin Hematol. 2008 Jan;15(1):30-6. Review.  
PMID: 18043243 [PubMed - indexed for MEDLINE]
- [Unregulated actin polymerization by WASp causes defects of mitosis and cytokinesis in X-linked neutropenia.](#)
  9. Moulding DA, Blundell MP, Spiller DG, White MR, Cory GO, Calle Y, Kempinski H, Sinclair J, Ancliff PJ, Kinnon C, Jones GE, Thrasher AJ.  
J Exp Med. 2007 Sep 3;204(9):2213-24. Epub 2007 Aug 27.  
PMID: 17724125 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Two novel activating mutations in the Wiskott-Aldrich syndrome protein result in congenital neutropenia.](#)
  10. Ancliff PJ, Blundell MP, Cory GO, Calle Y, Worth A, Kempinski H, Burns S, Jones GE, Sinclair J, Kinnon C, Hann IM, Gale RE, Linch DC, Thrasher AJ.  
Blood. 2006 Oct 1;108(7):2182-9. Epub 2006 Jun 27.  
PMID: 16804117 [PubMed - indexed for MEDLINE] **Free Article**
- [The Wiskott-Aldrich syndrome.](#)
  11. Ochs HD, Thrasher AJ.

J Allergy Clin Immunol. 2006 Apr;117(4):725-38; quiz 739. Review.  
PMID: 16630926 [PubMed - indexed for MEDLINE]

■ [Structure and function of the Wiskott-Aldrich syndrome protein.](#)

12. Ochs HD, Notarangelo LD.  
Curr Opin Hematol. 2005 Jul;12(4):284-91. Review.  
PMID: 15928485 [PubMed - indexed for MEDLINE]

■ [Identification of WASP mutations in 10 Australian families with Wiskott-Aldrich syndrome and X-linked thrombocytopenia.](#)

13. Bourne HC, Weston S, Prasad M, Edkins E, Benson EM.  
Pathology. 2004 Jun;36(3):262-4.  
PMID: 15203732 [PubMed - indexed for MEDLINE]

■ [A novel termination codon mutation of the WAS gene in a Thai family with Wiskott-Aldrich syndrome.](#)

14. Chatchatee P, Srichomthong C, Chewatavorn A, Shotelersuk V.  
Int J Mol Med. 2003 Dec;12(6):939-41.  
PMID: 14612970 [PubMed - indexed for MEDLINE]

■ [Missense mutations of the WASP gene cause intermittent X-linked thrombocytopenia.](#)

15. Notarangelo LD, Mazza C, Giliani S, D'Aria C, Gandellini F, Ravelli C, Locatelli MG, Nelson DL, Ochs HD, Notarangelo LD.  
Blood. 2002 Mar 15;99(6):2268-9.  
PMID: 11877312 [PubMed - indexed for MEDLINE] **Free Article**

■ [Constitutively activating mutation in WASP causes X-linked severe congenital neutropenia.](#)

16. Devriendt K, Kim AS, Mathijs G, Frints SG, Schwartz M, Van Den Oord JJ, Verhoef GE, Boogaerts MA, Fryns JP, You D, Rosen MK, Vandenberghe P.  
Nat Genet. 2001 Mar;27(3):313-7.  
PMID: 11242115 [PubMed - indexed for MEDLINE]

# PubMed

Search: neutropenia AND wasp

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (17)

Display Settings: Summary, 20 per page, Sorted by Recently Added

[Manage Filters](#)Limits Activated: Humans [Change](#) | [Remove](#)

## ELANE-Related Neutropenia

Source: GeneReviews

ELANE-related neutropenia includes congenital neutropenia and cyclic neutropenia, both of which are primary hematologic disorders characterized by recurrent fever, skin and oropharyngeal inflammation (i.e., mouth ulcers, gingivitis, sinusitis, and pharyngitis), and cervical adenopathy.

[Genetic Counseling](#) [Management](#)

## Results: 17

- [The Wiskott-Aldrich syndrome: The actin cytoskeleton and immune cell function.](#)
  1. Blundell MP, Worth A, Bouma G, Thrasher AJ.  
Dis Markers. 2010;29(3-4):157-75. Review.  
PMID: 21178275 [PubMed - indexed for MEDLINE]
- [Activating WASP mutations associated with X-linked neutropenia result in enhanced actin polymerization, altered cytoskeletal responses, and genomic instability in lymphocytes.](#)
  2. Westerberg LS, Meelu P, Baptista M, Eston MA, Adamovich DA, Cotta-de-Almeida V, Seed B, Rosen MK, Vandenberghe P, Thrasher AJ, Klein C, Alt FW, Snapper SB.  
J Exp Med. 2010 Jun 7;207(6):1145-52. Epub 2010 May 31.  
PMID: 20513746 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [WASP: a key immunological multitasker.](#)
  3. Thrasher AJ, Burns SO.  
Nat Rev Immunol. 2010 Mar;10(3):182-92. Review.  
PMID: 20182458 [PubMed - indexed for MEDLINE]
- [New insights into the biology of Wiskott-Aldrich syndrome \(WAS\).](#)
  4. Thrasher AJ.  
Hematology Am Soc Hematol Educ Program. 2009:132-8. Review.  
PMID: 20008191 [PubMed - indexed for MEDLINE] **Free Article**
- [Wiskott-Aldrich syndrome: diagnosis, clinical and laboratory manifestations, and treatment.](#)
  5. Ochs HD, Filipovich AH, Veys P, Cowan MJ, Kapoor N.  
Biol Blood Marrow Transplant. 2009 Jan;15(1 Suppl):84-90. Review.  
PMID: 19147084 [PubMed - indexed for MEDLINE]
- [Mutations of the Wiskott-Aldrich Syndrome Protein affect protein expression and dictate the clinical phenotypes.](#)
  6. Ochs HD.  
Immunol Res. 2009;44(1-3):84-8. Review.  
PMID: 19082760 [PubMed - indexed for MEDLINE]
- [A large kindred with X-linked neutropenia with an I294T mutation of the Wiskott-Aldrich syndrome gene.](#)
  7. Beel K, Cotter MM, Blatny J, Bond J, Lucas G, Green F, Vanduppen V, Leung DW, Rooney S, Smith OP, Rosen MK, Vandenberghe P.  
Br J Haematol. 2009 Jan;144(1):120-6. Epub 2008 Nov 1.  
PMID: 19006568 [PubMed - indexed for MEDLINE]
- [Wiskott-Aldrich syndrome.](#)
  8. Notarangelo LD, Miao CH, Ochs HD.  
Curr Opin Hematol. 2008 Jan;15(1):30-6. Review.  
PMID: 18043243 [PubMed - indexed for MEDLINE]
- [Unregulated actin polymerization by WASp causes defects of mitosis and cytokinesis in X-linked neutropenia.](#)
  9. Moulding DA, Blundell MP, Spiller DG, White MR, Cory GO, Calle Y, Kempinski H, Sinclair J, Ancliff PJ, Kinnon C, Jones GE, Thrasher AJ.  
J Exp Med. 2007 Sep 3;204(9):2213-24. Epub 2007 Aug 27.  
PMID: 17724125 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Two novel activating mutations in the Wiskott-Aldrich syndrome protein result in congenital neutropenia.](#)
  10. Ancliff PJ, Blundell MP, Cory GO, Calle Y, Worth A, Kempinski H, Burns S, Jones GE, Sinclair J, Kinnon C, Hann IM, Gale RE, Linch DC, Thrasher AJ.  
Blood. 2006 Oct 1;108(7):2182-9. Epub 2006 Jun 27.  
PMID: 16804117 [PubMed - indexed for MEDLINE] **Free Article**
- [The Wiskott-Aldrich syndrome.](#)
  11. Ochs HD, Thrasher AJ.

J Allergy Clin Immunol. 2006 Apr;117(4):725-38; quiz 739. Review.  
PMID: 16630926 [PubMed - indexed for MEDLINE]

[Structure and function of the Wiskott-Aldrich syndrome protein.](#)

12. Ochs HD, Notarangelo LD.  
Curr Opin Hematol. 2005 Jul;12(4):284-91. Review.  
PMID: 15928485 [PubMed - indexed for MEDLINE]

[Identification of WASP mutations in 10 Australian families with Wiskott-Aldrich syndrome and X-linked thrombocytopenia.](#)

13. Bourne HC, Weston S, Prasad M, Edkins E, Benson EM.  
Pathology. 2004 Jun;36(3):262-4.  
PMID: 15203732 [PubMed - indexed for MEDLINE]

[A novel termination codon mutation of the WAS gene in a Thai family with Wiskott-Aldrich syndrome.](#)

14. Chatchatee P, Srichomthong C, Chewatavorn A, Shotelersuk V.  
Int J Mol Med. 2003 Dec;12(6):939-41.  
PMID: 14612970 [PubMed - indexed for MEDLINE]

[Role of neutrophil elastase in bone marrow failure syndromes: molecular genetic revival of the chalone hypothesis.](#)

15. Horwitz M, Benson KF, Duan Z, Person RE, Wechsler J, Williams K, Albani D, Li FQ.  
Curr Opin Hematol. 2003 Jan;10(1):49-54. Review.  
PMID: 12483111 [PubMed - indexed for MEDLINE]

[Missense mutations of the WASP gene cause intermittent X-linked thrombocytopenia.](#)

16. Notarangelo LD, Mazza C, Giliani S, D'Aria C, Gandellini F, Ravelli C, Locatelli MG, Nelson DL, Ochs HD, Notarangelo LD.  
Blood. 2002 Mar 15;99(6):2268-9.  
PMID: 11877312 [PubMed - indexed for MEDLINE] **Free Article**

[Constitutively activating mutation in WASP causes X-linked severe congenital neutropenia.](#)

17. Devriendt K, Kim AS, Mathijs G, Frints SG, Schwartz M, Van Den Oord JJ, Verhoef GE, Boogaerts MA, Fryns JP, You D, Rosen MK, Vandenberghe P.  
Nat Genet. 2001 Mar;27(3):313-7.  
PMID: 11242115 [PubMed - indexed for MEDLINE]

# PubMed

Search: Neutropenia and myelodysplasia and wasp

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (3)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

Limits Activated: Humans [Change](#) | [Remove](#)

---

## Results: 3

- [The Wiskott-Aldrich syndrome: The actin cytoskeleton and immune cell function.](#)
  1. Blundell MP, Worth A, Bouma G, Thrasher AJ.  
Dis Markers. 2010;29(3-4):157-75. Review.  
PMID: 21178275 [PubMed - indexed for MEDLINE]
- [Two novel activating mutations in the Wiskott-Aldrich syndrome protein result in congenital neutropenia.](#)
  2. Ancliff PJ, Blundell MP, Cory GO, Calle Y, Worth A, Kempinski H, Burns S, Jones GE, Sinclair J, Kinnon C, Hann IM, Gale RE, Linch DC, Thrasher AJ.  
Blood. 2006 Oct 1;108(7):2182-9. Epub 2006 Jun 27.  
PMID: 16804117 [PubMed - indexed for MEDLINE] **Free Article**
- [Role of neutrophil elastase in bone marrow failure syndromes: molecular genetic revival of the chalone hypothesis.](#)
  3. Horwitz M, Benson KF, Duan Z, Person RE, Wechsler J, Williams K, Albani D, Li FQ.  
Curr Opin Hematol. 2003 Jan;10(1):49-54. Review.  
PMID: 12483111 [PubMed - indexed for MEDLINE]

## PubMed

Search: Neutropenia and myelodysplasia and was

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (112)

[Manage Filters](#)

Display Settings: Summary, 200 per page, Sorted by Recently Added

Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 112

- [The Wiskott-Aldrich syndrome: The actin cytoskeleton and immune cell function.](#)
  1. Blundell MP, Worth A, Bouma G, Thrasher AJ.  
Dis Markers. 2010;29(3-4):157-75. Review.  
PMID: 21178275 [PubMed - indexed for MEDLINE]
  
- [Granulocyte colony-stimulating factor receptor: stimulating granulopoiesis and much more.](#)
  2. Liongue C, Wright C, Russell AP, Ward AC.  
Int J Biochem Cell Biol. 2009 Dec;41(12):2372-5. Epub 2009 Aug 21. Review.  
PMID: 19699815 [PubMed - indexed for MEDLINE]
  
- [\[Usefulness of FDG-PET for the diagnosis of copper deficiency at an early stage: a case report\].](#)
  3. Uchino Y, Onodera S, Katano M, Endo H, Kamezawa M, Nomura T, Henmi T, Okai M, Odaki M, Oka N.  
Kaku Igaku. 2008 Nov;45(4):357-60. Japanese.  
PMID: 19591408 [PubMed - indexed for MEDLINE]
  
- [\[Lung abscess secondary to neutropenic myelodysplasia treated with G-CSF\].](#)
  4. Guillemainault L, Espanel C, Marcq M, Azzouz M, Diot E, Binet C, Diot P.  
Rev Mal Respir. 2009 Jan;26(1):87-9. French. No abstract available.  
PMID: 19212297 [PubMed - indexed for MEDLINE]
  
- [Stem cell transplantation: Iranian experience.](#)
  5. Ghavamzadeh A, Alimoghaddam K, Jahani M, Mousavi SA, Irvani M, Bahar B, Khodabandeh A, Khatami F, Gaffari F, Jalali A.  
Arch Iran Med. 2009 Jan;12(1):69-72. Erratum in: Arch Iran Med. 2009 May;12(3):329. Alimogaddam, Kamran [corrected to Alimoghaddam, Kamran]; Mousavi, Seyed Asadollah [corrected to Mousavi, Seied Asadollah].  
PMID: 19111033 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Pyoderma gangrenosum in association with autoimmune neutropenia of infancy.](#)
  6. Mehta AJ, Charman CR.  
Pediatr Dermatol. 2008 Nov-Dec;25(6):620-2.  
PMID: 19067867 [PubMed - indexed for MEDLINE]
  
- [Transient myelofibrosis with autoimmune pancytopenia: a case report.](#)
  7. Nakao T, Fukushima T, Shimizu T, Nanmoku T, Fujiyama S, Nakajima R, Fukushima F, Noguchi M, Sumazaki R.  
Eur J Pediatr. 2009 Aug;168(8):1003-6. Epub 2008 Nov 6. Review.  
PMID: 18987883 [PubMed - indexed for MEDLINE]
  
- [Granulocyte colony-stimulating factor administration: adverse events.](#)
  8. D'Souza A, Jaiyesimi I, Trainor L, Venuturumili P.  
Transfus Med Rev. 2008 Oct;22(4):280-90. Review.  
PMID: 18848155 [PubMed - indexed for MEDLINE]
  
- [Pancytopenia with myelodysplasia due to copper deficiency.](#)
  9. Angotti LB, Post GR, Robinson NS, Lewis JA, Hudspeth MP, Lazarchick J.  
Pediatr Blood Cancer. 2008 Nov;51(5):693-5.  
PMID: 18623212 [PubMed - indexed for MEDLINE]
  
- [Clinical and genetic analysis of unclassifiable inherited bone marrow failure syndromes.](#)
  10. Teo JT, Klaassen R, Fernandez CV, Yanofsky R, Wu J, Champagne J, Silva M, Lipton JH, Brossard J, Samson Y, Abish S, Steele M, Ali K, Athale U, Jardine L, Hand JP, Tsangaris E, Odame I, Beyene J, Dror Y.  
Pediatrics. 2008 Jul;122(1):e139-48.  
PMID: 18595958 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Pretransplant neutropenia is associated with poor-risk cytogenetic features and increased infection-related mortality in patients with myelodysplastic syndromes.](#)
  11. Scott BL, Park JY, Deeg HJ, Marr KA, Boeckh M, Chauncey TR, Appelbaum FR, Storb R, Storer BE.  
Biol Blood Marrow Transplant. 2008 Jul;14(7):799-806.  
PMID: 18541200 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Congenital neutropenia syndromes.](#)
  12. Boztug K, Welte K, Zeidler C, Klein C.  
Immunol Allergy Clin North Am. 2008 May;28(2):259-75, vii-viii. Review.

PMID: 18424332 [PubMed - indexed for MEDLINE]

- 13. [Prolonged haematological toxicity from the hyper-CVAD regimen: manifestations, frequency, and natural history in a cohort of 125 consecutive patients.](#)  
Gill S, Lane SW, Crawford J, Cull G, Joske D, Marlton P, Mollee PN, Prince HM, Seymour JF.  
Ann Hematol. 2008 Sep;87(9):727-34. Epub 2008 Apr 10.  
PMID: 18401583 [PubMed - indexed for MEDLINE]
- 14. [The role of lenalidomide in the management of myelodysplasia with del 5q.](#)  
Kelaidi C, Eclache V, Fenaux P.  
Br J Haematol. 2008 Feb;140(3):267-78. Review.  
PMID: 18217896 [PubMed - indexed for MEDLINE]
- 15. [The prognosis for patients with chronic myeloid leukemia who have clonal cytogenetic abnormalities in philadelphia chromosome-negative cells.](#)  
Deininger MW, Cortes J, Paquette R, Park B, Hochhaus A, Baccarani M, Stone R, Fischer T, Kantarjian H, Niederwieser D, Gambacorti-Passerini C, So C, Gathmann I, Goldman JM, Smith D, Druker BJ, Guilhot F.  
Cancer. 2007 Oct 1;110(7):1509-19.  
PMID: 17702093 [PubMed - indexed for MEDLINE] **Free Article**
- 16. [Clonality in the setting of Sweet's syndrome and pyoderma gangrenosum is not limited to underlying myeloproliferative disease.](#)  
Magro CM, Kiani B, Li J, Crowson AN.  
J Cutan Pathol. 2007 Jul;34(7):526-34.  
PMID: 17576331 [PubMed - indexed for MEDLINE]
- 17. [Flexible low-intensity combination chemotherapy for elderly patients with acute myeloid leukaemia: a multicentre, phase II study.](#)  
Manoharan A, Reynolds J, Matthews J, Baxter H, Di Iulio J, Leahy M, Juneja S; Australasian Leukaemia and Lymphoma Group.  
Drugs Aging. 2007;24(6):481-8.  
PMID: 17571913 [PubMed - indexed for MEDLINE]
- 18. [Safety, efficacy, and immune reconstitution after rituximab therapy in pediatric patients with chronic or refractory hematologic autoimmune cytopenias.](#)  
Rao A, Kelly M, Musselman M, Ramadas J, Wilson D, Grossman W, Shenoy S.  
Pediatr Blood Cancer. 2008 Apr;50(4):822-5.  
PMID: 17570702 [PubMed - indexed for MEDLINE]
- 19. [Copper deficiency causes reversible myelodysplasia.](#)  
Huff JD, Keung YK, Thakuri M, Beaty MW, Hurd DD, Owen J, Molnár I.  
Am J Hematol. 2007 Jul;82(7):625-30.  
PMID: 17236184 [PubMed - indexed for MEDLINE]
- 20. [Meropenem -valproic acid interaction in patients with cefepime-associated status epilepticus.](#)  
Spriet I, Meersseman W, De Troy E, Wilmer A, Casteels M, Willems L.  
Am J Health Syst Pharm. 2007 Jan 1;64(1):54-8.  
PMID: 17189580 [PubMed - indexed for MEDLINE]
- 21. [Fatal agranulocytosis: the use of olanzapine in a patient with schizophrenia and myelodysplasia.](#)  
Stip E, Langlois R, Thuot C, Mancini-Marie A.  
Prog Neuropsychopharmacol Biol Psychiatry. 2007 Jan 30;31(1):297-300. Epub 2006 Sep 15.  
PMID: 16978752 [PubMed - indexed for MEDLINE]
- 22. [Malignant myeloid transformation in a child with severe congenital neutropenia \(Kostmann's syndrome\).](#)  
Chong LA, Josephine P, Ariffin H.  
Med J Malaysia. 2006 Jun;61(2):236-8.  
PMID: 16898320 [PubMed - indexed for MEDLINE]
- 23. [Severe congenital neutropenia.](#)  
Welte K, Zeidler C, Dale DC.  
Semin Hematol. 2006 Jul;43(3):189-95. Review.  
PMID: 16822461 [PubMed - indexed for MEDLINE]
- 24. [Two novel activating mutations in the Wiskott-Aldrich syndrome protein result in congenital neutropenia.](#)  
Ancliff PJ, Blundell MP, Cory GO, Calle Y, Worth A, Kempski H, Burns S, Jones GE, Sinclair J, Kinnon C, Hann IM, Gale RE, Linch DC, Thrasher AJ.  
Blood. 2006 Oct 1;108(7):2182-9. Epub 2006 Jun 27.  
PMID: 16804117 [PubMed - indexed for MEDLINE] **Free Article**
- 25. [Disease progression in recently diagnosed patients with inherited marrow failure syndromes: a Canadian Inherited Marrow Failure Registry \(CIMFR\) report.](#)  
Steele JM, Sung L, Klaassen R, Fernandez CV, Yanofsky R, Wu J, Odame I, Silva M, Champagne J, Ali K, Brossard J, Samson Y, Abish



- S, Le D, Jardine L, Hand JP, Lipton JH, Charpentier K, Stephens D, Freedman M, Dror Y; Canadian Inherited Marrow Failure Registry. *Pediatr Blood Cancer*. 2006 Dec;47(7):918-25.  
PMID: 16676307 [PubMed - indexed for MEDLINE]
- [Severe chronic neutropenia--a case report.](#)
26. Bahl S, Vurgese T, Parappil A. *Indian J Pathol Microbiol*. 2004 Oct;47(4):523-5. Review.  
PMID: 16295383 [PubMed - indexed for MEDLINE]
- [Fludarabine combination therapy is highly effective in first-line and salvage treatment of patients with Waldenström's macroglobulinemia.](#)
27. Tam CS, Wolf MM, Westerman D, Januszewicz EH, Prince HM, Seymour JF. *Clin Lymphoma Myeloma*. 2005 Sep;6(2):136-9.  
PMID: 16231852 [PubMed - indexed for MEDLINE]
- [Successful unrelated umbilical cord blood transplantation in children with Shwachman-Diamond syndrome.](#)
28. Vibhakar R, Radhi M, Rumelhart S, Tatman D, Goldman F. *Bone Marrow Transplant*. 2005 Nov;36(10):855-61.  
PMID: 16113664 [PubMed - indexed for MEDLINE]
- [Severe and prolonged myeloid haematopoietic toxicity with myelodysplastic features following alemtuzumab therapy in patients with peripheral T-cell lymphoproliferative disorders.](#)
29. Gibbs SD, Westerman DA, McCormack C, Seymour JF, Miles Prince H. *Br J Haematol*. 2005 Jul;130(1):87-91.  
PMID: 15982349 [PubMed - indexed for MEDLINE]
- [The activity of taxanes compared with bleomycin, etoposide, and cisplatin in the treatment of sex cord-stromal ovarian tumors.](#)
30. Brown J, Shvartsman HS, Deavers MT, Ramondetta LM, Burke TW, Munsell MF, Gershenson DM. *Gynecol Oncol*. 2005 May;97(2):489-96.  
PMID: 15863149 [PubMed - indexed for MEDLINE]
- [Hematologic abnormalities in Shwachman Diamond syndrome: lack of genotype-phenotype relationship.](#)
31. Kuijpers TW, Alders M, Tool AT, Mellink C, Roos D, Hennekam RC. *Blood*. 2005 Jul 1;106(1):356-61. Epub 2005 Mar 15.  
PMID: 15769891 [PubMed - indexed for MEDLINE] **Free Article**
- [Is granulocyte colony-stimulating factor therapy a risk factor for myelodysplasia/leukemia in patients with congenital neutropenia?](#)
32. Niemeyer CM, Kratz CP. *Haematologica*. 2005 Jan;90(1):2-3. No abstract available.  
PMID: 15644298 [PubMed - indexed for MEDLINE]
- [Analysis of risk factors for myelodysplasias, leukemias and death from infection among patients with congenital neutropenia. Experience of the French Severe Chronic Neutropenia Study Group.](#)
33. Donadieu J, Leblanc T, Bader Meunier B, Barkaoui M, Fenneteau O, Bertrand Y, Maier-Redelsperger M, Micheau M, Stephan JL, Phillipe N, Bordigoni P, Babin-Boilletot A, Bensaid P, Manel AM, Vilmer E, Thuret I, Blanche S, Gluckman E, Fischer A, Mechinaud F, Joly B, Lamy T, Hermine O, Cassinat B, Bellanné-Chantelot C, Chomienne C; French Severe Chronic Neutropenia Study Group. *Haematologica*. 2005 Jan;90(1):45-53.  
PMID: 15642668 [PubMed - indexed for MEDLINE] **Free Article**
- [Hemophagocytosis exacerbated by G-CSF/GM-CSF treatment in a patient with myelodysplasia.](#)
34. Wang S, Degar BA, Zieske A, Shafi NQ, Rose MG. *Am J Hematol*. 2004 Dec;77(4):391-6.  
PMID: 15551287 [PubMed - indexed for MEDLINE]
- [Altered glycosylation leads to Tr polyagglutination.](#)
35. Halverson GR, Lee AH, Øyen R, Reiss RF, Hurllet-Jensen A, Reid ME. *Transfusion*. 2004 Nov;44(11):1588-92.  
PMID: 15504164 [PubMed - indexed for MEDLINE]
- [Nonclonal neutrophil responses after successful treatment of myelodysplasia with low-dose 5-aza-2'-deoxycytidine \(decitabine\).](#)
36. Lübbert M, Daskalakis M, Kunzmann R, Engelhardt M, Guo Y, Wijermans P. *Leuk Res*. 2004 Dec;28(12):1267-71.  
PMID: 15475067 [PubMed - indexed for MEDLINE]
- [The activity of taxanes in the treatment of sex cord-stromal ovarian tumors.](#)
37. Brown J, Shvartsman HS, Deavers MT, Burke TW, Munsell MF, Gershenson DM. *J Clin Oncol*. 2004 Sep 1;22(17):3517-23.  
PMID: 15337800 [PubMed - indexed for MEDLINE]
- [Propionic acidemia with myelodysplasia and neutropenia in a Turkish child.](#)
38. Sipahi T, Yilmaz D, Tavil B.

J Pediatr Hematol Oncol. 2004 Mar;26(3):154-5. No abstract available.

PMID: 15125606 [PubMed - indexed for MEDLINE]

- [Tositumomab and iodine I 131 tositumomab for recurrent indolent and transformed B-cell non-Hodgkin's lymphoma.](#)
- 39. Davies AJ, Rohatiner AZ, Howell S, Britton KE, Owens SE, Micallef IN, Deakin DP, Carrington BM, Lawrance JA, Vinnicombe S, Mather SJ, Clayton J, Foley R, Jan H, Kroll S, Harris M, Amess J, Norton AJ, Lister TA, Radford JA.  
J Clin Oncol. 2004 Apr 15;22(8):1469-79.  
PMID: 15084620 [PubMed - indexed for MEDLINE]
- [Mutations in the ELA2 gene correlate with more severe expression of neutropenia: a study of 81 patients from the French Neutropenia Register.](#)
- 40. Bellanné-Chantelot C, Clauin S, Leblanc T, Cassinat B, Rodrigues-Lima F, Beaufile S, Vaury C, Barkaoui M, Fenneteau O, Maier-Redelsperger M, Chomienne C, Donadieu J.  
Blood. 2004 Jun 1;103(11):4119-25. Epub 2004 Feb 12.  
PMID: 14962902 [PubMed - indexed for MEDLINE] **Free Article**
- [Shwachman-Diamond syndrome with late-onset neutropenia and fatal acute myeloid leukaemia without maturation: a case report.](#)
- 41. Lesesve JF, Dugué F, Grégoire MJ, Witz F, Dror Y.  
Eur J Haematol. 2003 Nov;71(5):393-5.  
PMID: 14667205 [PubMed - indexed for MEDLINE]
- [Leukemia in severe congenital neutropenia: defective proteolysis suggests new pathways to malignancy and opportunities for therapy.](#)
- 42. Horwitz M, Li FQ, Albani D, Duan Z, Person RE, Meade-White K, Benson KF.  
Cancer Invest. 2003;21(4):579-87. Review.  
PMID: 14533448 [PubMed - indexed for MEDLINE]
- [Molecular basis and therapy of disorders associated with chronic neutropenia.](#)
- 43. Stein SM, Dale DC.  
Curr Allergy Asthma Rep. 2003 Sep;3(5):385-8. Review.  
PMID: 12906773 [PubMed - indexed for MEDLINE]
- [Neoadjuvant chemotherapy and radiotherapy for large extremity soft-tissue sarcomas.](#)
- 44. DeLaney TF, Spiro IJ, Suit HD, Gebhardt MC, Hornicek FJ, Mankin HJ, Rosenberg AL, Rosenthal DI, Miryousefi F, Ancukiewicz M, Harmon DC.  
Int J Radiat Oncol Biol Phys. 2003 Jul 15;56(4):1117-27.  
PMID: 12829150 [PubMed - indexed for MEDLINE]
- [Refractory anemia in childhood: a retrospective analysis of 67 patients with particular reference to monosomy 7.](#)
- 45. Kardos G, Baumann I, Passmore SJ, Locatelli F, Hasle H, Schultz KR, Starý J, Schmitt-Graeff A, Fischer A, Harbott J, Chessells JM, Hann I, Fenu S, Rajnoldi AC, Kerndrup G, Van Wering E, Rogge T, Nollke P, Niemeyer CM.  
Blood. 2003 Sep 15;102(6):1997-2003. Epub 2003 May 22.  
PMID: 12763938 [PubMed - indexed for MEDLINE] **Free Article**
- [Uneventful outcome of unrelated hematopoietic stem cell transplantation in a patient with leukemic transformation of Kostmann syndrome and long-lasting invasive pulmonary mycosis.](#)
- 46. Dallorso S, Manzitti C, Dodero P, Faraci M, Rosanda C, Castagnola E.  
Eur J Haematol. 2003 May;70(5):322-5.  
PMID: 12694170 [PubMed - indexed for MEDLINE]
- [Safety of yttrium-90 ibritumomab tiuxetan radioimmunotherapy for relapsed low-grade, follicular, or transformed non-hodgkin's lymphoma.](#)
- 47. Witzig TE, White CA, Gordon LI, Wiseman GA, Emmanouilides C, Murray JL, Lister J, Multani PS.  
J Clin Oncol. 2003 Apr 1;21(7):1263-70.  
PMID: 12663713 [PubMed - indexed for MEDLINE]
- [Disordered hematopoiesis and myelodysplasia in the elderly.](#)
- 48. Rothstein G.  
J Am Geriatr Soc. 2003 Mar;51(3 Suppl):S22-6. Review.  
PMID: 12588569 [PubMed - indexed for MEDLINE]
- [Long-term follow-up of granulocyte colony-stimulating factor receptor mutations in patients with severe congenital neutropenia: implications for leukaemogenesis and therapy.](#)
- 49. Ancliff PJ, Gale RE, Liesner R, Hann I, Linch DC.  
Br J Haematol. 2003 Feb;120(4):685-90.  
PMID: 12588357 [PubMed - indexed for MEDLINE]
- [Severe chronic neutropenia: treatment and follow-up of patients in the Severe Chronic Neutropenia International Registry.](#)
- 50. Dale DC, Cottle TE, Fier CJ, Bolyard AA, Bonilla MA, Boxer LA, Cham B, Freedman MH, Kannourakis G, Kinsey SE, Davis R, Scarlata D, Schwinger B, Zeidler C, Welte K.  
Am J Hematol. 2003 Feb;72(2):82-93. Review.

PMID: 12555210 [PubMed - indexed for MEDLINE]

- [Role of neutrophil elastase in bone marrow failure syndromes: molecular genetic revival of the chalone hypothesis.](#)
- 51. Horwitz M, Benson KF, Duan Z, Person RE, Wechsler J, Williams K, Albani D, Li FQ.  
Curr Opin Hematol. 2003 Jan;10(1):49-54. Review.  
PMID: 12483111 [PubMed - indexed for MEDLINE]
- [Using fluorescence-activated cell sorting followed by fluorescence in situ hybridization to study lineage relationships: the 8:21 translocation is present in neutrophils but not monocytes in a patient with severe congenital neutropenia and a granulocyte colony-stimulating factor-responsive clonal abnormality.](#)
- 52. White C, Chen Z, Raetz E, Pulsipher M, Spangrude GJ, Slayton WB.  
Acta Paediatr Suppl. 2002;91(438):120-3.  
PMID: 12477275 [PubMed - indexed for MEDLINE]
- [Glycogen storage disease.](#)
- 53. Kannourakis G.  
Semin Hematol. 2002 Apr;39(2):103-6. Review.  
PMID: 11957192 [PubMed - indexed for MEDLINE]
- [Kostmann syndrome and severe congenital neutropenia.](#)
- 54. Zeidler C, Welte K.  
Semin Hematol. 2002 Apr;39(2):82-8. Review.  
PMID: 11957189 [PubMed - indexed for MEDLINE]
- [Acute and chronic neutropenias. What is new?](#)
- 55. Palmblad J, Papadaki HA, Eliopoulos G.  
J Intern Med. 2001 Dec;250(6):476-91. Review.  
PMID: 11902816 [PubMed - indexed for MEDLINE]
- [Phase I evaluation of prolonged-infusion gemcitabine with mitoxantrone for relapsed or refractory acute leukemia.](#)
- 56. Rizzieri DA, Bass AJ, Rosner GL, Gockerman JP, DeCastro CM, Petros WP, Adams DJ, Laughlin MJ, Davis P, Foster T, Jacobson R, Hurwitz H, Moore JO.  
J Clin Oncol. 2002 Feb 1;20(3):674-9.  
PMID: 11821447 [PubMed - indexed for MEDLINE]
- [Circulating tumour necrosis factor-alpha and interferon-gamma are detectable during acute and convalescent parvovirus B19 infection and are associated with prolonged and chronic fatigue.](#)
- 57. Kerr JR, Barah F, Matthey DL, Laing I, Hopkins SJ, Hutchinson IV, Tyrrell DA.  
J Gen Virol. 2001 Dec;82(Pt 12):3011-9.  
PMID: 11714978 [PubMed - indexed for MEDLINE] **Free Article**
- [A randomized prospective multicentre trial of cefpirome versus piperacillin-tazobactam in febrile neutropenia.](#)
- 58. Bauduer F, Cousin T, Boulat O, Rigal-Huguet F, Molina L, Fegueux N, Jourdan E, Boiron JM, Reiffers J; BGMT Collaborative Group.  
Leuk Lymphoma. 2001 Jul;42(3):379-86.  
PMID: 11699402 [PubMed - indexed for MEDLINE]
- [Acquired pure red cell aplasia associated with lymphoproliferative disease of granular T lymphocytes.](#)
- 59. Go RS, Li CY, Tefferi A, Phyliky RL.  
Blood. 2001 Jul 15;98(2):483-5.  
PMID: 11435321 [PubMed - indexed for MEDLINE] **Free Article**
- [Recombinant human granulocyte colony-stimulating factor therapy for patients with neutropenia and/or neutrophil dysfunction secondary to glycogen storage disease type 1b.](#)
- 60. Calderwood S, Kilpatrick L, Douglas SD, Freedman M, Smith-Whitley K, Rolland M, Kurtzberg J.  
Blood. 2001 Jan 15;97(2):376-82.  
PMID: 11154211 [PubMed - indexed for MEDLINE] **Free Article**
- [Clonal monosomy 7 and 5q--in a child with myelodysplastic syndrome.](#)
- 61. Chantrain C, Vermylen C, Michaux L, Brichard B, Cornu G.  
Pediatr Hematol Oncol. 2000 Sep;17(6):505-9.  
PMID: 10989472 [PubMed - indexed for MEDLINE]
- [Myelodysplasia syndrome and acute myeloid leukemia in patients with congenital neutropenia receiving G-CSF therapy.](#)
- 62. Freedman MH, Bonilla MA, Fier C, Bolyard AA, Scarlata D, Boxer LA, Brown S, Cham B, Kannourakis G, Kinsey SE, Mori PG, Cottle T, Welte K, Dale DC.  
Blood. 2000 Jul 15;96(2):429-36.  
PMID: 10887102 [PubMed - indexed for MEDLINE] **Free Article**
- [Hematologic toxicity of sodium valproate.](#)
- 63. Acharya S, Busse JB.

- J Pediatr Hematol Oncol. 2000 Jan-Feb;22(1):62-5. Review.  
PMID: 10695824 [PubMed - indexed for MEDLINE]
- [Improved hematopoiesis using amifostine in secondary myelodysplasia.](#)
64. Auletta JJ, Shurin S.  
J Pediatr Hematol Oncol. 1999 Nov-Dec;21(6):531-4.  
PMID: 10598667 [PubMed - indexed for MEDLINE]
- [Shwachman syndrome: phenotypic manifestations of sibling sets and isolated cases in a large patient cohort are similar.](#)
65. Ginzberg H, Shin J, Ellis L, Morrison J, Ip W, Dror Y, Freedman M, Heitlinger LA, Belt MA, Corey M, Rommens JM, Durie PR.  
J Pediatr. 1999 Jul;135(1):81-8.  
PMID: 10393609 [PubMed - indexed for MEDLINE]
- [Pseudomonas aeruginosa orbital phlegmon in a patient treated for myelodysplastic syndrome with concomitant Sjögren's syndrome.](#)
66. Giagounidis AA, Giagounidis AS, Germing U, Koch JA, Aul C.  
Eur J Med Res. 1999 Jan 26;4(1):27-30.  
PMID: 9892572 [PubMed - indexed for MEDLINE]
- [\[Successful emergency operation for massive hemorrhage due to jejunal angiodysplasia after intensive chemotherapy in a patient with refractory anemia with excess of blasts\].](#)
67. Morita K, Mizuno T, Itoh R, Suzuki H, Tanaka I.  
Rinsho Ketsueki. 1998 Jul;39(7):526-31. Japanese.  
PMID: 9750461 [PubMed - indexed for MEDLINE]
- [Acute myeloid leukemia in the elderly.](#)
68. Harousseau JL.  
Blood Rev. 1998 Sep;12(3):145-53. Review.  
PMID: 9745884 [PubMed - indexed for MEDLINE]
- [Idiopathic thrombocytopenic purpura associated with Crohn's disease.](#)
69. Baudard M, Molina T, Benfiguig K, Bethoux JP, Zittoun R.  
Haematologica. 1998 Jan;83(1):92-3.  
PMID: 9542329 [PubMed - indexed for MEDLINE] **Free Article**
- [MOPP/ABV hybrid chemotherapy for advanced Hodgkin's disease significantly improves failure-free and overall survival: the 8-year results of the intergroup trial.](#)
70. Glick JH, Young ML, Harrington D, Schilsky RL, Beck T, Neiman R, Fisher RI, Peterson BA, Oken MM.  
J Clin Oncol. 1998 Jan;16(1):19-26.  
PMID: 9440718 [PubMed - indexed for MEDLINE]
- [Effects of recombinant human granulocyte colony-stimulating factor administration on neutrophil phenotype and functions.](#)
71. Carulli G.  
Haematologica. 1997 Sep-Oct;82(5):606-16. Review.  
PMID: 9407734 [PubMed - indexed for MEDLINE] **Free Article**
- [Severe chronic neutropenia: pathophysiology and therapy.](#)
72. Welte K, Boxer LA.  
Semin Hematol. 1997 Oct;34(4):267-78. Review.  
PMID: 9347577 [PubMed - indexed for MEDLINE]
- [Myelodysplasia occurring after fludarabine treatment for chronic lymphocytic leukaemia.](#)
73. Frewin RJ, Provan D, Smith AG.  
Clin Lab Haematol. 1997 Jun;19(2):151-2.  
PMID: 9218157 [PubMed - indexed for MEDLINE]
- [Safety of long-term administration of granulocyte colony-stimulating factor for severe chronic neutropenia.](#)
74. Freedman MH.  
Curr Opin Hematol. 1997 May;4(3):217-24. Review.  
PMID: 9209840 [PubMed - indexed for MEDLINE]
- [Spontaneous splenic rupture following administration of granulocyte colony-stimulating factor \(G-CSF\): occurrence in an allogeneic donor of peripheral blood stem cells.](#)
75. Becker PS, Wagle M, Matous S, Swanson RS, Pihan G, Lowry PA, Stewart FM, Heard SO.  
Biol Blood Marrow Transplant. 1997 Apr;3(1):45-9. Erratum in: Biol Blood Marrow Transplant 1997 Jun;3(2):108.  
PMID: 9209740 [PubMed - indexed for MEDLINE]
- [Tumor necrosis factor-alpha suppresses hematopoiesis in children with myelodysplasia.](#)
76. Winter SS, Hanissian GA, Harville TO, Ware RE.  
Med Pediatr Oncol. 1997 Jan;28(1):69-74.  
PMID: 8950341 [PubMed - indexed for MEDLINE]

- [Myelodysplasia associated with Turner syndrome.](#)
- 77. Foster LA, Abboud MR, Taylor AB, Barredo J, Lazarchick J, Laver J.  
J Pediatr Hematol Oncol. 1996 Aug;18(3):299-301.  
PMID: 8689346 [PubMed - indexed for MEDLINE]
- [\[Congenital and acquired neutropenia in children\].](#)
- 78. Donadieu J.  
Presse Med. 1996 Feb 24;25(7):293-8. Review. French.  
PMID: 8685169 [PubMed - indexed for MEDLINE]
- [\[Trial of combined cytosine arabinoside with granulocyte colony-stimulating factor therapy or refractory acute myeloid leukemia\].](#)
- 79. Mori H, Kuriyama K, Tawara M, Danno Y, Fujimoto K, Tushima H, Saito M, Yamamura M, Hata T, Arimura M, et al.  
Rinsho Ketsueki. 1995 Jul;36(7):648-56. Japanese.  
PMID: 7563592 [PubMed - indexed for MEDLINE]
- [Hematopoietic growth factors for the treatment of severe chronic neutropenia.](#)
- 80. Dale DC.  
Stem Cells. 1995 Mar;13(2):94-100. Review.  
PMID: 7787781 [PubMed - indexed for MEDLINE] **Free Article**
- [Myelodysplasia and acute myeloid leukaemia in cases of aplastic anaemia and congenital neutropenia following G-CSF administration.](#)
- 81. Imashuku S, Hibi S, Kataoka-Morimoto Y, Yoshihara T, Ikushima S, Morioka Y, Todo S.  
Br J Haematol. 1995 Jan;89(1):188-90.  
PMID: 7530477 [PubMed - indexed for MEDLINE]
- [Deferiprone-associated myelotoxicity.](#)
- 82. al-Refaie FN, Wonke B, Hoffbrand AV.  
Eur J Haematol. 1994 Nov;53(5):298-301.  
PMID: 7813710 [PubMed - indexed for MEDLINE]
- [A review of 125 cases to determine the risk of myelodysplasia and leukemia in pediatric neutropenic patients after treatment with recombinant human granulocyte colony-stimulating factor.](#)
- 83. Imashuku S, Hibi S, Nakajima F, Mitsui T, Yokoyama S, Kojima S, Matsuyama T, Nakahata T, Ueda K, Tsukimoto I, et al.  
Blood. 1994 Oct 1;84(7):2380-1. No abstract available.  
PMID: 7522628 [PubMed - indexed for MEDLINE] **Free Article**
- [Low-dose ARA-C consistently induces hematologic responses in the clinical 5q- syndrome.](#)
- 84. Juneja HS, Jodhani M, Gardner FH, Trevarthen D, Schottstedt M.  
Am J Hematol. 1994 Aug;46(4):338-42.  
PMID: 8037187 [PubMed - indexed for MEDLINE]
- [Post-remission cytopenias following intense induction chemotherapy for acute myeloid leukemia.](#)
- 85. Damon LE, Rugo HS, Ries CA, Linker CA.  
Leukemia. 1994 Apr;8(4):535-41.  
PMID: 8152248 [PubMed - indexed for MEDLINE]
- [A syndrome of facial dysmorphism, birth defects, myelodysplasia and immunodeficiency in three sibs of consanguineous parents.](#)
- 86. Stoll C, Alembik Y, Lutz P.  
Genet Couns. 1994;5(2):161-5.  
PMID: 7917125 [PubMed - indexed for MEDLINE]
- [Allogeneic bone marrow transplantation for 93 patients with myelodysplastic syndrome.](#)
- 87. Anderson JE, Appelbaum FR, Fisher LD, Schoch G, Shulman H, Anasetti C, Bensinger WI, Bryant E, Buckner CD, Doney K, et al.  
Blood. 1993 Jul 15;82(2):677-81.  
PMID: 8329721 [PubMed - indexed for MEDLINE] **Free Article**
- [Southwestern Internal Medicine Conference: clinical use of hematopoietic growth factors.](#)
- 88. Fleischman RA.  
Am J Med Sci. 1993 Apr;305(4):248-73. Review.  
PMID: 7682752 [PubMed - indexed for MEDLINE]
- [Adverse haematological complications of anticancer drugs. Clinical presentation, management and avoidance.](#)
- 89. Bodensteiner DC, Doolittle GC.  
Drug Saf. 1993 Mar;8(3):213-24. Review.  
PMID: 8452662 [PubMed - indexed for MEDLINE]
- [Leukocyte response to toxic injury.](#)
- 90. Weiss DJ.  
Toxicol Pathol. 1993;21(2):135-40. Review.  
PMID: 8210934 [PubMed - indexed for MEDLINE]

- 91. [\[Biological properties and clinical application of filgrastim \(G-CSF\)\].](#)  
Robak T, Krykowski E.  
Acta Haematol Pol. 1993;24(3):239-51. Review. Polish.  
PMID: 7504384 [PubMed - indexed for MEDLINE]
- 92. [Clinical and cytogenetic responses to granulocyte-macrophage colony-stimulating factor in therapy-related myelodysplasia.](#)  
Gradishar WJ, Le Beau MM, O'Laughlin R, Vardiman JW, Larson RA.  
Blood. 1992 Nov 15;80(10):2463-70.  
PMID: 1421369 [PubMed - indexed for MEDLINE] **Free Article**
- 93. [Granulocyte-macrophage colony-stimulating factor \(GM-CSF\): preclinical and clinical investigations.](#)  
Demetri GD, Antman KH.  
Semin Oncol. 1992 Aug;19(4):362-85. Review.  
PMID: 1509275 [PubMed - indexed for MEDLINE]
- 94. [Plasma lactoferrin content in neutropenic patients: effects of treatment with recombinant granulocyte-macrophage colony-stimulating factor.](#)  
Bezwoda WR, Dajee D.  
Mol Biother. 1992 Jun;4(2):103-6.  
PMID: 1515094 [PubMed - indexed for MEDLINE]
- 95. [Recombinant granulocyte-macrophage colony-stimulating factor \(rGM-CSF\). A review of its pharmacological properties and prospective role in the management of myelosuppression.](#)  
Grant SM, Heel RC.  
Drugs. 1992 Apr;43(4):516-60. Review.  
PMID: 1377118 [PubMed - indexed for MEDLINE]
- 96. [Recombinant human hematopoietic growth factors in the treatment of cytopenias.](#)  
Grosh WW, Quesenberry PJ.  
Clin Immunol Immunopathol. 1992 Jan;62(1 Pt 2):S25-38. Review.  
PMID: 1728985 [PubMed - indexed for MEDLINE]
- 97. [Colony-stimulating factors: clinical applications.](#)  
Blackwell S, Crawford J.  
Pharmacotherapy. 1992;12(2 Pt 2):20S-31S. Review.  
PMID: 1598311 [PubMed - indexed for MEDLINE]
- 98. [Recombinant granulocyte colony-stimulating factor \(rG-CSF\). A review of its pharmacological properties and prospective role in neutropenic conditions.](#)  
Hollingshead LM, Goa KL.  
Drugs. 1991 Aug;42(2):300-30. Review.  
PMID: 1717226 [PubMed - indexed for MEDLINE]
- 99. [Acquired cyclic haematopoiesis associated with a radiation-induced chromosomal abnormality with clonal, morphologically normal circulating leucocytes.](#)  
Crown JP, Jhanwar S, Haimi J, Andreef M, Gee T.  
Acta Haematol. 1991;86(2):103-6.  
PMID: 1950369 [PubMed - indexed for MEDLINE]
- 100. [\[Myelodysplasias: clinical experience with 35 patients\].](#)  
Chuecas F, Grebe G, Jalil R, Lira P.  
Rev Med Chil. 1990 Nov;118(11):1211-7. Spanish.  
PMID: 2152645 [PubMed - indexed for MEDLINE]
- 101. [The myelodysplastic syndromes. Case report and review.](#)  
Flint SR, Sugerman P, Scully C, Smith JG, Smith MA.  
Oral Surg Oral Med Oral Pathol. 1990 Nov;70(5):579-83. Review.  
PMID: 2146580 [PubMed - indexed for MEDLINE]
- 102. [Development of folliculitis and pyoderma gangrenosum in association with abdominal pain in a patient following treatment with isotretinoin.](#)  
Hughes BR, Cunliffe WJ.  
Br J Dermatol. 1990 May;122(5):683-7.  
PMID: 2141275 [PubMed - indexed for MEDLINE]
- 103. [Clinical studies of granulocyte colony stimulating factor \(G-CSF\).](#)  
Scarffe JH, Kamthan A.  
Cancer Surv. 1990;9(1):115-30. Review.  
PMID: 1703454 [PubMed - indexed for MEDLINE]
- 104. [Clinical applications of the myeloid growth factors.](#)

104. Glaspy JA, Golde DW.  
Semin Hematol. 1989 Apr;26(2 Suppl 2):14-7. Review.  
PMID: 2471274 [PubMed - indexed for MEDLINE]
- [Decreased interleukin 1 production in aplastic anaemia.](#)
105. Nakao S, Matsushima K, Young N.  
Br J Haematol. 1989 Mar;71(3):431-6.  
PMID: 2784689 [PubMed - indexed for MEDLINE]
- [\[Neutropenic enterocolitis\].](#)
106. von Herbay A, Möller P, Ludwig W, Otto HF.  
Dtsch Med Wochenschr. 1989 Feb 24;114(8):293-7. German.  
PMID: 2920674 [PubMed - indexed for MEDLINE]
- [A myelokathexis-like variant of myelodysplasia.](#)
107. Rassam SM, Roderick P, al-Hakim I, Hoffbrand AV.  
Eur J Haematol. 1989 Jan;42(1):99-102.  
PMID: 2914601 [PubMed - indexed for MEDLINE]
- [HIV-related thrombocytopenic purpura: a study of 24 cases.](#)
108. Brusamolino E, Malfitano A, Pagnucco G, Sacchi P, Orlandi E, Dornini G, Minoli L, Bernasconi C.  
Haematologica. 1989 Jan-Feb;74(1):51-6.  
PMID: 2498184 [PubMed - indexed for MEDLINE]
- [Ringed sideroblasts in primary myelodysplasia. Leukemic propensity and prognostic factors.](#)
109. Vanderمولen L, Rice L, Rose MA, Lynch EC.  
Arch Intern Med. 1988 Mar;148(3):653-6.  
PMID: 3341866 [PubMed - indexed for MEDLINE]
- [Myelodysplastic syndrome: identification in the routine hematology laboratory.](#)
110. Rappaport ES, Helbert B, Ladd DJ, Trowbridge AA.  
South Med J. 1987 Aug;80(8):969-74.  
PMID: 3616725 [PubMed - indexed for MEDLINE]
- [Pancytopenia with hypercellular bone marrow--a possible paraneoplastic syndrome in carcinoma of the lung: a report of three cases.](#)
111. Raz I, Shinar E, Polliack A.  
Am J Hematol. 1984 May;16(4):403-8.  
PMID: 6720684 [PubMed - indexed for MEDLINE]
- [\[Studies on a case of cyclic myelodysplasia \(author's trans\)\].](#)
112. Komiya M, Abe T, Furusawa S, Komatsu H, Enokihara H.  
Nippon Ketsueki Gakkai Zasshi. 1975 Oct;38(5):515-30. Japanese. No abstract available.  
PMID: 1243725 [PubMed - indexed for MEDLINE]

# PubMed

Search: p14 protein deficiency and case reports

U.S. National Library of Medicine  
National Institutes of Health

See the search [details](#).

No items found.

## Are you looking for gene information?

Source: Gene Database

[See 1244 articles](#) about **p14** gene function

**p14** protein 14 [Melon necrotic spot virus]

**p14** in [Melon necrotic spot virus](#) | [Bacteriophage APSE-2](#) | [Candidatus Hamiltonella defensa 5AT Acyrthosiphon pisum](#) | [All 16 Gene records](#)



# PubMed

Search: P14 protein deficiency and case reports

U.S. National Library of Medicine  
National Institutes of Health

See the search [details](#).

No items found.

Limits Activated: Humans [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 1270 articles](#) about **p14** gene function

**p14** protein 14 [Melon necrotic spot virus]

**p14** in [Melon necrotic spot virus](#) | [Bacteriophage APSE-2](#) | [Candidatus Hamiltonella defensa 5AT](#) [Acyrtosiphon pisum](#) | [All 16 Gene records](#)

# PubMed

Search: Mapbpip protein deficiency and case report

U.S. National Library of Medicine  
National Institutes of Health

See the search [details](#).

No items found.

Limits Activated: Humans [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 5 articles](#) about **mapbpip** gene function

**mapbpip** hypothetical protein [Dictyostelium discoideum AX4]

**mapbpip** in [Dictyostelium discoideum AX4](#) | [Macaca mulatta](#) | [Homo sapiens](#) | [All 10 Gene records](#)

# PubMed

**Search:** Endosomal adaptor protein 14 deficiency and case report

U.S. National Library of Medicine  
National Institutes of Health

See the search [details](#).

No items found.

**Limits Activated:** Humans [Change](#) | [Remove](#)

---

## PubMed

Search: "Endosomal adaptor protein 14"

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (17)

Display Settings: Summary, 20 per page, Sorted by Recently Added

[Manage Filters](#)

Quoted phrase not found.

See the search [details](#).Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 17

- [Arrestin-2 interacts with the endosomal sorting complex required for transport machinery to modulate endosomal sorting of CXCR4.](#)
  1. Malik R, Marchese A.  
Mol Biol Cell. 2010 Jul 15;21(14):2529-41. Epub 2010 May 26.  
PMID: 20505072 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [SKIP, the host target of the Salmonella virulence factor SifA, promotes kinesin-1-dependent vacuolar membrane exchanges.](#)
  2. Dumont A, Boucrot E, Drevensek S, Daire V, Gorvel JP, Poüs C, Holden DW, Méresse S.  
Traffic. 2010 Jul 1;11(7):899-911. Epub 2010 Apr 6.  
PMID: 20406420 [PubMed - indexed for MEDLINE]
  
- [Endosomal proteolysis of internalised \[ArgA0\]-human insulin at neutral pH generates the mature insulin peptide in rat liver in vivo.](#)
  3. Kouach M, Desbuquois B, Authier F.  
Diabetologia. 2009 Dec;52(12):2621-32. Epub 2009 Oct 16.  
PMID: 19834685 [PubMed - indexed for MEDLINE]
  
- [Lysosomal localization of GLUT8 in the testis--the EXXXLL motif of GLUT8 is sufficient for its intracellular sorting via AP1- and AP2-mediated interaction.](#)
  4. Diril MK, Schmidt S, Krauss M, Gawlik V, Joost HG, Schürmann A, Haucke V, Augustin R.  
FEBS J. 2009 Jul;276(14):3729-43. Epub 2009 Jun 11.  
PMID: 19523115 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Functional roles of short sequence motifs in the endocytosis of membrane receptors.](#)
  5. Pandey KN.  
Front Biosci. 2009 Jun 1;14:5339-60. Review.  
PMID: 19482617 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Free cholesterol accumulation in macrophage membranes activates Toll-like receptors and p38 mitogen-activated protein kinase and induces cathepsin K.](#)
  6. Sun Y, Ishibashi M, Seimon T, Lee M, Sharma SM, Fitzgerald KA, Samokhin AO, Wang Y, Sayers S, Aikawa M, Jerome WG, Ostrowski MC, Bromme D, Libby P, Tabas IA, Welch CL, Tall AR.  
Circ Res. 2009 Feb 27;104(4):455-65. Epub 2009 Jan 2.  
PMID: 19122179 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [How HIV-1 hijacks ALIX.](#)
  7. Göttlinger HG.  
Nat Struct Mol Biol. 2007 Apr;14(4):254-6. No abstract available.  
PMID: 17410087 [PubMed - indexed for MEDLINE]
  
- [The endosome-associated protein Hrs is hexameric and controls cargo sorting as a "master molecule".](#)
  8. Pullan L, Mullapudi S, Huang Z, Baldwin PR, Chin C, Sun W, Tsujimoto S, Kolodziej SJ, Stoops JK, Lee JC, Waxham MN, Bean AJ, Penczek PA.  
Structure. 2006 Apr;14(4):661-71.  
PMID: 16615908 [PubMed - indexed for MEDLINE]
  
- [Mechanism for removal of tumor necrosis factor receptor 1 from the cell surface by the adenovirus RIDalpha/beta complex.](#)
  9. Chin YR, Horwitz MS.  
J Virol. 2005 Nov;79(21):13606-17.  
PMID: 16227281 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [The adaptor protein ARH escorts megalin to and through endosomes.](#)
  10. Nagai M, Meerloo T, Takeda T, Farquhar MG.  
Mol Biol Cell. 2003 Dec;14(12):4984-96. Epub 2003 Oct 3.  
PMID: 14528014 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [STAM proteins bind ubiquitinated proteins on the early endosome via the VHS domain and ubiquitin-interacting motif.](#)
  11. Mizuno E, Kawahata K, Kato M, Kitamura N, Komada M.  
Mol Biol Cell. 2003 Sep;14(9):3675-89. Epub 2003 Jun 13.  
PMID: 12972556 [PubMed - indexed for MEDLINE] **Free PMC Article**

- [Sorting nexin 9 participates in clathrin-mediated endocytosis through interactions with the core components.](#)
- 12. Lundmark R, Carlsson SR.  
J Biol Chem. 2003 Nov 21;278(47):46772-81. Epub 2003 Sep 2.  
PMID: 12952949 [PubMed - indexed for MEDLINE] **Free Article**
  
- [The AP-1 clathrin-adaptor is required for lysosomal enzymes sorting and biogenesis of the contractile vacuole complex in Dictyostelium cells.](#)
- 13. Lefkir Y, de Chasse B, Dubois A, Bogdanovic A, Brady RJ, Destaing O, Bruckert F, O'Halloran TJ, Cosson P, Letourneur F.  
Mol Biol Cell. 2003 May;14(5):1835-51. Epub 2003 Jan 26.  
PMID: 12802059 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [STAM and Hrs are subunits of a multivalent ubiquitin-binding complex on early endosomes.](#)
- 14. Bache KG, Raiborg C, Mehlum A, Stenmark H.  
J Biol Chem. 2003 Apr 4;278(14):12513-21. Epub 2003 Jan 27.  
PMID: 12551915 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Alix \(ALG-2-interacting protein X\), a protein involved in apoptosis, binds to endophilins and induces cytoplasmic vacuolization.](#)
- 15. Chatellard-Causse C, Blot B, Cristina N, Torch S, Missotten M, Sadoul R.  
J Biol Chem. 2002 Aug 9;277(32):29108-15. Epub 2002 May 28.  
PMID: 12034747 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Refinement of the PARK3 locus on chromosome 2p13 and the analysis of 14 candidate genes.](#)
- 16. West AB, Zimprich A, Lockhart PJ, Farrer M, Singleton A, Holtom B, Lincoln S, Hofer A, Hill L, Müller-Myhsok B, Wszolek ZK, Hardy J, Gasser T.  
Eur J Hum Genet. 2001 Sep;9(9):659-66.  
PMID: 11571553 [PubMed - indexed for MEDLINE] **Free Article**
  
- [A human phosphatidylinositol 3-kinase complex related to the yeast Vps34p-Vps15p protein sorting system.](#)
- 17. Volinia S, Dhand R, Vanhaesebroeck B, MacDougall LK, Stein R, Zvelebil MJ, Domin J, Panaretou C, Waterfield MD.  
EMBO J. 1995 Jul 17;14(14):3339-48.  
PMID: 7628435 [PubMed - indexed for MEDLINE] **Free PMC Article**

## Results: 10

1. [Pediatr Blood Cancer](#). 2008 Sep;51(3):436-8.

## Lethal graft-versus-host disease in congenital neutropenia caused by p14 deficiency after allogeneic bone marrow transplantation from an HLA-identical sibling.

Bohn G, Hardtke-Wolenski M, Zeidler C, Maecker B, Sauer M, Sykora KW, Grigull L, Welte K, Klein C.

Department of Pediatric Hematology and Oncology, Hannover Medical School, OE 6780, Carl-Neuberg-Str. 1, 30625 Hannover, Germany.

### Abstract

The molecular heterogeneity of severe congenital neutropenia (SCN) is increasingly recognized and may influence the risk-benefit assessment of therapeutic strategies. We report on a patient with p14 deficiency who succumbed to severe grade IV graft-versus-host disease (GvHD) after a human leukocyte antigen-identical bone marrow transplantation (BMT) from a sibling donor. Before BMT, in vitro generated p14-deficient dendritic cells showed a markedly elevated tumor necrosis factor (TNF-) alpha production upon toll-like receptor stimulation. We hypothesize that p14 deficiency predisposes to GvHD through increased TNF-alpha production. Adequate genetic testing is needed to prospectively assess potential risk factors for GvHD in defined SCN subgroups.

(c) 2008 Wiley-Liss, Inc.

PMID: 18523989 [PubMed - indexed for MEDLINE]



[Publication Types](#), [MeSH Terms](#), [Substances](#)

2. [Prenat Diagn](#). 2005 Dec;25(12):1133-7.

## Prenatal diagnosis of monosomy 4p14-->pter and trisomy 11q25-->qter: clinical presentations and outcomes.

Peng HH, Wang TH, Chao AS, Chang YL, Chang SD, Soong YK.

Department of Obstetrics and Gynecology, Chang Gung Memorial Hospital, Lin-ko Medical Center, Kwei-Shan, Tao-Yuan, Taiwan.

### Abstract

We present the case of a pregnant woman with low free beta-HCG in maternal serum Down syndrome screening that led to prenatal diagnosis of a fetus with 46,XY,der(4)t(4;11)(p14; q25). This chromosomal aneuploidy resulted from unbalanced segregation of a paternal balanced translocation, t(4;11)(p14;q25). Prenatal ultrasound revealed intrauterine growth restriction, cleft lip and palate, a thick nuchal fold, a single umbilical artery, and pyelectasis. Array-based comparative genomic hybridization and short tandem repeat markers further located the exact breakpoint of translocation. The woman had her pregnancy terminated at 23 weeks of gestational age. The proband had general appearance of Wolf-Hirschhorn syndrome and some unique findings, including single umbilical artery, severe immunoglobulin deficiency, scalp defect, and underlying bony defect. Our case underscores the importance of fetal karyotyping when low maternal serum free beta-HCG is found. It also adds information on the fetal presentations of monosomy 4p14-->pter and trisomy 11q25-->qter.

Copyright 2005 John Wiley & Sons, Ltd

PMID: 16231301 [PubMed - indexed for MEDLINE]



[Publication Types](#), [MeSH Terms](#), [Substances](#)

3. [Eur J Hum Genet](#). 2005 Apr;13(4):409-13.

## Combination of WAGR and Potocki-Shaffer contiguous

## deletion syndromes in a patient with an 11p11.2-p14 deletion.

Brémond-Gignac D, Crolla JA, Copin H, Guichet A, Bonneau D, Taine L, Lacombe D, Baumann C, Benzacken B, Verloes A.

Department of Ophthalmology, Robert Debré Hospital, AP-HP, Paris, France.

### Abstract

Aniridia, Wilms tumor, genitourinary abnormalities, growth and mental retardation are the cardinal features of the WAGR 11p13 deletion syndrome. The Potocki-Schaffer syndrome or proximal 11p deletion syndrome (previously DEFECT11 syndrome) is a contiguous gene syndrome associated with deletions in 11p11.2, principal features of which are multiple exostoses and enlarged parietal foramina. Mental handicap, facial dysmorphism and craniosynostosis may also be associated. We report a patient with combined WAGR and Potocki-Schaffer syndromes, and obesity. She presented with aniridia, cataract, nystagmus, corneal ulcers and bilateral congenital ptosis. A left nephroblastoma was detected at 15 months. Other features included moderate developmental delay, growth deficiency, facial dysmorphism, multiple exostoses and cranial lacunae. High-resolution and molecular cytogenetics confirmed a del(11)(p11.2p14.1) deletion with a proximal breakpoint between the cosmid DO8153 and the BAC RP11-104M24 to a distal breakpoint between cosmids CO8160 (D11S151) and F1238 (D11S1446). The deletion therefore includes EXT2, ALX4, WT1 and PAX6. This case appears to be the second patient reported with this combined deletion syndrome and confirms the association of obesity in the WAGR spectrum, a feature previously reported in four cases, and for which the acronym WAGRO has been suggested. Molecular and follow-up data on the original WAGRO case are briefly presented.

PMID: 15702131 [PubMed - indexed for MEDLINE] [Free Article](#)



Publication Types, MeSH Terms

4. [Am J Med Genet.](#) 2002 Jul 15;110(4):353-8.

## Unbalanced translocation (3;5)(q26.1;p14): a clinical report.

Rossi M, Di Micco P, Perone L, De Brasi D, Guzzetta V, Andreucci MV, Vega GR, Marzano MG, Iaccarino E, Andria G.

Department of Pediatrics, Federico II University, Naples, Italy.

### Abstract

A patient with a multiple congenital anomalies/mental retardation (MCA/MR) syndrome had an unbalanced translocation (3;5)(q26.1;p14), causing partial 5p monosomy and partial 3q trisomy. The phenotype observed in this patient results from the combination of those described in the isolated dup(3q) and del(5p) syndromes. Some clinical features of this patient are shared by the Smith-Lemli-Opitz syndrome (SLOS), a well-known MCA/MR syndrome due to the deficiency of 7-dehydrocholesterol reductase (DHCR7). We review the previously reported cases of chromosomal anomalies with clinical features suggesting SLOS.

Copyright 2002 Wiley-Liss, Inc.

PMID: 12116209 [PubMed - indexed for MEDLINE]



Publication Types, MeSH Terms

5. [Hum Genet.](#) 2000 Nov;107(5):415-32.

## Interchromosomal insertions. Identification of five cases and a review.

Van Hemel JO, Eussen HJ.

Department of Clinical Genetics, University Hospital Dijkzigt, Erasmus University, Rotterdam, The Netherlands. vanhemel@kgen.fgg.eur.nl

### Abstract

In five families with questionable chromosome rearrangements, we identified an interchromosomal insertion by fluorescent in situ hybridization (FISH). In case 1 with a dir ins (5;11)(p14;q14q24) in three generations, the mentally retarded and microcephalic proband showed a 5p14-->pter deletion. In case 2, a duplication (13)(q21.31--> q31.2) combined with a deletion (11)(q14-->q22) segregated from a reciprocal ins(11;13)(q14q122)(q21.32q31.2), causing a mixed phenotype with psychomotor retardation, caput quadratum, choanal atresia, and pes equinovarus. In case 3, a dir ins (18;5)(q21.3;p13.1p14) was associated with spontaneous abortions, in case 4, the proband with mental retardation, microcephaly, and a heart defect showed a pure trisomy of (12)(q13-->q15), which had segregated from a carrier of an ins (18;12)(p11.3;q13q15). In case 5, a duplication of (10)(q26.3-->q25.2) segregated from an inv

ins(5;10)(q15;q26.3q25.2), which was passed on directly from a mother to her son, with mental retardation. In all families the elucidation of the insertional translocation (IT) considerably increased the associated genetic risks of carriers. For the review, we collected data from 81 articles on 87 IT probands on ascertainment, origin, familial transmittance, progeny, and genetic risks of IT carriers. We also discussed the recombinant chromosomes and complex rearrangements associated with ITs, and listed chromosome regions occurring solely as deletions, or solely as duplications, or as both to facilitate genotype/phenotype correlations. We conclude that ITs are rare chromosomal rearrangements with an 1:80,000 incidence, of which nearly 80% were referred because of congenital abnormalities and mental retardation. A maternal origin was seen in 59.5%, a paternal origin in 26.6%, and 13.9% were de novo. No notable difference in fertility between male and female IT carriers was noticed. Bias of ascertainment was excluded in 15 familial cases and led to an estimate of the genetic risks for IT carriers of 32.0-36.0%. The mean size of the inserted regions occurring solely as duplications (n=39) measures 0.96% of the haploid autosomal length (HAL), and of regions solely occurring as deletions (n=14) 0.47% HAL. In the families where both aneusomies occurred, the size of the insertions ranged between 0.22 and 1.21% HAL. Overall, the findings fit with the general idea that a surplus of genetic material is tolerated more easily than a deficiency.

PMID: 11140939 [PubMed - indexed for MEDLINE]



Publication Types, MeSH Terms, Substances

6. [Am J Med Genet.](#) 1998 May 26;77(4):257-60.

## Partial trisomy 1q with growth hormone deficiency and normal intelligence.

Schorry EK, Dietrich KN, Saal HM, Blough RI, Dey S, Chernausek S, Milatovich-Cherry A.

Division of Human Genetics, Children's Hospital Medical Center, Cincinnati, Ohio 45229, USA.

### Abstract

We present two sibs with partial trisomy 1 (q31.1-q32.1) due to a familial insertion. Patient 1 is a girl who presented at age 9 months with minor anomalies, short stature, and normal psychomotor development. Karyotype was 46,XX,der(4)ins(4;1)(p14;q31.1q32.1)pat. The father had a balanced inverted insertion of 1q into 4p, with karyotype 46,XY,ins(4;1)(p14;q31.1q32.1). At age 5 years, patient 1 was found to have short stature with documented growth hormone deficiency and ectopic pituitary. Her growth velocity responded well to treatment with growth hormone. Cognitive testing at 5 9/12 years showed normal intelligence with an IQ of 90. Patient 2, the brother of patient 1, presented with intrauterine growth retardation. He has the same chromosomal insertion as his sister, with partial trisomy 1q. We suggest that there is a recognizable phenotype of trisomy 1(q31.1-q32.1) which includes prenatal and postnatal growth retardation, narrow palpebral fissures, microphthalmia, microstomia, pituitary abnormalities, and normal intelligence in some individuals.

PMID: 9600731 [PubMed - indexed for MEDLINE]



Publication Types, MeSH Terms, Substances

7. [Electroencephalogr Clin Neurophysiol.](#) 1992 Sep-Oct;84(5):433-9.

## Central sensory and motor conduction in vitamin B12 deficiency.

Di Lazzaro V, Restuccia D, Fogli D, Nardone R, Mazza S, Tonali P.

Department of Neurology, Catholic University, Rome, Italy.

### Abstract

Four patients with subacute combined degeneration were studied through upper and lower limb SEPs recorded with a non-cephalic reference montage and through cortical and spinal magnetic stimulation. Clinical signs were confined to the lower limbs in 3 patients; the remaining patient presented only paraesthesiae in 4 limbs. Median nerve SEPs showed a normal cervical N13 response with a significant increase of central conduction time concerning exclusively the P9-P14 interpeak interval. Central motor conduction to upper and lower limb muscles was abnormal. Nerve conduction studies provided no evidence of peripheral nerve involvement. These electrophysiological findings suggest that in vitamin B12 deficiency the higher segments of the cervical cord are usually affected first and that central sensory and motor conduction studies are sensitive methods for detecting such damage.

PMID: 1382952 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms



Rev Neurol (Paris). 1991;147(11):723-6.

## [Course of central somatosensory conduction in a case of vitamin B12 deficiency].

[Article in French]

Delberghe X, Brunko E, Zegers de Beyl D.

Service de Neurologie, Hôpital Erasme, Bruxelles, Belgique.

### Abstract

We report clinical and neurophysiological data of a 58 year-old man with vitamin B12 deficiency and a 6 years follow-up. The initial clinical disorders did not permit a clear distinction between peripheral and central nervous system disease. Detailed analysis of the somatosensory central conduction time (measured from onset latencies of N11 and N20) showed clear evidence of slowed down conduction at spinal cervical level (reflected by the N11-P14 interval) whereas supraspinal conduction (as shown by the P14-N20 interval) was normal. The patient's condition improved under treatment, and the somatosensory central conduction time was progressively shortened. After 6 years of treatment, the neurological examination and the somatosensory central conduction interval were normal. However, analysis of the spinal conduction still showed slowed down conduction.

PMID: 1775826 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms

9. J Genet Hum. 1983 Mar;31(1):31-6.

## [Chromosome 11 and cancer].

[Article in French]

Gregoire MJ, Pernot C, Himont F, Pierson M, Gilgenkrantz S.

### Abstract

Two cases with chromosome 11 anomaly related to cancer are reported. The first one has a pericentric inversion (inv. p14 q12) with sympathoblastoma and Ondine's curse. The second one has a deletion (11p13) with aniridia and catalase deficiency but without Wilms tumor at two year of age. Retinoblastoma, nephroblastoma and sympathoblastoma may be related to genome modification. The mechanism of oncogenesis are discussed.

PMID: 6311963 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms

10. Hum Genet. 1981;57(3):300-6.

## Aniridia, male pseudohermaphroditism, gonadoblastoma, mental retardation, and del 11p13.

Turleau C, de Grouchy J, Dufier JL, Phuc LH, Schmelck PH, Rappaport R, Nihoul-Fékété C, Diebold N.

### Abstract

A 20-month-old male patient was referred because of severe growth and mental retardation, bilateral glaucoma, hypospadias, and cryptorchidism. Karyotyping revealed a de novo complex three-chromosome rearrangement as well as deletion of band 11p13:46,XY,t(4;7;15)(q212;p14;q26)del(11)(p13p14). Trabeculectomy revealed bilateral aniridia. Surgery on the genitalia revealed male pseudohermaphroditism and bilateral gonadoblastoma. The kidneys were normal. A deficiency in catalase (CAT) activity allowed the regional assignment of the CAT gene to band 11p13.

PMID: 6114032 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms

## Results: 15

1. [Successful treatment of \*Fusarium solani\* ecthyma gangrenosum in a patient affected by leukocyte adhesion deficiency type 1 with granulocytes transfusions.](#)  
Mellouli F, Ksouri H, Barbouche R, Maamer M, Hamed LB, Hmida S, Hassen AB, Béjaoui M.  
BMC Dermatol. 2010 Oct 7;10:10.  
PMID: 20929531 [PubMed - indexed for MEDLINE] **Free PMC Article**
2. [Delayed wound healing in leukocyte adhesion deficiency type 1.](#)  
Wada T, Tone Y, Shibata F, Toma T, Yachie A.  
J Pediatr. 2011 Feb;158(2):342. Epub 2010 Sep 16. No abstract available.  
PMID: 20843524 [PubMed - indexed for MEDLINE]
3. [Pyoderma gangrenosum after bone marrow transplantation for leukocyte adhesion deficiency type 1.](#)  
Elenberg Y, Shani-Adir A, Hecht Y, Ephros M, Bibi H.  
Isr Med Assoc J. 2010 Feb;12(2):119-20. No abstract available.  
PMID: 20550039 [PubMed - indexed for MEDLINE] **Free Article**
4. [Characterization of 11 new cases of leukocyte adhesion deficiency type 1 with seven novel mutations in the ITGB2 gene.](#)  
Parvaneh N, Mamishi S, Rezaei A, Rezaei N, Tamizifar B, Parvaneh L, Sherkat R, Ghalehbaghi B, Kashef S, Chavoshzadeh Z, Iseeian A, Ashrafi F, Aghamohammadi A.  
J Clin Immunol. 2010 Sep;30(5):756-60. Epub 2010 Jun 12.  
PMID: 20549317 [PubMed - indexed for MEDLINE]
5. [A novel point mutation in CD18 causing leukocyte adhesion deficiency in a Chinese patient.](#)  
Li L, Jin YY, Cao RM, Chen TX.  
Chin Med J (Engl). 2010 May 20;123(10):1278-82.  
PMID: 20529581 [PubMed - indexed for MEDLINE] **Free Article**
6. [High-dose continuous infusion beta-lactam antibiotics for the treatment of resistant \*Pseudomonas aeruginosa\* infections in immunocompromised patients.](#)  
Moriyama B, Henning SA, Childs R, Holland SM, Anderson VL, Morris JC, Wilson WH, Drusano GL, Walsh TJ.  
Ann Pharmacother. 2010 May;44(5):929-35. Epub 2010 Apr 6.  
PMID: 20371747 [PubMed - indexed for MEDLINE]
7. [Osteomyelitis in leukocyte adhesion deficiency type 1 syndrome.](#)  
Jabbari Azad F, Ardalan M, Hoseinpoor Rafati A, Sotoudeh S, Pourpak Z.  
J Infect Dev Ctries. 2010 Mar 29;4(3):175-8.  
PMID: 20351460 [PubMed - indexed for MEDLINE] **Free Article**
8. [Leukocyte adhesion deficiency type 1 presenting as leukemoid reaction.](#)  
Alizadeh P, Rahbarimanesh AA, Bahram MG, Salmasian H.  
Indian J Pediatr. 2007 Dec;74(12):1121-3.  
PMID: 18174651 [PubMed - indexed for MEDLINE]
9. [Leukocyte adhesion deficiency type 1: an important consideration in the clinical differential diagnosis of prepubertal periodontitis. A case report and review of the literature.](#)  
Cox DP, Weathers DR.  
Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2008 Jan;105(1):86-90. Epub 2007 Jul 6. Review.  
PMID: 17618138 [PubMed - indexed for MEDLINE]
10. [Leukocyte adhesion deficiency in a female patient without delayed umbilical cord separation.](#)  
Webber EC, Church J, Rand TH, Shah AJ.  
J Paediatr Child Health. 2007 May;43(5):406-8.  
PMID: 17489834 [PubMed - indexed for MEDLINE]
11. [Somatic revertant mosaicism in a patient with leukocyte adhesion deficiency type 1.](#)  
Tone Y, Wada T, Shibata F, Toma T, Hashida Y, Kasahara Y, Koizumi S, Yachie A.  
Blood. 2007 Feb 1;109(3):1182-4.  
PMID: 17244687 [PubMed - indexed for MEDLINE] **Free Article**

- 12.  [Unique CD18 mutations involving a deletion in the extracellular stalk region and a major truncation of the cytoplasmic domain in a patient with leukocyte adhesion deficiency type 1.](#)  
Hixson P, Smith CW, Shurin SB, Tosi MF.  
Blood. 2004 Feb 1;103(3):1105-13. Epub 2003 Sep 25.  
PMID: 14512306 [PubMed - indexed for MEDLINE] **Free Article**
  
- 13.  [Retroviral-mediated gene transfer of the leukocyte integrin CD18 into peripheral blood CD34+ cells derived from a patient with leukocyte adhesion deficiency type 1.](#)  
Bauer TR, Schwartz BR, Liles WC, Ochs HD, Hickstein DD.  
Blood. 1998 Mar 1;91(5):1520-6.  
PMID: 9473215 [PubMed - indexed for MEDLINE] **Free Article**
  
- 14.  [Leukocyte adhesion deficiency type 1 \(LAD-1\)/variant. A novel immunodeficiency syndrome characterized by dysfunctional beta2 integrins.](#)  
Kuijpers TW, Van Lier RA, Hamann D, de Boer M, Thung LY, Weening RS, Verhoeven AJ, Roos D.  
J Clin Invest. 1997 Oct 1;100(7):1725-33.  
PMID: 9312170 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- 15.  [A point mutation associated with leukocyte adhesion deficiency type 1 of moderate severity.](#)  
Back AL, Kerkering M, Baker D, Bauer TR, Embree LJ, Hickstein DD.  
Biochem Biophys Res Commun. 1993 Jun 30;193(3):912-8.  
PMID: 7686755 [PubMed - indexed for MEDLINE]

# PubMed

Search: Leukocyte adhesion deficiency type I and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (43)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 43

1. [Successful treatment of Fusarium solani ecthyma gangrenosum in a patient affected by leukocyte adhesion deficiency type 1 with granulocytes transfusions.](#)  
Mellouli F, Ksouri H, Barbouche R, Maamer M, Hamed LB, Hmida S, Hassen AB, Béjaoui M.  
BMC Dermatol. 2010 Oct 7;10:10.  
PMID: 20929531 [PubMed - indexed for MEDLINE] **Free PMC Article**
2. [Delayed wound healing in leukocyte adhesion deficiency type 1.](#)  
Wada T, Tone Y, Shibata F, Toma T, Yachie A.  
J Pediatr. 2011 Feb;158(2):342. Epub 2010 Sep 16. No abstract available.  
PMID: 20843524 [PubMed - indexed for MEDLINE]
3. [Periodontal manifestation of leukocyte adhesion deficiency type I.](#)  
Toomarian L, Hashemi N.  
Arch Iran Med. 2010 Jul;13(4):355-9.  
PMID: 20597571 [PubMed - indexed for MEDLINE] **Free Article**
4. [Pyoderma gangrenosum after bone marrow transplantation for leukocyte adhesion deficiency type 1.](#)  
Elenberg Y, Shani-Adir A, Hecht Y, Ephros M, Bibi H.  
Isr Med Assoc J. 2010 Feb;12(2):119-20. No abstract available.  
PMID: 20550039 [PubMed - indexed for MEDLINE] **Free Article**
5. [Characterization of 11 new cases of leukocyte adhesion deficiency type 1 with seven novel mutations in the ITGB2 gene.](#)  
Parvaneh N, Mamishi S, Rezaei A, Rezaei N, Tamizifar B, Parvaneh L, Sherkat R, Ghalebhaghi B, Kashef S, Chavoshzadeh Z, Ishaiean A, Ashrafi F, Aghamohammadi A.  
J Clin Immunol. 2010 Sep;30(5):756-60. Epub 2010 Jun 12.  
PMID: 20549317 [PubMed - indexed for MEDLINE]
6. [A novel point mutation in CD18 causing leukocyte adhesion deficiency in a Chinese patient.](#)  
Li L, Jin YY, Cao RM, Chen TX.  
Chin Med J (Engl). 2010 May 20;123(10):1278-82.  
PMID: 20529581 [PubMed - indexed for MEDLINE] **Free Article**
7. [High-dose continuous infusion beta-lactam antibiotics for the treatment of resistant Pseudomonas aeruginosa infections in immunocompromised patients.](#)  
Moriyama B, Henning SA, Childs R, Holland SM, Anderson VL, Morris JC, Wilson WH, Drusano GL, Walsh TJ.  
Ann Pharmacother. 2010 May;44(5):929-35. Epub 2010 Apr 6.  
PMID: 20371747 [PubMed - indexed for MEDLINE]
8. [Osteomyelitis in leukocyte adhesion deficiency type 1 syndrome.](#)  
Jabbari Azad F, Ardalan M, Hoseinpoor Rafati A, Sotoudeh S, Pourpak Z.  
J Infect Dev Ctries. 2010 Mar 29;4(3):175-8.  
PMID: 20351460 [PubMed - indexed for MEDLINE] **Free Article**
9. [Leukocyte adhesion deficiency type II: long-term follow-up and review of the literature.](#)  
Gazit Y, Mory A, Etzioni A, Frydman M, Scheuerman O, Gershoni-Baruch R, Garty BZ.  
J Clin Immunol. 2010 Mar;30(2):308-13. Epub 2010 Jan 23. Review.  
PMID: 20099014 [PubMed - indexed for MEDLINE]
10. [ITGB2 mutation combined with deleted ring 21 chromosome in a child with leukocyte adhesion deficiency.](#)  
Fiorini M, Piovani G, Schumacher RF, Magri C, Bertini V, Mazzolari E, Notarangelo L, Notarangelo LD, Barlati S.  
J Allergy Clin Immunol. 2009 Dec;124(6):1356-8. Epub . No abstract available.  
PMID: 19864007 [PubMed - indexed for MEDLINE]
11. [Chronic eczema in a patient with Leukocyte Adhesion Deficiency \(LAD\) type I.](#)  
Eyerich K, Cifaldi L, Notarangelo LD, Porta F, Notarangelo L, Mazzolari E, Fiorini M, Paradisi A, Cavani A.  
Eur J Dermatol. 2009 Jan-Feb;19(1):78-9. No abstract available.  
PMID: 19171538 [PubMed - indexed for MEDLINE]
12. [The clinical spectrum of leukocyte adhesion deficiency \(LAD\) III due to defective CalDAG-GEF1.](#)  
Kilic SS, Etzioni A.  
J Clin Immunol. 2009 Jan;29(1):117-22. Epub 2008 Aug 16.  
PMID: 18709451 [PubMed - indexed for MEDLINE]

- 13. [Periodontal manifestation of leukocyte adhesion deficiency type I.](#)  
Dababneh R, Al-Wahadneh AM, Hamadneh S, Khouri A, Bissada NF.  
J Periodontol. 2008 Apr;79(4):764-8.  
PMID: 18380573 [PubMed - indexed for MEDLINE]
- 14. [Leukocyte adhesion deficiency type 1 presenting as leukemoid reaction.](#)  
Alizadeh P, Rahbarimanesh AA, Bahram MG, Salmasian H.  
Indian J Pediatr. 2007 Dec;74(12):1121-3.  
PMID: 18174651 [PubMed - indexed for MEDLINE]
- 15. [Successful nonmyeloablative bone marrow transplantation for leukocyte adhesion deficiency type I from an unrelated donor.](#)  
Tokunaga M, Miyamura K, Ohashi H, Ishiwada N, Terakura S, Ikeguchi M, Kuwatsuka Y, Inamoto Y, Oba T, Tsuchiya S, Kodera Y.  
Int J Hematol. 2007 Jul;86(1):91-5.  
PMID: 17675274 [PubMed - indexed for MEDLINE]
- 16. [Neutrophil function and molecular analysis in severe leukocyte adhesion deficiency type I without separation delay of the umbilical cord.](#)  
Tsai YC, Lee WI, Huang JL, Hung IJ, Jaing TH, Yao TC, Chen MT, Kuo ML.  
Pediatr Allergy Immunol. 2008 Feb;19(1):25-32. Epub 2007 Jul 25.  
PMID: 17651379 [PubMed - indexed for MEDLINE]
- 17. [Leukocyte adhesion deficiency type 1: an important consideration in the clinical differential diagnosis of prepubertal periodontitis. A case report and review of the literature.](#)  
Cox DP, Weathers DR.  
Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2008 Jan;105(1):86-90. Epub 2007 Jul 6. Review.  
PMID: 17618138 [PubMed - indexed for MEDLINE]
- 18. [Leukocyte adhesion deficiency in a female patient without delayed umbilical cord separation.](#)  
Webber EC, Church J, Rand TH, Shah AJ.  
J Paediatr Child Health. 2007 May;43(5):406-8.  
PMID: 17489834 [PubMed - indexed for MEDLINE]
- 19. [Somatic revertant mosaicism in a patient with leukocyte adhesion deficiency type 1.](#)  
Tone Y, Wada T, Shibata F, Toma T, Hashida Y, Kasahara Y, Koizumi S, Yachie A.  
Blood. 2007 Feb 1;109(3):1182-4.  
PMID: 17244687 [PubMed - indexed for MEDLINE] **Free Article**
- 20. [Bone marrow transplantation for leukocyte adhesion deficiency-I: case report.](#)  
Al-wahadneh AM, Haddadin I, Hamouri M, Omari K, Aejellat F.  
Saudi J Kidney Dis Transpl. 2006 Dec;17(4):564-7.  
PMID: 17186693 [PubMed - indexed for MEDLINE] **Free Article**
- 21. [Natural history and early diagnosis of LAD-1/variant syndrome.](#)  
Kuijpers TW, van Bruggen R, Kamerbeek N, Tool AT, Hicsonmez G, Gurgey A, Karow A, Verhoeven AJ, Seeger K, Sanal O, Niemeyer C, Roos D.  
Blood. 2007 Apr 15;109(8):3529-37. Epub 2006 Dec 21.  
PMID: 17185466 [PubMed - indexed for MEDLINE] **Free Article**
- 22. [Preimplantation genetic diagnosis of leukocyte adhesion deficiency type I.](#)  
Lorusso F, Kong D, Jalil AK, Sylvestre C, Tan SL, Ao A.  
Fertil Steril. 2006 Feb;85(2):494.e15-8.  
PMID: 16595236 [PubMed - indexed for MEDLINE]
- 23. [\[Leukocyte-adhesion deficiency: a rare disorder of inflammation\].](#)  
van Vliet DN, Brandsma AE, Hartwig NG.  
Ned Tijdschr Geneeskd. 2004 Dec 11;148(50):2496-500. Dutch.  
PMID: 15638198 [PubMed - indexed for MEDLINE]
- 24. [Human memory B cells transferred by allogenic bone marrow transplantation contribute significantly to the antibody repertoire of the recipient.](#)  
Lausen BF, Hougs L, Schejbel L, Heilmann C, Barington T.  
J Immunol. 2004 Mar 1;172(5):3305-18.  
PMID: 14978139 [PubMed - indexed for MEDLINE] **Free Article**
- 25. [Unique CD18 mutations involving a deletion in the extracellular stalk region and a major truncation of the cytoplasmic domain in a patient with leukocyte adhesion deficiency type 1.](#)  
Hixson P, Smith CW, Shurin SB, Tosi MF.  
Blood. 2004 Feb 1;103(3):1105-13. Epub 2003 Sep 25.  
PMID: 14512306 [PubMed - indexed for MEDLINE] **Free Article**

- 26. [Unrelated bone marrow transplantation for leukocyte adhesion deficiency.](#)  
Farinha NJ, Duval M, Wagner E, Champagne J, Lapointe N, Barrette S, Tapiero B, Busque L, Champagne MA.  
Bone Marrow Transplant. 2002 Dec;30(12):979-81.  
PMID: 12476295 [PubMed - indexed for MEDLINE] **Free Article**
- 27. [Insights into leukocyte adhesion deficiency type 2 from a novel mutation in the GDP-fucose transporter gene.](#)  
Hidalgo A, Ma S, Peired AJ, Weiss LA, Cunningham-Rundles C, Frenette PS.  
Blood. 2003 Mar 1;101(5):1705-12. Epub 2002 Oct 24.  
PMID: 12406889 [PubMed - indexed for MEDLINE] **Free Article**
- 28. [The association of leukocyte adhesion defect type I and persistent hyperinsulinemic hypoglycemia of infancy in a Saudi Arabian family.](#)  
Suliaman F, Jabbar MA.  
Pediatr Hematol Oncol. 2002 Sep;19(6):429-32.  
PMID: 12186366 [PubMed - indexed for MEDLINE]
- 29. [Nonopsonic phagocytosis of Pseudomonas aeruginosa: insights from an infant with leukocyte adhesion deficiency.](#)  
Pollard AJ, Heale JP, Tsang A, Massing B, Speert DP.  
Pediatr Infect Dis J. 2001 Apr;20(4):452-4.  
PMID: 11332677 [PubMed - indexed for MEDLINE]
- 30. [Discontinuation of fucose therapy in LADII causes rapid loss of selectin ligands and rise of leukocyte counts.](#)  
Lühn K, Marquardt T, Harms E, Vestweber D.  
Blood. 2001 Jan 1;97(1):330-2.  
PMID: 11133780 [PubMed - indexed for MEDLINE] **Free Article**
- 31. [Fucose supplementation in leukocyte adhesion deficiency type II.](#)  
Etzioni A, Tonetti M.  
Blood. 2000 Jun 1;95(11):3641-3. No abstract available.  
PMID: 10877554 [PubMed - indexed for MEDLINE] **Free Article**
- 32. [Pyoderma gangrenosum in a child with congenital partial deficiency of leukocyte adherence glycoproteins.](#)  
Bedlow AJ, Davies EG, Moss AL, Rebeck N, Finn A, Marsden RA.  
Br J Dermatol. 1998 Dec;139(6):1064-7.  
PMID: 9990374 [PubMed - indexed for MEDLINE]
- 33. [Leukocyte adhesion deficiency type II: long-term follow-up.](#)  
Etzioni A, Gershoni-Baruch R, Pollack S, Shehadeh N.  
J Allergy Clin Immunol. 1998 Aug;102(2):323-4. No abstract available.  
PMID: 9723680 [PubMed - indexed for MEDLINE]
- 34. [Defective intracellular activity of GDP-D-mannose-4,6-dehydratase in leukocyte adhesion deficiency type II syndrome.](#)  
Sturla L, Etzioni A, Bisso A, Zanardi D, De Flora G, Silengo L, De Flora A, Tonetti M.  
FEBS Lett. 1998 Jun 16;429(3):274-8.  
PMID: 9662431 [PubMed - indexed for MEDLINE]
- 35. [Retroviral-mediated gene transfer of the leukocyte integrin CD18 into peripheral blood CD34+ cells derived from a patient with leukocyte adhesion deficiency type 1.](#)  
Bauer TR, Schwartz BR, Liles WC, Ochs HD, Hickstein DD.  
Blood. 1998 Mar 1;91(5):1520-6.  
PMID: 9473215 [PubMed - indexed for MEDLINE] **Free Article**
- 36. [Leukocyte adhesion deficiency type 1 \(LAD-1\)/variant. A novel immunodeficiency syndrome characterized by dysfunctional beta2 integrins.](#)  
Kuijpers TW, Van Lier RA, Hamann D, de Boer M, Thung LY, Weening RS, Verhoeven AJ, Roos D.  
J Clin Invest. 1997 Oct 1;100(7):1725-33.  
PMID: 9312170 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 37. [Prenatal diagnosis of Rambam-Hasharon syndrome.](#)  
Frydman M, Vardimon D, Shalev E, Orlin JB.  
Prenat Diagn. 1996 Mar;16(3):266-9.  
PMID: 8710783 [PubMed - indexed for MEDLINE]
- 38. [Neutrophil adhesion in leukocyte adhesion deficiency syndrome type 2.](#)  
Phillips ML, Schwartz BR, Etzioni A, Bayer R, Ochs HD, Paulson JC, Harlan JM.  
J Clin Invest. 1995 Dec;96(6):2898-906.  
PMID: 8675661 [PubMed - indexed for MEDLINE] **Free PMC Article**

- [Complement receptor type 1 \(CR1\) deficiency on neutrophils in myelodysplastic syndrome.](#)
- 39. Ohsaka A, Saionji K, Watanabe N, Yokomichi H, Sugahara Y, Nagayama R, Igari J.  
Br J Haematol. 1994 Oct;88(2):409-12.  
PMID: 7803293 [PubMed - indexed for MEDLINE]
  
- [In vivo neutrophil and lymphocyte function studies in a patient with leukocyte adhesion deficiency type II.](#)
- 40. Price TH, Ochs HD, Gershoni-Baruch R, Harlan JM, Etzioni A.  
Blood. 1994 Sep 1;84(5):1635-9.  
PMID: 8068953 [PubMed - indexed for MEDLINE] **Free Article**
  
- [A point mutation associated with leukocyte adhesion deficiency type 1 of moderate severity.](#)
- 41. Back AL, Kerkering M, Baker D, Bauer TR, Embree LJ, Hickstein DD.  
Biochem Biophys Res Commun. 1993 Jun 30;193(3):912-8.  
PMID: 7686755 [PubMed - indexed for MEDLINE]
  
- [A novel syndrome of severe neutrophil dysfunction: unresponsiveness confined to chemotaxin-induced functions.](#)
- 42. Roos D, Kuijpers TW, Mascart-Lemone F, Koenderman L, de Boer M, van Zwieten R, Verhoeven AJ.  
Blood. 1993 May 15;81(10):2735-43.  
PMID: 8098232 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Defective neutrophil and lymphocyte function in leucocyte adhesion deficiency.](#)
- 43. Lau YL, Low LC, Jones BM, Lawton JW.  
Clin Exp Immunol. 1991 Aug;85(2):202-8.  
PMID: 1677833 [PubMed - indexed for MEDLINE] **Free PMC Article**

Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 45

- 1. [A novel 3' splice-site mutation and a novel gross deletion in leukocyte adhesion deficiency \(LAD\)-1.](#)  
Bernard Cher TH, Chan HS, Klein GF, Jabkowski J, Schadenböck-Kranzl G, Zach O, Roca X, Law SK.  
Biochem Biophys Res Commun. 2011 Jan 28;404(4):1099-104. Epub 2010 Dec 31.  
PMID: 21195692 [PubMed - indexed for MEDLINE]
- 2. [Characterization of 11 new cases of leukocyte adhesion deficiency type 1 with seven novel mutations in the ITGB2 gene.](#)  
Parvaneh N, Mamishi S, Rezaei A, Rezaei N, Tamizifar B, Parvaneh L, Sherkat R, Ghalehbaghi B, Kashef S, Chavoshzadeh Z, Isaeian A, Ashrafi F, Aghamohammadi A.  
J Clin Immunol. 2010 Sep;30(5):756-60. Epub 2010 Jun 12.  
PMID: 20549317 [PubMed - indexed for MEDLINE]
- 3. [A novel point mutation in CD18 causing leukocyte adhesion deficiency in a Chinese patient.](#)  
Li L, Jin YY, Cao RM, Chen TX.  
Chin Med J (Engl). 2010 May 20;123(10):1278-82.  
PMID: 20529581 [PubMed - indexed for MEDLINE] **Free Article**
- 4. [Osteomyelitis in leukocyte adhesion deficiency type 1 syndrome.](#)  
Jabbari Azad F, Ardalan M, Hoseinpoor Rafati A, Sotoudeh S, Pourpak Z.  
J Infect Dev Ctries. 2010 Mar 29;4(3):175-8.  
PMID: 20351460 [PubMed - indexed for MEDLINE] **Free Article**
- 5. [ITGB2 mutation combined with deleted ring 21 chromosome in a child with leukocyte adhesion deficiency.](#)  
Fiorini M, Piovani G, Schumacher RF, Magri C, Bertini V, Mazzolari E, Notarangelo L, Notarangelo LD, Barlati S.  
J Allergy Clin Immunol. 2009 Dec;124(6):1356-8. Epub . No abstract available.  
PMID: 19864007 [PubMed - indexed for MEDLINE]
- 6. [Periodontal manifestation of leukocyte adhesion deficiency type I.](#)  
Dababneh R, Al-Wahadneh AM, Hamadneh S, Khouri A, Bissada NF.  
J Periodontol. 2008 Apr;79(4):764-8.  
PMID: 18380573 [PubMed - indexed for MEDLINE]
- 7. [Rapid cell senescence and apoptosis in lymphocytes and granulocytes and absence of GM-CSF receptor in congenital dysgranulopoietic neutropenia.](#)  
Olcay L, Yetgin S, Okur H, Erdemli E.  
Leuk Res. 2008 Feb;32(2):235-42. Epub 2007 Aug 7.  
PMID: 17686517 [PubMed - indexed for MEDLINE]
- 8. [Neutrophil function and molecular analysis in severe leukocyte adhesion deficiency type I without separation delay of the umbilical cord.](#)  
Tsai YC, Lee WI, Huang JL, Hung IJ, Jaing TH, Yao TC, Chen MT, Kuo ML.  
Pediatr Allergy Immunol. 2008 Feb;19(1):25-32. Epub 2007 Jul 25.  
PMID: 17651379 [PubMed - indexed for MEDLINE]
- 9. [Somatic revertant mosaicism in a patient with leukocyte adhesion deficiency type 1.](#)  
Tone Y, Wada T, Shibata F, Toma T, Hashida Y, Kasahara Y, Koizumi S, Yachie A.  
Blood. 2007 Feb 1;109(3):1182-4.  
PMID: 17244687 [PubMed - indexed for MEDLINE] **Free Article**
- 10. [Genetic and immunological assessment of a bone marrow transplantation in a patient with a primary immune defect: leukocyte adhesion deficiency.](#)  
Jamal T, Barbouche MR, Ben Hariz M, Bejaoui M, Fathallah MD, Dellagi K.  
Arch Inst Pasteur Tunis. 1998 Jul-Oct;75(3-4):177-83.  
PMID: 14666743 [PubMed - indexed for MEDLINE]
- 11. [Unique CD18 mutations involving a deletion in the extracellular stalk region and a major truncation of the cytoplasmic domain in a patient with leukocyte adhesion deficiency type 1.](#)  
Hixson P, Smith CW, Shurin SB, Tosi MF.  
Blood. 2004 Feb 1;103(3):1105-13. Epub 2003 Sep 25.  
PMID: 14512306 [PubMed - indexed for MEDLINE] **Free Article**



- [Chemotaxis of non-compressed blood polymorphonuclear leukocytes from an adolescent with severe leukocyte adhesion deficiency.](#)
12. Malawista SE, de Boisfleury Chevance A, Brown EJ, Boxer LA, Law SK.  
Am J Hematol. 2003 Jun;73(2):115-20. Review.  
PMID: 12749013 [PubMed - indexed for MEDLINE]
- [A novel form of integrin dysfunction involving beta1, beta2, and beta3 integrins.](#)
13. McDowall A, Inwald D, Leitinger B, Jones A, Liesner R, Klein N, Hogg N.  
J Clin Invest. 2003 Jan;111(1):51-60.  
PMID: 12511588 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Genetic analysis of patients with leukocyte adhesion deficiency: genomic sequencing reveals otherwise undetectable mutations.](#)
14. Roos D, Meischl C, de Boer M, Simsek S, Weening RS, Sanal O, Tezcan I, Güngör T, Law SK.  
Exp Hematol. 2002 Mar;30(3):252-61.  
PMID: 11882363 [PubMed - indexed for MEDLINE]
- [Dysfunctional LAD-1 neutrophils and colitis.](#)
15. Uzel G, Kleiner DE, Kuhns DB, Holland SM.  
Gastroenterology. 2001 Oct;121(4):958-64.  
PMID: 11606509 [PubMed - indexed for MEDLINE]
- [Newly recognized cellular abnormalities in the gray platelet syndrome.](#)
16. Drouin A, Favier R, Massé JM, Debili N, Schmitt A, Elbim C, Guichard J, Adam M, Gougerot-Pocidallo MA, Cramer EM.  
Blood. 2001 Sep 1;98(5):1382-91.  
PMID: 11520786 [PubMed - indexed for MEDLINE] **Free Article**
- [Nonopsonic phagocytosis of Pseudomonas aeruginosa: insights from an infant with leukocyte adhesion deficiency.](#)
17. Pollard AJ, Heale JP, Tsang A, Massing B, Speert DP.  
Pediatr Infect Dis J. 2001 Apr;20(4):452-4.  
PMID: 11332677 [PubMed - indexed for MEDLINE]
- [A novel CD18 genomic deletion in a patient with severe leukocyte adhesion deficiency: a possible CD2/lymphocyte function-associated antigen-1 functional association in humans.](#)
18. Allende LM, Hernández M, Corell A, García-Pérez MA, Varela P, Moreno A, Caragol I, García-Martín F, Guillén-Perales J, Olivé T, Español T, Arnaiz-Villena A.  
Immunology. 2000 Mar;99(3):440-50.  
PMID: 10712675 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Leukocyte adhesion deficiency in a Norwegian boy.](#)
19. Naess A, Sjursen H, Leegaard J.  
Scand J Infect Dis. 1999;31(6):600-2.  
PMID: 10680995 [PubMed - indexed for MEDLINE]
- [Pyoderma gangrenosum in a child with congenital partial deficiency of leukocyte adherence glycoproteins.](#)
20. Bedlow AJ, Davies EG, Moss AL, Rebuck N, Finn A, Marsden RA.  
Br J Dermatol. 1998 Dec;139(6):1064-7.  
PMID: 9990374 [PubMed - indexed for MEDLINE]
- [A novel leukocyte adhesion deficiency caused by expressed but nonfunctional beta2 integrins Mac-1 and LFA-1.](#)
21. Hogg N, Stewart MP, Scarth SL, Newton R, Shaw JM, Law SK, Klein N.  
J Clin Invest. 1999 Jan;103(1):97-106.  
PMID: 9884339 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Retroviral-mediated gene transfer of the leukocyte integrin CD18 into peripheral blood CD34+ cells derived from a patient with leukocyte adhesion deficiency type 1.](#)
22. Bauer TR, Schwartz BR, Liles WC, Ochs HD, Hickstein DD.  
Blood. 1998 Mar 1;91(5):1520-6.  
PMID: 9473215 [PubMed - indexed for MEDLINE] **Free Article**
- [Leukocyte adhesion deficiency type 1 \(LAD-1\)/variant. A novel immunodeficiency syndrome characterized by dysfunctional beta2 integrins.](#)
23. Kuijpers TW, Van Lier RA, Hamann D, de Boer M, Thung LY, Weening RS, Verhoeven AJ, Roos D.  
J Clin Invest. 1997 Oct 1;100(7):1725-33.  
PMID: 9312170 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Leukocyte adhesion deficiency presenting as a chronic ileocolitis.](#)
24. D'Agata ID, Paradis K, Chad Z, Bonny Y, Seidman E.  
Gut. 1996 Oct;39(4):605-8.  
PMID: 8944573 [PubMed - indexed for MEDLINE] **Free PMC Article**

- [An infant with severe leucocyte adhesion deficiency.](#)

25. Güneşer S, Altıntaş DU, Aksungur P, Hergüner O, Sanal O.  
Acta Paediatr. 1996 May;85(5):622-4.  
PMID: 8827112 [PubMed - indexed for MEDLINE]
- [Leukocyte adhesion deficiency: report of a case and review of the literature.](#)

26. Lipnick RN, Iliopoulos A, Salata K, Hershey J, Melnick D, Tsokos GC.  
Clin Exp Rheumatol. 1996 Jan-Feb;14(1):95-8. Review.  
PMID: 8697667 [PubMed - indexed for MEDLINE]
- [Neutrophil adhesion in leukocyte adhesion deficiency syndrome type 2.](#)

27. Phillips ML, Schwartz BR, Etzioni A, Bayer R, Ochs HD, Paulson JC, Harlan JM.  
J Clin Invest. 1995 Dec;96(6):2898-906.  
PMID: 8675661 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Leukocyte adhesion deficiency mimicking Hirschsprung disease.](#)

28. Rivera-Matos IR, Rakita RM, Mariscalco MM, Elder FF, Dreyer SA, Cleary TG.  
J Pediatr. 1995 Nov;127(5):755-7. Review.  
PMID: 7472832 [PubMed - indexed for MEDLINE]
- [VLA-4 integrin can mediate CD11/CD18-independent transendothelial migration of human monocytes.](#)

29. Chuluyan HE, Issekutz AC.  
J Clin Invest. 1993 Dec;92(6):2768-77.  
PMID: 7902847 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Characterization of two new CD18 alleles causing severe leukocyte adhesion deficiency.](#)

30. López Rodríguez C, Nueda A, GrosPierre B, Sánchez-Madrid F, Fischer A, Springer TA, Corbí AL.  
Eur J Immunol. 1993 Nov;23(11):2792-8.  
PMID: 7901025 [PubMed - indexed for MEDLINE]
- [A point mutation associated with leukocyte adhesion deficiency type 1 of moderate severity.](#)

31. Back AL, Kerkering M, Baker D, Bauer TR, Embree LJ, Hickstein DD.  
Biochem Biophys Res Commun. 1993 Jun 30;193(3):912-8.  
PMID: 7686755 [PubMed - indexed for MEDLINE]
- [A novel syndrome of severe neutrophil dysfunction: unresponsiveness confined to chemotaxin-induced functions.](#)

32. Roos D, Kuijpers TW, Mascart-Lemone F, Koenderman L, de Boer M, van Zwieten R, Verhoeven AJ.  
Blood. 1993 May 15;81(10):2735-43.  
PMID: 8098232 [PubMed - indexed for MEDLINE] **Free Article**
- [Defective mononuclear cell antibody-dependent cellular cytotoxicity \(ADCC\) in patients with leukocyte adhesion deficiency emphasizing on different CD11/CD18 requirement of Fc gamma RI versus Fc gamma RII in ADCC.](#)

33. Majima T, Ohashi Y, Nagatomi R, Iizuka A, Konno T.  
Cell Immunol. 1993 May;148(2):385-96.  
PMID: 8098672 [PubMed - indexed for MEDLINE]
- [Familial genetic defect in a case of leukocyte adhesion deficiency.](#)

34. Ohashi Y, Yambe T, Tsuchiya S, Kikuchi H, Konno T.  
Hum Mutat. 1993;2(6):458-67.  
PMID: 7509236 [PubMed - indexed for MEDLINE]
- [Brief report: recurrent severe infections caused by a novel leukocyte adhesion deficiency.](#)

35. Etzioni A, Frydman M, Pollack S, Avidor I, Phillips ML, Paulson JC, Gershoni-Baruch R.  
N Engl J Med. 1992 Dec 17;327(25):1789-92. No abstract available.  
PMID: 1279426 [PubMed - indexed for MEDLINE] **Free Article**
- [An atypical case of immunodeficiency.](#)

36. Craig TJ, Engler R, Yang E, Carpenter G.  
Ann Allergy. 1992 Jul;69(1):22-5. No abstract available.  
PMID: 1352663 [PubMed - indexed for MEDLINE]
- [Leukocyte adhesion deficiency presenting with recurrent otitis media and persistent leukocytosis.](#)

37. Voss LM, Rhodes KH.  
Clin Pediatr (Phila). 1992 Jul;31(7):442-5. No abstract available.  
PMID: 1352192 [PubMed - indexed for MEDLINE]
- [Identification of two molecular defects in a child with leukocyte adherence deficiency.](#)

38. Back AL, Kwok WW, Hickstein DD.  
J Biol Chem. 1992 Mar 15;267(8):5482-7.  
PMID: 1347532 [PubMed - indexed for MEDLINE]

- [Leukocyte adhesion deficiency: clinical and postmortem observations.](#)
- 39. Hawkins HK, Heffelfinger SC, Anderson DC.  
Pediatr Pathol. 1992 Jan-Feb;12(1):119-30.  
PMID: 1348581 [PubMed - indexed for MEDLINE]
  
- [Defective neutrophil and lymphocyte function in leukocyte adhesion deficiency.](#)
- 40. Lau YL, Low LC, Jones BM, Lawton JW.  
Clin Exp Immunol. 1991 Aug;85(2):202-8.  
PMID: 1677833 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [A 19-year-old man with leukocyte adhesion deficiency. In vitro and in vivo studies of leukocyte function.](#)
- 41. Davies KA, Toothill VJ, Savill J, Hotchin N, Peters AM, Pearson JD, Haslett C, Burke M, Law SK, Mercer NF, et al.  
Clin Exp Immunol. 1991 May;84(2):223-31.  
PMID: 1673876 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Unusual expression of IgG Fc receptors on peripheral granulocytes from patients with leukocyte adhesion deficiency \(CD11/CD18 deficiency\).](#)
- 42. Majima T, Minegishi N, Nagatomi R, Ohashi Y, Tsuchiya S, Kobayashi K, Konno T.  
J Immunol. 1990 Sep 15;145(6):1694-9.  
PMID: 2167908 [PubMed - indexed for MEDLINE]
  
- [Lymphocyte homing receptors and adhesion molecules in intravascular malignant lymphomatosis.](#)
- 43. Jalkanen S, Aho R, Kallajoki M, Ekfors T, Nortamo P, Gahmberg C, Duijvestijn A, Kalimo H.  
Int J Cancer. 1989 Nov 15;44(5):777-82.  
PMID: 2573578 [PubMed - indexed for MEDLINE]
  
- [Effects of interferon-gamma \(IFN-gamma\) and tumor necrosis factor-alpha \(TNF-alpha\) on the expression of LFA-1 in the moderate phenotype of leukocyte adhesion deficiency \(LAD\).](#)
- 44. Dimanche-Boitrel MT, Le Deist F, Quillet A, Fischer A, Griscelli C, Lisowska-Grosperre B.  
J Clin Immunol. 1989 May;9(3):200-7.  
PMID: 2475518 [PubMed - indexed for MEDLINE]
  
- [Response of LFA-1-deficient B cells to interleukin 4 \(BSF-1\) and low molecular weight B cell growth factor \(BCGFlow\).](#)
- 45. Shields JG, Smith SH, Strobel S, Levinsky RJ, DeFrance T, De Vries J, Banchereau J, Callard RE.  
Eur J Immunol. 1988 Feb;18(2):255-9.  
PMID: 2832180 [PubMed - indexed for MEDLINE]

# PubMed

Search: Leukocyte adhesion deficiency type 2 and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (23)

[Manage Filters](#)

Display Settings: Summary, 50 per page, Sorted by Recently Added

## Results: 23

1. [Successful treatment of Fusarium solani ecthyma gangrenosum in a patient affected by leukocyte adhesion deficiency type 1 with granulocytes transfusions.](#)  
Mellouli F, Ksouri H, Barbouche R, Maamer M, Hamed LB, Hmida S, Hassen AB, Béjaoui M.  
BMC Dermatol. 2010 Oct 7;10:10.  
PMID: 20929531 [PubMed - indexed for MEDLINE] **Free PMC Article**
2. [Delayed wound healing in leukocyte adhesion deficiency type 1.](#)  
Wada T, Tone Y, Shibata F, Toma T, Yachie A.  
J Pediatr. 2011 Feb;158(2):342. Epub 2010 Sep 16. No abstract available.  
PMID: 20843524 [PubMed - indexed for MEDLINE]
3. [Pyoderma gangrenosum after bone marrow transplantation for leukocyte adhesion deficiency type 1.](#)  
Elenberg Y, Shani-Adir A, Hecht Y, Ephros M, Bibi H.  
Isr Med Assoc J. 2010 Feb;12(2):119-20. No abstract available.  
PMID: 20550039 [PubMed - indexed for MEDLINE] **Free Article**
4. [Osteomyelitis in leukocyte adhesion deficiency type 1 syndrome.](#)  
Jabbari Azad F, Ardalan M, Hoseinpoor Rafati A, Sotoudeh S, Pourpak Z.  
J Infect Dev Ctries. 2010 Mar 29;4(3):175-8.  
PMID: 20351460 [PubMed - indexed for MEDLINE] **Free Article**
5. [Leukocyte adhesion deficiency type II: long-term follow-up and review of the literature.](#)  
Gazit Y, Mory A, Etzioni A, Frydman M, Scheuerman O, Gershoni-Baruch R, Garty BZ.  
J Clin Immunol. 2010 Mar;30(2):308-13. Epub 2010 Jan 23. Review.  
PMID: 20099014 [PubMed - indexed for MEDLINE]
6. [Leukocyte adhesion deficiency type 1 presenting as leukemoid reaction.](#)  
Alizadeh P, Rahbarimanesh AA, Bahram MG, Salmasian H.  
Indian J Pediatr. 2007 Dec;74(12):1121-3.  
PMID: 18174651 [PubMed - indexed for MEDLINE]
7. [Leukocyte adhesion deficiency in a female patient without delayed umbilical cord separation.](#)  
Webber EC, Church J, Rand TH, Shah AJ.  
J Paediatr Child Health. 2007 May;43(5):406-8.  
PMID: 17489834 [PubMed - indexed for MEDLINE]
8. [Somatic revertant mosaicism in a patient with leukocyte adhesion deficiency type 1.](#)  
Tone Y, Wada T, Shibata F, Toma T, Hashida Y, Kasahara Y, Koizumi S, Yachie A.  
Blood. 2007 Feb 1;109(3):1182-4.  
PMID: 17244687 [PubMed - indexed for MEDLINE] **Free Article**
9. [Natural history and early diagnosis of LAD-1/variant syndrome.](#)  
Kuijpers TW, van Bruggen R, Kamerbeek N, Tool AT, Hicsonmez G, Gurgey A, Karow A, Verhoeven AJ, Seeger K, Sanal O, Niemeyer C, Roos D.  
Blood. 2007 Apr 15;109(8):3529-37. Epub 2006 Dec 21.  
PMID: 17185466 [PubMed - indexed for MEDLINE] **Free Article**
10. [Preimplantation genetic diagnosis of leukocyte adhesion deficiency type I.](#)  
Lorusso F, Kong D, Jalil AK, Sylvestre C, Tan SL, Ao A.  
Fertil Steril. 2006 Feb;85(2):494.e15-8.  
PMID: 16595236 [PubMed - indexed for MEDLINE]
11. [Unique CD18 mutations involving a deletion in the extracellular stalk region and a major truncation of the cytoplasmic domain in a patient with leukocyte adhesion deficiency type 1.](#)  
Hixson P, Smith CW, Shurin SB, Tosi MF.  
Blood. 2004 Feb 1;103(3):1105-13. Epub 2003 Sep 25.  
PMID: 14512306 [PubMed - indexed for MEDLINE] **Free Article**
12. [Insights into leukocyte adhesion deficiency type 2 from a novel mutation in the GDP-fucose transporter gene.](#)  
Hidalgo A, Ma S, Peired AJ, Weiss LA, Cunningham-Rundles C, Frenette PS.  
Blood. 2003 Mar 1;101(5):1705-12. Epub 2002 Oct 24.  
PMID: 12406889 [PubMed - indexed for MEDLINE] **Free Article**

- 13. [The association of leukocyte adhesion defect type I and persistent hyperinsulinemic hypoglycemia of infancy in a Saudi Arabian family.](#)  
Suliaman F, Jabbar MA.  
Pediatr Hematol Oncol. 2002 Sep;19(6):429-32.  
PMID: 12186366 [PubMed - indexed for MEDLINE]
- 14. [Nonopsonic phagocytosis of Pseudomonas aeruginosa: insights from an infant with leukocyte adhesion deficiency.](#)  
Pollard AJ, Heale JP, Tsang A, Massing B, Speert DP.  
Pediatr Infect Dis J. 2001 Apr;20(4):452-4.  
PMID: 11332677 [PubMed - indexed for MEDLINE]
- 15. [Pyoderma gangrenosum in a child with congenital partial deficiency of leukocyte adherence glycoproteins.](#)  
Bedlow AJ, Davies EG, Moss AL, Rebuck N, Finn A, Marsden RA.  
Br J Dermatol. 1998 Dec;139(6):1064-7.  
PMID: 9990374 [PubMed - indexed for MEDLINE]
- 16. [Leukocyte adhesion deficiency type II: long-term follow-up.](#)  
Etzioni A, Gershoni-Baruch R, Pollack S, Shehadeh N.  
J Allergy Clin Immunol. 1998 Aug;102(2):323-4. No abstract available.  
PMID: 9723680 [PubMed - indexed for MEDLINE]
- 17. [Defective intracellular activity of GDP-D-mannose-4,6-dehydratase in leukocyte adhesion deficiency type II syndrome.](#)  
Sturla L, Etzioni A, Bisso A, Zanardi D, De Flora G, Silengo L, De Flora A, Tonetti M.  
FEBS Lett. 1998 Jun 16;429(3):274-8.  
PMID: 9662431 [PubMed - indexed for MEDLINE]
- 18. [Prenatal diagnosis of Rambam-Hasharon syndrome.](#)  
Frydman M, Vardimon D, Shalev E, Orlin JB.  
Prenat Diagn. 1996 Mar;16(3):266-9.  
PMID: 8710783 [PubMed - indexed for MEDLINE]
- 19. [Neutrophil adhesion in leukocyte adhesion deficiency syndrome type 2.](#)  
Phillips ML, Schwartz BR, Etzioni A, Bayer R, Ochs HD, Paulson JC, Harlan JM.  
J Clin Invest. 1995 Dec;96(6):2898-906.  
PMID: 8675661 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 20. [Complement receptor type 1 \(CR1\) deficiency on neutrophils in myelodysplastic syndrome.](#)  
Ohsaka A, Saionji K, Watanabe N, Yokomichi H, Sugahara Y, Nagayama R, Igari J.  
Br J Haematol. 1994 Oct;88(2):409-12.  
PMID: 7803293 [PubMed - indexed for MEDLINE]
- 21. [In vivo neutrophil and lymphocyte function studies in a patient with leukocyte adhesion deficiency type II.](#)  
Price TH, Ochs HD, Gershoni-Baruch R, Harlan JM, Etzioni A.  
Blood. 1994 Sep 1;84(5):1635-9.  
PMID: 8068953 [PubMed - indexed for MEDLINE] **Free Article**
- 22. [A novel syndrome of severe neutrophil dysfunction: unresponsiveness confined to chemotaxin-induced functions.](#)  
Roos D, Kuijpers TW, Mascart-Lemone F, Koenderman L, de Boer M, van Zwieten R, Verhoeven AJ.  
Blood. 1993 May 15;81(10):2735-43.  
PMID: 8098232 [PubMed - indexed for MEDLINE] **Free Article**
- 23. [Defective neutrophil and lymphocyte function in leukocyte adhesion deficiency.](#)  
Lau YL, Low LC, Jones BM, Lawton JW.  
Clin Exp Immunol. 1991 Aug;85(2):202-8.  
PMID: 1677833 [PubMed - indexed for MEDLINE] **Free PMC Article**

# PubMed

Search: Leukocyte adhesion deficiency type II and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (11)

Display Settings: Summary, 20 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 11

- [Leukocyte adhesion deficiency type II: long-term follow-up and review of the literature.](#)
  1. Gazit Y, Mory A, Etzioni A, Frydman M, Scheuerman O, Gershoni-Baruch R, Garty BZ. J Clin Immunol. 2010 Mar;30(2):308-13. Epub 2010 Jan 23. Review. PMID: 20099014 [PubMed - indexed for MEDLINE]
- [Leukocyte adhesion deficiency type 1 presenting as leukemoid reaction.](#)
  2. Alizadeh P, Rahbarimanesh AA, Bahram MG, Salmasian H. Indian J Pediatr. 2007 Dec;74(12):1121-3. PMID: 18174651 [PubMed - indexed for MEDLINE]
- [\[Leukocyte-adhesion deficiency: a rare disorder of inflammation\].](#)
  3. van Vliet DN, Brandsma AE, Hartwig NG. Ned Tijdschr Geneeskd. 2004 Dec 11;148(50):2496-500. Dutch. PMID: 15638198 [PubMed - indexed for MEDLINE]
- [Human memory B cells transferred by allogenic bone marrow transplantation contribute significantly to the antibody repertoire of the recipient.](#)
  4. Lausen BF, Hougs L, Schejbel L, Heilmann C, Barington T. J Immunol. 2004 Mar 1;172(5):3305-18. PMID: 14978139 [PubMed - indexed for MEDLINE] **Free Article**
- [Unrelated bone marrow transplantation for leukocyte adhesion deficiency.](#)
  5. Farinha NJ, Duval M, Wagner E, Champagne J, Lapointe N, Barrette S, Tapiero B, Busque L, Champagne MA. Bone Marrow Transplant. 2002 Dec;30(12):979-81. PMID: 12476295 [PubMed - indexed for MEDLINE] **Free Article**
- [Discontinuation of fucose therapy in LADII causes rapid loss of selectin ligands and rise of leukocyte counts.](#)
  6. Lühn K, Marquardt T, Harms E, Vestweber D. Blood. 2001 Jan 1;97(1):330-2. PMID: 11133780 [PubMed - indexed for MEDLINE] **Free Article**
- [Fucose supplementation in leukocyte adhesion deficiency type II.](#)
  7. Etzioni A, Tonetti M. Blood. 2000 Jun 1;95(11):3641-3. No abstract available. PMID: 10877554 [PubMed - indexed for MEDLINE] **Free Article**
- [Leukocyte adhesion deficiency type II: long-term follow-up.](#)
  8. Etzioni A, Gershoni-Baruch R, Pollack S, Shehadeh N. J Allergy Clin Immunol. 1998 Aug;102(2):323-4. No abstract available. PMID: 9723680 [PubMed - indexed for MEDLINE]
- [Defective intracellular activity of GDP-D-mannose-4,6-dehydratase in leukocyte adhesion deficiency type II syndrome.](#)
  9. Sturla L, Etzioni A, Bisso A, Zanardi D, De Flora G, Silengo L, De Flora A, Tonetti M. FEBS Lett. 1998 Jun 16;429(3):274-8. PMID: 9662431 [PubMed - indexed for MEDLINE]
- [Neutrophil adhesion in leukocyte adhesion deficiency syndrome type 2.](#)
  10. Phillips ML, Schwartz BR, Etzioni A, Bayer R, Ochs HD, Paulson JC, Harlan JM. J Clin Invest. 1995 Dec;96(6):2898-906. PMID: 8675661 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [In vivo neutrophil and lymphocyte function studies in a patient with leukocyte adhesion deficiency type II.](#)
  11. Price TH, Ochs HD, Gershoni-Baruch R, Harlan JM, Etzioni A. Blood. 1994 Sep 1;84(5):1635-9. PMID: 8068953 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: GDP-Fucose transporter and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (3)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

## Results: 3

- [Leukocyte adhesion deficiency type II: long-term follow-up and review of the literature.](#)
- 1. Gazit Y, Mory A, Etzioni A, Frydman M, Scheuerman O, Gershoni-Baruch R, Garty BZ.  
J Clin Immunol. 2010 Mar;30(2):308-13. Epub 2010 Jan 23. Review.  
PMID: 20099014 [PubMed - indexed for MEDLINE]
- [Leukocyte adhesion deficiency II patients with a dual defect of the GDP-fucose transporter.](#)
- 2. Helmus Y, Denecke J, Yakubenia S, Robinson P, Lühn K, Watson DL, McGrogan PJ, Vestweber D, Marquardt T, Wild MK.  
Blood. 2006 May 15;107(10):3959-66. Epub 2006 Feb 2.  
PMID: 16455955 [PubMed - indexed for MEDLINE] **Free Article**
- [Insights into leukocyte adhesion deficiency type 2 from a novel mutation in the GDP-fucose transporter gene.](#)
- 3. Hidalgo A, Ma S, Peired AJ, Weiss LA, Cunningham-Rundles C, Frenette PS.  
Blood. 2003 Mar 1;101(5):1705-12. Epub 2002 Oct 24.  
PMID: 12406889 [PubMed - indexed for MEDLINE] **Free Article**

**PubMed**U.S. National Library of Medicine  
National Institutes of Health**Search:** leukocyte adhesion deficiency type II or leukocyte adhesion deficiency type 2 or GDP-Fucose transporter and not mice**Filter your results:** All (97)

Display Settings: Summary, 200 per page, Sorted by Recently Added

[Manage Filters](#)**Limits Activated:** Humans [Change](#) | [Remove](#)**Results: 97**

- [Successful treatment of \*Fusarium solani\* ecthyma gangrenosum in a patient affected by leukocyte adhesion deficiency type 1 with granulocytes transfusions.](#)
  1. Mellouli F, Ksouri H, Barbouche R, Maamer M, Hamed LB, Hmida S, Hassen AB, Béjaoui M. BMC Dermatol. 2010 Oct 7;10:10. PMID: 20929531 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Delayed wound healing in leukocyte adhesion deficiency type 1.](#)
  2. Wada T, Tone Y, Shibata F, Toma T, Yachie A. J Pediatr. 2011 Feb;158(2):342. Epub 2010 Sep 16. No abstract available. PMID: 20843524 [PubMed - indexed for MEDLINE]
- [A defucosylated anti-CD317 antibody exhibited enhanced antibody-dependent cellular cytotoxicity against primary myeloma cells in the presence of effectors from patients.](#)
  3. Ishiguro T, Kawai S, Habu K, Sugimoto M, Shiraiwa H, Iijima S, Ozaki S, Matsumoto T, Yamada-Okabe H. Cancer Sci. 2010 Oct;101(10):2227-33. doi: 10.1111/j.1349-7006.2010.01663.x. Epub 2010 Aug 5. PMID: 20701608 [PubMed - indexed for MEDLINE]
- [Pyoderma gangrenosum after bone marrow transplantation for leukocyte adhesion deficiency type 1.](#)
  4. Elenberg Y, Shani-Adir A, Hecht Y, Ephros M, Bibi H. Isr Med Assoc J. 2010 Feb;12(2):119-20. No abstract available. PMID: 20550039 [PubMed - indexed for MEDLINE] **Free Article**
- [Inhibition of Golgi apparatus glycosylation causes endoplasmic reticulum stress and decreased protein synthesis.](#)
  5. Xu YX, Liu L, Caffaro CE, Hirschberg CB. J Biol Chem. 2010 Aug 6;285(32):24600-8. Epub 2010 Jun 7. PMID: 20529871 [PubMed - indexed for MEDLINE]
- [Two mutations in the \*KINDLIN3\* gene of a new leukocyte adhesion deficiency III patient reveal distinct effects on leukocyte function in vitro.](#)
  6. McDowall A, Svensson L, Stanley P, Patzak I, Chakravarty P, Howarth K, Sabnis H, Briones M, Hogg N. Blood. 2010 Jun 10;115(23):4834-42. Epub 2010 Mar 31. PMID: 20357244 [PubMed - indexed for MEDLINE]
- [Osteomyelitis in leukocyte adhesion deficiency type 1 syndrome.](#)
  7. Jabbari Azad F, Ardalan M, Hoseinpoor Rafati A, Sotoudeh S, Pourpak Z. J Infect Dev Ctries. 2010 Mar 29;4(3):175-8. PMID: 20351460 [PubMed - indexed for MEDLINE] **Free Article**
- [Ibutilast inhibits cerebral aneurysms by down-regulating inflammation-related molecules in the vascular wall of rats.](#)
  8. Yagi K, Tada Y, Kitazato KT, Tamura T, Satomi J, Nagahiro S. Neurosurgery. 2010 Mar;66(3):551-9; discussion 559. PMID: 20124930 [PubMed - indexed for MEDLINE]
- [Leukocyte adhesion deficiency type II: long-term follow-up and review of the literature.](#)
  9. Gazit Y, Mory A, Etzioni A, Frydman M, Scheuerman O, Gershoni-Baruch R, Garty BZ. J Clin Immunol. 2010 Mar;30(2):308-13. Epub 2010 Jan 23. Review. PMID: 20099014 [PubMed - indexed for MEDLINE]
- [Synthesis of heparan sulfate with cyclophilin B-binding properties is determined by cell type-specific expression of sulfotransferases.](#)
  10. Deligny A, Denys A, Marcant A, Melchior A, Mazurier J, van Kuppevelt TH, Allain F. J Biol Chem. 2010 Jan 15;285(3):1701-15. Epub 2009 Nov 23. PMID: 19940140 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Menopause and ovariectomy cause a low grade of systemic inflammation that may be prevented by chronic treatment with low doses of estrogen or losartan.](#)
  11. Abu-Taha M, Rius C, Hermenegildo C, Noguera I, Cerda-Nicolas JM, Issekutz AC, Jose PJ, Cortijo J, Morcillo EJ, Sanz MJ. J Immunol. 2009 Jul 15;183(2):1393-402. Epub 2009 Jun 24. PMID: 19553526 [PubMed - indexed for MEDLINE] **Free Article**
- [LAD-1/variant syndrome is caused by mutations in \*FERMT3\*.](#)
  - Kuijpers TW, van de Vijver E, Weterman MA, de Boer M, Tool AT, van den Berg TK, Moser M, Jakobs ME, Seeger K, Sanal O, Unal S,



12. Cetin M, Roos D, Verhoeven AJ, Baas F.  
Blood. 2009 May 7;113(19):4740-6. Epub 2008 Dec 8.  
PMID: 19064721 [PubMed - indexed for MEDLINE] **Free Article**
13. [Biological function of fucosylation in cancer biology.](#)  
Miyoshi E, Moriwaki K, Nakagawa T.  
J Biochem. 2008 Jun;143(6):725-9. Epub 2008 Jan 24. Review.  
PMID: 18218651 [PubMed - indexed for MEDLINE]
14. [Leukocyte adhesion deficiency type 1 presenting as leukemoid reaction.](#)  
Alizadeh P, Rahbarimanesh AA, Bahram MG, Salmasian H.  
Indian J Pediatr. 2007 Dec;74(12):1121-3.  
PMID: 18174651 [PubMed - indexed for MEDLINE]
15. [Impaired dendritic cell differentiation and maturation in the absence of C3.](#)  
Reis ES, Barbuto JA, Köhl J, Isaac L.  
Mol Immunol. 2008 Apr;45(7):1952-62. Epub 2007 Dec 3.  
PMID: 18061265 [PubMed - indexed for MEDLINE]
16. [A high expression of GDP-fucose transporter in hepatocellular carcinoma is a key factor for increases in fucosylation.](#)  
Moriwaki K, Noda K, Nakagawa T, Asahi M, Yoshihara H, Taniguchi N, Hayashi N, Miyoshi E.  
Glycobiology. 2007 Dec;17(12):1311-20. Epub 2007 Sep 20.  
PMID: 17884843 [PubMed - indexed for MEDLINE] **Free Article**
17. [Factors affecting guanine nucleotide binding to rat AMPA receptors.](#)  
Montgomery K, Suzuki E, Kessler M, Arai AC.  
Brain Res. 2007 Oct 26;1177:1-8. Epub 2007 Aug 16.  
PMID: 17884024 [PubMed - indexed for MEDLINE] **Free PMC Article**
18. [Leukocyte adhesion deficiency in a female patient without delayed umbilical cord separation.](#)  
Webber EC, Church J, Rand TH, Shah AJ.  
J Paediatr Child Health. 2007 May;43(5):406-8.  
PMID: 17489834 [PubMed - indexed for MEDLINE]
19. [ICAM-3 influences human immunodeficiency virus type 1 replication in CD4\(+\) T cells independent of DC-SIGN-mediated transmission.](#)  
Biggins JE, Biesinger T, Yu Kimata MT, Arora R, Kimata JT.  
Virology. 2007 Aug 1;364(2):383-94. Epub 2007 Apr 16.  
PMID: 17434553 [PubMed - indexed for MEDLINE] **Free PMC Article**
20. [Quantification of dendritic cell subsets in human renal tissue under normal and pathological conditions.](#)  
Woltman AM, de Fijter JW, Zuidwijk K, Vlug AG, Bajema IM, van der Kooij SW, van Ham V, van Kooten C.  
Kidney Int. 2007 May;71(10):1001-8. Epub 2007 Mar 14.  
PMID: 17361115 [PubMed - indexed for MEDLINE]
21. [Somatic revertant mosaicism in a patient with leukocyte adhesion deficiency type 1.](#)  
Tone Y, Wada T, Shibata F, Toma T, Hashida Y, Kasahara Y, Koizumi S, Yachie A.  
Blood. 2007 Feb 1;109(3):1182-4.  
PMID: 17244687 [PubMed - indexed for MEDLINE] **Free Article**
22. [Natural history and early diagnosis of LAD-1/variant syndrome.](#)  
Kuijpers TW, van Bruggen R, Kamerbeek N, Tool AT, Hicsonmez G, Gurgey A, Karow A, Verhoeven AJ, Seeger K, Sanal O, Niemeyer C, Roos D.  
Blood. 2007 Apr 15;109(8):3529-37. Epub 2006 Dec 21.  
PMID: 17185466 [PubMed - indexed for MEDLINE] **Free Article**
23. [Nucleotide-sugar transporters: structure, function and roles in vivo.](#)  
Handford M, Rodriguez-Furlán C, Orellana A.  
Braz J Med Biol Res. 2006 Sep;39(9):1149-58. Review.  
PMID: 16981043 [PubMed - indexed for MEDLINE] **Free Article**
24. [Lymphocyte chemotaxis is regulated by histone deacetylase 6, independently of its deacetylase activity.](#)  
Cabrero JR, Serrador JM, Barreiro O, Mittelbrunn M, Naranjo-Suárez S, Martín-Cófreces N, Vicente-Manzanares M, Mazitschek R, Bradner JE, Avila J, Valenzuela-Fernández A, Sánchez-Madrid F.  
Mol Biol Cell. 2006 Aug;17(8):3435-45. Epub 2006 May 31.  
PMID: 16738306 [PubMed - indexed for MEDLINE] **Free PMC Article**
25. [\[Primary immune deficiencies in neutrophil functioning\].](#)  
Gougerot-Pocidaló MA, Elbim C, Dang PM, El Benna J.  
Presse Med. 2006 May;35(5 Pt 2):871-8. Review. French.  
PMID: 16710160 [PubMed - indexed for MEDLINE]

- [Preimplantation genetic diagnosis of leukocyte adhesion deficiency type I.](#)  
 26. Lorusso F, Kong D, Jalil AK, Sylvestre C, Tan SL, Ao A.  
 Fertil Steril. 2006 Feb;85(2):494.e15-8.  
 PMID: 16595236 [PubMed - indexed for MEDLINE]
- [Leukocyte adhesion deficiency II patients with a dual defect of the GDP-fucose transporter.](#)  
 27. Helmus Y, Denecke J, Yakubenia S, Robinson P, Lühn K, Watson DL, McGrogan PJ, Vestweber D, Marquardt T, Wild MK.  
 Blood. 2006 May 15;107(10):3959-66. Epub 2006 Feb 2.  
 PMID: 16455955 [PubMed - indexed for MEDLINE] **Free Article**
- [The glycosaminoglycan-binding domain of decoy receptor 3 is essential for induction of monocyte adhesion.](#)  
 28. Chang YC, Chan YH, Jackson DG, Hsieh SL.  
 J Immunol. 2006 Jan 1;176(1):173-80.  
 PMID: 16365408 [PubMed - indexed for MEDLINE] **Free Article**
- [Notch deficiency implicated in the pathogenesis of congenital disorder of glycosylation IIc.](#)  
 29. Ishikawa HO, Higashi S, Ayukawa T, Sasamura T, Kitagawa M, Harigaya K, Aoki K, Ishida N, Sanai Y, Matsuno K.  
 Proc Natl Acad Sci U S A. 2005 Dec 20;102(51):18532-7. Epub 2005 Dec 12.  
 PMID: 16344471 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Peripheral genotype-phenotype correlations in Asian Indians with type 2 diabetes mellitus.](#)  
 30. Rao PV, Lu X, Pattee P, Turner M, Nandgaonkar S, Paturi BT, Roberts CT Jr, Nagalla SR.  
 J Assoc Physicians India. 2005 Jun;53:521-6.  
 PMID: 16121806 [PubMed - indexed for MEDLINE]
- [Core fucosylation of N-linked glycans in leukocyte adhesion deficiency/congenital disorder of glycosylation IIc fibroblasts.](#)  
 31. Sturla L, Fruscione F, Noda K, Miyoshi E, Taniguchi N, Contini P, Tonetti M.  
 Glycobiology. 2005 Oct;15(10):924-34. Epub 2005 May 25.  
 PMID: 15917429 [PubMed - indexed for MEDLINE] **Free Article**
- [Amelioration of neutrophil membrane function underlies granulocyte-colony stimulating factor action in glycogen storage disease 1b.](#)  
 32. Lesma E, Riva E, Giovannini M, Di Giulio AM, Gorio A.  
 Int J Immunopathol Pharmacol. 2005 Apr-Jun;18(2):297-307.  
 PMID: 15888252 [PubMed - indexed for MEDLINE]
- [Primary immunodeficiency in Hong Kong and the use of genetic analysis for diagnosis.](#)  
 33. Lam DS, Lee TL, Chan KW, Ho HK, Lau YL.  
 Hong Kong Med J. 2005 Apr;11(2):90-6.  
 PMID: 15815061 [PubMed - indexed for MEDLINE] **Free Article**
- [O-fucosylation of notch occurs in the endoplasmic reticulum.](#)  
 34. Luo Y, Haltiwanger RS.  
 J Biol Chem. 2005 Mar 25;280(12):11289-94. Epub 2005 Jan 14.  
 PMID: 15653671 [PubMed - indexed for MEDLINE] **Free Article**
- [\[Leukocyte-adhesion deficiency: a rare disorder of inflammation\].](#)  
 35. van Vliet DN, Brandsma AE, Hartwig NG.  
 Ned Tijdschr Geneesk. 2004 Dec 11;148(50):2496-500. Dutch.  
 PMID: 15638198 [PubMed - indexed for MEDLINE]
- [Identification and molecular cloning of a functional GDP-fucose transporter in Drosophila melanogaster.](#)  
 36. Lühn K, Laskowska A, Pielage J, Klämbt C, Ipe U, Vestweber D, Wild MK.  
 Exp Cell Res. 2004 Dec 10;301(2):242-50.  
 PMID: 15530860 [PubMed - indexed for MEDLINE]
- [Human memory B cells transferred by allogeneic bone marrow transplantation contribute significantly to the antibody repertoire of the recipient.](#)  
 37. Lausen BF, Hougs L, Schejbel L, Heilmann C, Barington T.  
 J Immunol. 2004 Mar 1;172(5):3305-18.  
 PMID: 14978139 [PubMed - indexed for MEDLINE] **Free Article**
- [Antigen presentation and immune regulatory capacity of immature and mature-enriched antigen presenting \(dendritic\) cells derived from human bone marrow.](#)  
 38. Jin Y, Fuller L, Ciancio G, Burke GW 3rd, Tzakis AG, Ricordi C, Miller J, Esquenazi V.  
 Hum Immunol. 2004 Feb;65(2):93-103.  
 PMID: 14969764 [PubMed - indexed for MEDLINE]
- [Unique CD18 mutations involving a deletion in the extracellular stalk region and a major truncation of the cytoplasmic domain in a patient with leukocyte adhesion deficiency type 1.](#)  
 39. Hixson P, Smith CW, Shurin SB, Tosi MF.  
 Blood. 2004 Feb 1;103(3):1105-13. Epub 2003 Sep 25.

PMID: 14512306 [PubMed - indexed for MEDLINE] **Free Article**

- 40. [SLAM-associated protein deficiency causes imbalanced early signal transduction and blocks downstream activation in T cells from X-linked lymphoproliferative disease patients.](#)  
Sanzone S, Zeyda M, Saemann MD, Soncini M, Holter W, Fritsch G, Knapp W, Candotti F, Stulnig TM, Parolini O.  
J Biol Chem. 2003 Aug 8;278(32):29593-9. Epub 2003 May 23.  
PMID: 12766168 [PubMed - indexed for MEDLINE] **Free Article**
- 41. [Molecular physiology and pathology of the nucleotide sugar transporter family \(SLC35\).](#)  
Ishida N, Kawakita M.  
Pflugers Arch. 2004 Feb;447(5):768-75. Epub 2003 May 21. Review.  
PMID: 12759756 [PubMed - indexed for MEDLINE]
- 42. [Differential terminal fucosylation of N-linked glycans versus protein O-fucosylation in leukocyte adhesion deficiency type II \(CDG IIc\).](#)  
Sturla L, Rampal R, Haltiwanger RS, Fruscione F, Etzioni A, Tonetti M.  
J Biol Chem. 2003 Jul 18;278(29):26727-33. Epub 2003 May 8.  
PMID: 12738772 [PubMed - indexed for MEDLINE] **Free Article**
- 43. [Unrelated bone marrow transplantation for leukocyte adhesion deficiency.](#)  
Farinha NJ, Duval M, Wagner E, Champagne J, Lapointe N, Barrette S, Tapiero B, Busque L, Champagne MA.  
Bone Marrow Transplant. 2002 Dec;30(12):979-81.  
PMID: 12476295 [PubMed - indexed for MEDLINE] **Free Article**
- 44. [Leukocyte adhesion deficiency II: therapy and genetic defect.](#)  
Wild MK, Lühn K, Marquardt T, Vestweber D.  
Cells Tissues Organs. 2002;172(3):161-73. Review.  
PMID: 12476046 [PubMed - indexed for MEDLINE]
- 45. [Hemophagocytic lymphohistiocytosis is associated with deficiencies of cellular cytolysis but normal expression of transcripts relevant to killer-cell-induced apoptosis.](#)  
Schneider EM, Lorenz I, Müller-Rosenberger M, Steinbach G, Kron M, Janka-Schaub GE.  
Blood. 2002 Oct 15;100(8):2891-8.  
PMID: 12351400 [PubMed - indexed for MEDLINE] **Free Article**
- 46. [The association of leukocyte adhesion defect type I and persistent hyperinsulinemic hypoglycemia of infancy in a Saudi Arabian family.](#)  
Suliaman F, Jabbar MA.  
Pediatr Hematol Oncol. 2002 Sep;19(6):429-32.  
PMID: 12186366 [PubMed - indexed for MEDLINE]
- 47. [Leukocyte adhesion deficiency \(LAD\) type II/carbohydrate deficient glycoprotein \(CDG\) IIc founder effect and genotype/phenotype correlation.](#)  
Etzioni A, Sturla L, Antonellis A, Green ED, Gershoni-Baruch R, Berninsone PM, Hirschberg CB, Tonetti M.  
Am J Med Genet. 2002 Jun 15;110(2):131-5.  
PMID: 12116250 [PubMed - indexed for MEDLINE]
- 48. [Hematologically important mutations: leukocyte adhesion deficiency.](#)  
Roos D, Law SK.  
Blood Cells Mol Dis. 2001 Nov-Dec;27(6):1000-4. Review.  
PMID: 11831866 [PubMed - indexed for MEDLINE]
- 49. [Characterization of four CD18 mutants in leukocyte adhesion deficient \(LAD\) patients with differential capacities to support expression and function of the CD11/CD18 integrins LFA-1, Mac-1 and p150,95.](#)  
Shaw JM, Al-Shamkhani A, Boxer LA, Buckley CD, Dodds AW, Klein N, Nolan SM, Roberts I, Roos D, Scarth SL, Simmons DL, Tan SM, Law SK.  
Clin Exp Immunol. 2001 Nov;126(2):311-8.  
PMID: 11703376 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 50. [Congenital disorders involving defective N-glycosylation of proteins.](#)  
Schachter H.  
Cell Mol Life Sci. 2001 Jul;58(8):1085-104. Review.  
PMID: 11529501 [PubMed - indexed for MEDLINE]
- 51. [Golgi nucleotide sugar transport and leukocyte adhesion deficiency II.](#)  
Hirschberg CB.  
J Clin Invest. 2001 Jul;108(1):3-6. Review. No abstract available.  
PMID: 11435449 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 52. [Increased incidence of sepsis and altered monocyte functions in severely injured type A- glucose-6-phosphate dehydrogenase-deficient African American trauma patients.](#)

- Spolarics Z, Siddiqi M, Siegel JH, Garcia ZC, Stein DS, Ong H, Livingston DH, Denny T, Deitch EA.  
Crit Care Med. 2001 Apr;29(4):728-36.  
PMID: 11373456 [PubMed - indexed for MEDLINE]
- [Nonopsonic phagocytosis of Pseudomonas aeruginosa: insights from an infant with leukocyte adhesion deficiency.](#)
53. Pollard AJ, Heale JP, Tsang A, Massing B, Speert DP.  
Pediatr Infect Dis J. 2001 Apr;20(4):452-4.  
PMID: 11332677 [PubMed - indexed for MEDLINE]
- [Complementation cloning identifies CDG-IIc, a new type of congenital disorders of glycosylation, as a GDP-fucose transporter deficiency.](#)
54. Lübke T, Marquardt T, Etzioni A, Hartmann E, von Figura K, Körner C.  
Nat Genet. 2001 May;28(1):73-6.  
PMID: 11326280 [PubMed - indexed for MEDLINE]
- [The gene defective in leukocyte adhesion deficiency II encodes a putative GDP-fucose transporter.](#)
55. Lühn K, Wild MK, Eckhardt M, Gerardy-Schahn R, Vestweber D.  
Nat Genet. 2001 May;28(1):69-72.  
PMID: 11326279 [PubMed - indexed for MEDLINE]
- [Inhibition of antigen-receptor signaling by Platelet Endothelial Cell Adhesion Molecule-1 \(CD31\) requires functional ITIMs, SHP-2, and p56\(lck\).](#)
56. Newman DK, Hamilton C, Newman PJ.  
Blood. 2001 Apr 15;97(8):2351-7.  
PMID: 11290597 [PubMed - indexed for MEDLINE] **Free Article**
- [Leukocyte adhesion deficiency II-from A to almost Z.](#)
57. Etzioni A, Tonetti M.  
Immunol Rev. 2000 Dec;178:138-47. Review.  
PMID: 11213799 [PubMed - indexed for MEDLINE]
- [\[Leukocyte adhesion deficiency, type II\].](#)
58. Kawamura N, Kobayashi K.  
Ryokibetsu Shokogun Shirizu. 2000;(32):173-6. Review. Japanese. No abstract available.  
PMID: 11212680 [PubMed - indexed for MEDLINE]
- [\[Hereditary polymorphonuclear neutrophil deficiencies\].](#)
59. Chollet-Martin S, Gougerot-Pocidal MA.  
Transfus Clin Biol. 2000 Dec;7(6):533-9. Review. French.  
PMID: 11204838 [PubMed - indexed for MEDLINE]
- [Discontinuation of fucose therapy in LADII causes rapid loss of selectin ligands and rise of leukocyte counts.](#)
60. Lühn K, Marquardt T, Harms E, Vestweber D.  
Blood. 2001 Jan 1;97(1):330-2.  
PMID: 11133780 [PubMed - indexed for MEDLINE] **Free Article**
- [Deficient iNOS in inflammatory bowel disease intestinal microvascular endothelial cells results in increased leukocyte adhesion.](#)
61. Binion DG, Rafiee P, Ramanujam KS, Fu S, Fisher PJ, Rivera MT, Johnson CP, Otterson MF, Telford GL, Wilson KT.  
Free Radic Biol Med. 2000 Nov 1;29(9):881-8.  
PMID: 11063913 [PubMed - indexed for MEDLINE]
- [Fucose supplementation in leukocyte adhesion deficiency type II.](#)
62. Etzioni A, Tonetti M.  
Blood. 2000 Jun 1;95(11):3641-3. No abstract available.  
PMID: 10877554 [PubMed - indexed for MEDLINE] **Free Article**
- [Protein glycosylation and diseases: blood and urinary oligosaccharides as markers for diagnosis and therapeutic monitoring.](#)
63. Durand G, Seta N.  
Clin Chem. 2000 Jun;46(6 Pt 1):795-805. Review.  
PMID: 10839767 [PubMed - indexed for MEDLINE] **Free Article**
- [Endotoxin-induced lung inflammation is independent of the complement membrane attack complex.](#)
64. Brauer RB, Gegenfurtner C, Neumann B, Stadler M, Heidecke CD, Holzmann B.  
Infect Immun. 2000 Mar;68(3):1626-32.  
PMID: 10678982 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [The Leishmania GDP-mannose transporter is an autonomous, multi-specific, hexameric complex of LPG2 subunits.](#)
65. Hong K, Ma D, Beverley SM, Turco SJ.  
Biochemistry. 2000 Feb 29;39(8):2013-22.  
PMID: 10684651 [PubMed - indexed for MEDLINE]

- 66. [Correction of leukocyte adhesion deficiency type II with oral fucose.](#)  
Marquardt T, Lühn K, Srikrishna G, Freeze HH, Harms E, Vestweber D.  
Blood. 1999 Dec 15;94(12):3976-85.  
PMID: 10590041 [PubMed - indexed for MEDLINE] **Free Article**
- 67. [Leukocyte adhesion deficiency type II.](#)  
Becker DJ, Lowe JB.  
Biochim Biophys Acta. 1999 Oct 8;1455(2-3):193-204. Review.  
PMID: 10571012 [PubMed - indexed for MEDLINE]
- 68. [A new type of carbohydrate-deficient glycoprotein syndrome due to a decreased import of GDP-fucose into the golgi.](#)  
Lübke T, Marquardt T, von Figura K, Körner C.  
J Biol Chem. 1999 Sep 10;274(37):25986-9.  
PMID: 10473542 [PubMed - indexed for MEDLINE] **Free Article**
- 69. [Decreased availability of GDP-L-fucose in a patient with LAD II with normal GDP-D-mannose dehydratase and FX protein activities.](#)  
Körner C, Linnebank M, Koch HG, Harms E, von Figura K, Marquardt T.  
J Leukoc Biol. 1999 Jul;66(1):95-8.  
PMID: 10410995 [PubMed - indexed for MEDLINE] **Free Article**
- 70. [Growth of Mycobacterium bovis, Bacille Calmette-Guérin, within human monocytes-macrophages cultured in serum-free medium.](#)  
Lamhamedi-Cherradi S, de Chastellier C, Casanova JL.  
J Immunol Methods. 1999 May 27;225(1-2):75-86.  
PMID: 10365784 [PubMed - indexed for MEDLINE]
- 71. [Pyoderma gangrenosum in a child with congenital partial deficiency of leukocyte adherence glycoproteins.](#)  
Bedlow AJ, Davies EG, Moss AL, Rebuck N, Finn A, Marsden RA.  
Br J Dermatol. 1998 Dec;139(6):1064-7.  
PMID: 9990374 [PubMed - indexed for MEDLINE]
- 72. [GDP-4-keto-6-deoxy-D-mannose epimerase/reductase from Escherichia coli, a key enzyme in the biosynthesis of GDP-L-fucose, displays the structural characteristics of the RED protein homology superfamily.](#)  
Rizzi M, Tonetti M, Vigevani P, Sturla L, Bisso A, Flora AD, Bordo D, Bolognesi M.  
Structure. 1998 Nov 15;6(11):1453-65.  
PMID: 9817848 [PubMed - indexed for MEDLINE]
- 73. [Leukocyte adhesion deficiency type II: long-term follow-up.](#)  
Etzioni A, Gershoni-Baruch R, Pollack S, Shehadeh N.  
J Allergy Clin Immunol. 1998 Aug;102(2):323-4. No abstract available.  
PMID: 9723680 [PubMed - indexed for MEDLINE]
- 74. [Watanabe rabbits with heritable hypercholesterolaemia: a model of atherosclerosis.](#)  
Aliiev G, Burnstock G.  
Histol Histopathol. 1998 Jul;13(3):797-817. Review.  
PMID: 9690137 [PubMed - indexed for MEDLINE]
- 75. [Defective intracellular activity of GDP-D-mannose-4,6-dehydratase in leukocyte adhesion deficiency type II syndrome.](#)  
Sturla L, Etzioni A, Bisso A, Zanardi D, De Flora G, Silengo L, De Flora A, Tonetti M.  
FEBS Lett. 1998 Jun 16;429(3):274-8.  
PMID: 9662431 [PubMed - indexed for MEDLINE]
- 76. [Leukocyte Adhesion Deficiency Type II is a generalized defect of de novo GDP-fucose biosynthesis. Endothelial cell fucosylation is not required for neutrophil rolling on human nonlymphoid endothelium.](#)  
Karsan A, Comejo CJ, Winn RK, Schwartz BR, Way W, Lannir N, Gershoni-Baruch R, Etzioni A, Ochs HD, Harlan JM.  
J Clin Invest. 1998 Jun 1;101(11):2438-45.  
PMID: 9616215 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 77. [Functional and phenotypic characterization of monoclonal antibodies to bovine L-selectin.](#)  
Wang Y, Paape MJ, Leino L, Capuco AV, Närvä H.  
Am J Vet Res. 1997 Dec;58(12):1392-401.  
PMID: 9401687 [PubMed - indexed for MEDLINE]
- 78. [Inherited disorders of glycoprotein synthesis: cell biological insights.](#)  
McDowell G, Gahl WA.  
Proc Soc Exp Biol Med. 1997 Jun;215(2):145-57. Review.  
PMID: 9160042 [PubMed - indexed for MEDLINE]
- 79. [Antigen-specific immune responsiveness and lymphocyte recruitment in leukocyte adhesion deficiency type II.](#)  
Kuijpers TW, Etzioni A, Pollack S, Pals ST.  
Int Immunol. 1997 Apr;9(4):607-13.  
PMID: 9138022 [PubMed - indexed for MEDLINE] **Free Article**

- 80. [Retinol \(vitamin A\) is a cofactor in CD3-induced human T-lymphocyte activation.](#)  
Allende LM, Corell A, Madroño A, Góngora R, Rodríguez-Gallego C, López-Goyanes A, Rosal M, Arnaiz-Villena A.  
Immunology. 1997 Mar;90(3):388-96.  
PMID: 9155646 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- 81. [Total cell content of CR3 \(CD11b/CD18\) and LFA-1 \(CD11a/CD18\) in neonatal neutrophils: relationship to gestational age.](#)  
McEvoy LT, Zakem-Cloud H, Tosi MF.  
Blood. 1996 May 1;87(9):3929-33.  
PMID: 8611722 [PubMed - indexed for MEDLINE] [Free Article](#)
- 82. [Prenatal diagnosis of Rambam-Hasharon syndrome.](#)  
Frydman M, Vardimon D, Shalev E, Orlin JB.  
Prenat Diagn. 1996 Mar;16(3):266-9.  
PMID: 8710783 [PubMed - indexed for MEDLINE]
- 83. [Neutrophil adhesion in leukocyte adhesion deficiency syndrome type 2.](#)  
Phillips ML, Schwartz BR, Etzioni A, Bayer R, Ochs HD, Paulson JC, Harlan JM.  
J Clin Invest. 1995 Dec;96(6):2898-906.  
PMID: 8675661 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- 84. [Effect of heparin anticoagulation on neutrophil adhesion molecules and release of IL8: C3 is not essential.](#)  
El Habbal MH, Smith L, Elliott MJ, Strobel S.  
Cardiovasc Res. 1995 Nov;30(5):676-81.  
PMID: 8595612 [PubMed - indexed for MEDLINE]
- 85. [Diseases of aberrant glycosylation.](#)  
Kościelak J.  
Acta Biochim Pol. 1995;42(1):1-10. Review.  
PMID: 7653149 [PubMed - indexed for MEDLINE] [Free Article](#)
- 86. [Complement receptor type 1 \(CR1\) deficiency on neutrophils in myelodysplastic syndrome.](#)  
Ohsaka A, Saionji K, Watanabe N, Yokomichi H, Sugahara Y, Nagayama R, Igari J.  
Br J Haematol. 1994 Oct;88(2):409-12.  
PMID: 7803293 [PubMed - indexed for MEDLINE]
- 87. [In vivo neutrophil and lymphocyte function studies in a patient with leukocyte adhesion deficiency type II.](#)  
Price TH, Ochs HD, Gershoni-Baruch R, Harlan JM, Etzioni A.  
Blood. 1994 Sep 1;84(5):1635-9.  
PMID: 8068953 [PubMed - indexed for MEDLINE] [Free Article](#)
- 88. [The Tat protein of human immunodeficiency virus type 1, a growth factor for AIDS Kaposi sarcoma and cytokine-activated vascular cells, induces adhesion of the same cell types by using integrin receptors recognizing the RGD amino acid sequence.](#)  
Barillari G, Gendelman R, Gallo RC, Ensoli B.  
Proc Natl Acad Sci U S A. 1993 Sep 1;90(17):7941-5.  
PMID: 7690138 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- 89. [A novel syndrome of severe neutrophil dysfunction: unresponsiveness confined to chemotaxin-induced functions.](#)  
Roos D, Kuijpers TW, Mascart-Lemone F, Koenderman L, de Boer M, van Zwieten R, Verhoeven AJ.  
Blood. 1993 May 15;81(10):2735-43.  
PMID: 8098232 [PubMed - indexed for MEDLINE] [Free Article](#)
- 90. [CD28- T lymphocytes. Antigenic and functional properties.](#)  
Azuma M, Phillips JH, Lanier LL.  
J Immunol. 1993 Feb 15;150(4):1147-59.  
PMID: 8381831 [PubMed - indexed for MEDLINE]
- 91. [Isolation and characterisation of a CDw50 negative Jurkat T-cell line variant \(PPL.1\).](#)  
Lozano F, Places L, Alberola-Ila J, Milá M, Villamor N, Barceló J, Fabregat V, Vives J.  
Leuk Res. 1993 Jan;17(1):9-16.  
PMID: 8429685 [PubMed - indexed for MEDLINE]
- 92. [Entactin stimulates neutrophil adhesion and chemotaxis through interactions between its Arg-Gly-Asp \(RGD\) domain and the leukocyte response integrin.](#)  
Senior RM, Gresham HD, Griffin GL, Brown EJ, Chung AE.  
J Clin Invest. 1992 Dec;90(6):2251-7.  
PMID: 1469085 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- 93. [Genetic cause of leukocyte adhesion molecule deficiency. Abnormal splicing and a missense mutation in a conserved region of CD18 impair cell surface expression of beta 2 integrins.](#)  
Nelson C, Rabb H, Azaout MA.  
J Biol Chem. 1992 Feb 15;267(5):3351-7.

PMID: 1346613 [PubMed - indexed for MEDLINE]

- 94.  [Critically ill anergic patients demonstrate polymorphonuclear neutrophil activation in the intravascular compartment with decreased cell delivery to inflammatory foci.](#)  
Tellado JM, Christou NV.  
J Leukoc Biol. 1991 Dec;50(6):547-53.  
PMID: 1658171 [PubMed - indexed for MEDLINE] **Free Article**
  
- 95.  [HIV-1 infection of human T lymphocytes results in enhanced alpha 5 beta 1 integrin expression.](#)  
Weeks BS, Klotman ME, Dhawan S, Kibbey M, Rappaport J, Kleinman HK, Yamada KM, Klotman PE.  
J Cell Biol. 1991 Aug;114(4):847-53.  
PMID: 1831204 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- 96.  [Defective neutrophil and lymphocyte function in leucocyte adhesion deficiency.](#)  
Lau YL, Low LC, Jones BM, Lawton JW.  
Clin Exp Immunol. 1991 Aug;85(2):202-8.  
PMID: 1677833 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- 97.  [Distinct mutations in two patients with leukocyte adhesion deficiency and their functional correlates.](#)  
Wardlaw AJ, Hibbs ML, Stacker SA, Springer TA.  
J Exp Med. 1990 Jul 1;172(1):335-45.  
PMID: 1694220 [PubMed - indexed for MEDLINE] **Free PMC Article**



# PubMed

Search: Leukocyte adhesion deficiency type 3 and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (15)

Display Settings: Summary, 20 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 15

1.  [High-dose continuous infusion beta-lactam antibiotics for the treatment of resistant \*Pseudomonas aeruginosa\* infections in immunocompromised patients.](#)  
Moriyama B, Henning SA, Childs R, Holland SM, Anderson VL, Morris JC, Wilson WH, Drusano GL, Walsh TJ.  
Ann Pharmacother. 2010 May;44(5):929-35. Epub 2010 Apr 6.  
PMID: 20371747 [PubMed - indexed for MEDLINE]
2.  [Osteomyelitis in leukocyte adhesion deficiency type 1 syndrome.](#)  
Jabbari Azad F, Ardalan M, Hoseinpoor Rafati A, Sotoudeh S, Pourpak Z.  
J Infect Dev Ctries. 2010 Mar 29;4(3):175-8.  
PMID: 20351460 [PubMed - indexed for MEDLINE] **Free Article**
3.  [Leukocyte adhesion deficiency type 1: an important consideration in the clinical differential diagnosis of prepubertal periodontitis. A case report and review of the literature.](#)  
Cox DP, Weathers DR.  
Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2008 Jan;105(1):86-90. Epub 2007 Jul 6. Review.  
PMID: 17618138 [PubMed - indexed for MEDLINE]
4.  [Somatic revertant mosaicism in a patient with leukocyte adhesion deficiency type 1.](#)  
Tone Y, Wada T, Shibata F, Toma T, Hashida Y, Kasahara Y, Koizumi S, Yachie A.  
Blood. 2007 Feb 1;109(3):1182-4.  
PMID: 17244687 [PubMed - indexed for MEDLINE] **Free Article**
5.  [Natural history and early diagnosis of LAD-1/variant syndrome.](#)  
Kuijpers TW, van Bruggen R, Kamerbeek N, Tool AT, Hicsonmez G, Gurgey A, Karow A, Verhoeven AJ, Seeger K, Sanal O, Niemeyer C, Roos D.  
Blood. 2007 Apr 15;109(8):3529-37. Epub 2006 Dec 21.  
PMID: 17185466 [PubMed - indexed for MEDLINE] **Free Article**
6.  [Preimplantation genetic diagnosis of leukocyte adhesion deficiency type I.](#)  
Lorusso F, Kong D, Jalil AK, Sylvestre C, Tan SL, Ao A.  
Fertil Steril. 2006 Feb;85(2):494.e15-8.  
PMID: 16595236 [PubMed - indexed for MEDLINE]
7.  [Unique CD18 mutations involving a deletion in the extracellular stalk region and a major truncation of the cytoplasmic domain in a patient with leukocyte adhesion deficiency type 1.](#)  
Hixson P, Smith CW, Shurin SB, Tosi MF.  
Blood. 2004 Feb 1;103(3):1105-13. Epub 2003 Sep 25.  
PMID: 14512306 [PubMed - indexed for MEDLINE] **Free Article**
8.  [Nonopsonic phagocytosis of \*Pseudomonas aeruginosa\*: insights from an infant with leukocyte adhesion deficiency.](#)  
Pollard AJ, Heale JP, Tsang A, Massing B, Speert DP.  
Pediatr Infect Dis J. 2001 Apr;20(4):452-4.  
PMID: 11332677 [PubMed - indexed for MEDLINE]
9.  [Discontinuation of fucose therapy in LADII causes rapid loss of selectin ligands and rise of leukocyte counts.](#)  
Lühn K, Marquardt T, Harms E, Vestweber D.  
Blood. 2001 Jan 1;97(1):330-2.  
PMID: 11133780 [PubMed - indexed for MEDLINE] **Free Article**
10.  [Defective intracellular activity of GDP-D-mannose-4,6-dehydratase in leukocyte adhesion deficiency type II syndrome.](#)  
Sturla L, Etzioni A, Bisso A, Zanardi D, De Flora G, Silengo L, De Flora A, Tonetti M.  
FEBS Lett. 1998 Jun 16;429(3):274-8.  
PMID: 9662431 [PubMed - indexed for MEDLINE]
11.  [Retroviral-mediated gene transfer of the leukocyte integrin CD18 into peripheral blood CD34+ cells derived from a patient with leukocyte adhesion deficiency type 1.](#)  
Bauer TR, Schwartz BR, Liles WC, Ochs HD, Hickstein DD.  
Blood. 1998 Mar 1;91(5):1520-6.  
PMID: 9473215 [PubMed - indexed for MEDLINE] **Free Article**



- [Prenatal diagnosis of Rambam-Hasharon syndrome.](#)
- 12. Frydman M, Vardimon D, Shalev E, Orlin JB.  
Prenat Diagn. 1996 Mar;16(3):266-9.  
PMID: 8710783 [PubMed - indexed for MEDLINE]
  
- [In vivo neutrophil and lymphocyte function studies in a patient with leukocyte adhesion deficiency type II.](#)
- 13. Price TH, Ochs HD, Gershoni-Baruch R, Harlan JM, Etzioni A.  
Blood. 1994 Sep 1;84(5):1635-9.  
PMID: 8068953 [PubMed - indexed for MEDLINE] **Free Article**
  
- [A point mutation associated with leukocyte adhesion deficiency type 1 of moderate severity.](#)
- 14. Back AL, Kerkering M, Baker D, Bauer TR, Embree LJ, Hickstein DD.  
Biochem Biophys Res Commun. 1993 Jun 30;193(3):912-8.  
PMID: 7686755 [PubMed - indexed for MEDLINE]
  
- [A novel syndrome of severe neutrophil dysfunction: unresponsiveness confined to chemotaxin-induced functions.](#)
- 15. Roos D, Kuijpers TW, Mascart-Lemone F, Koenderman L, de Boer M, van Zwieten R, Verhoeven AJ.  
Blood. 1993 May 15;81(10):2735-43.  
PMID: 8098232 [PubMed - indexed for MEDLINE] **Free Article**

Did you mean: [leukocyte adhesion deficiency type II and case reports](#) (11 items)**Results: 2**

- [The clinical spectrum of leukocyte adhesion deficiency \(LAD\) III due to defective CalDAG-GEF1.](#)
  1. Kilic SS, Etzioni A.  
J Clin Immunol. 2009 Jan;29(1):117-22. Epub 2008 Aug 16.  
PMID: 18709451 [PubMed - indexed for MEDLINE]
- [Bone marrow transplantation for leukocyte adhesion deficiency-I: case report.](#)
  2. Al-wahadneh AM, Haddadin I, Hamouri M, Omari K, Aejellat F.  
Saudi J Kidney Dis Transpl. 2006 Dec;17(4):564-7.  
PMID: 17186693 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: KINDLIN 3 and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (5)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

**Are you looking for gene information?**

Source: Gene Database

[See 5 articles](#) about **Fermt3 (KINDLIN 3)** gene function[Fermt3 \(KINDLIN 3\)](#) fermitin family homolog 3 (Drosophila) [Mus musculus]**Results: 5**

- [Novel integrin-dependent platelet malfunction in siblings with leukocyte adhesion deficiency-III \(LAD-III\) caused by a point mutation in FERMT3.](#)  
1. Jurk K, Schulz AS, Kehrel BE, Rappler D, Schulze H, Mobest D, Friedrich WW, Omran H, Deak E, Henschler R, Scheele JS, Zieger B. Thromb Haemost. 2010 May;103(5):1053-64. Epub 2010 Mar 9. PMID: 20216991 [PubMed - indexed for MEDLINE]
- [Leukocyte adhesion deficiency-III in an African-American patient.](#)  
2. Sabnis H, Kirpalani A, Horan J, McDowall A, Svensson L, Cooley A, Merck T, Jobe S, Hogg N, Briones M. Pediatr Blood Cancer. 2010 Jul 15;55(1):180-2. PMID: 20213844 [PubMed - indexed for MEDLINE]
- [A mutation in the canine Kindlin-3 gene associated with increased bleeding risk and susceptibility to infections.](#)  
3. Boudreaux MK, Wardrop KJ, Kiklevich V, Felsburg P, Snekvik K. Thromb Haemost. 2010 Feb;103(2):475-7. Epub 2009 Nov 13. No abstract available. PMID: 20126836 [PubMed - indexed for MEDLINE]
- [Kindlin-3: a new gene involved in the pathogenesis of LAD-III.](#)  
4. Mory A, Feigelson SW, Yarali N, Kilic SS, Bayhan GI, Gershoni-Baruch R, Etzioni A, Alon R. Blood. 2008 Sep 15;112(6):2591. No abstract available. PMID: 18779414 [PubMed - indexed for MEDLINE] **Free Article**
- [An Indian child with Kindler syndrome resulting from a new homozygous nonsense mutation \(C468X\) in the KIND1 gene.](#)  
5. Sethuraman G, Fassihi H, Ashton GH, Bansal A, Kabra M, Sharma VK, McGrath JA. Clin Exp Dermatol. 2005 May;30(3):286-8. PMID: 15807691 [PubMed - indexed for MEDLINE]

## Results: 87

1. [Antiphospholipid antibodies promote leukocyte-endothelial cell adhesion and thrombosis in mice by antagonizing eNOS via  \$\beta\$ 2GPI and apoER2.](#)  
Ramesh S, Morrell CN, Tarango C, Thomas GD, Yuhanna IS, Girardi G, Herz J, Urbanus RT, de Groot PG, Thorpe PE, Salmon JE, Shaul PW, Mineo C.  
J Clin Invest. 2011 Jan 4;121(1):120-31. doi: 10.1172/JCI39828. Epub 2010 Dec 1.  
PMID: 21123944 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
2. [High-dose continuous infusion beta-lactam antibiotics for the treatment of resistant Pseudomonas aeruginosa infections in immunocompromised patients.](#)  
Moriyama B, Henning SA, Childs R, Holland SM, Anderson VL, Morris JC, Wilson WH, Drusano GL, Walsh TJ.  
Ann Pharmacother. 2010 May;44(5):929-35. Epub 2010 Apr 6.  
PMID: 20371747 [PubMed - indexed for MEDLINE]
3. [Two mutations in the KINDLIN3 gene of a new leukocyte adhesion deficiency III patient reveal distinct effects on leukocyte function in vitro.](#)  
McDowall A, Svensson L, Stanley P, Patzak I, Chakravarty P, Howarth K, Sabnis H, Briones M, Hogg N.  
Blood. 2010 Jun 10;115(23):4834-42. Epub 2010 Mar 31.  
PMID: 20357244 [PubMed - indexed for MEDLINE]
4. [Osteomyelitis in leukocyte adhesion deficiency type 1 syndrome.](#)  
Jabbari Azad F, Ardalan M, Hoseinpoor Rafati A, Sotoudeh S, Pourpak Z.  
J Infect Dev Ctries. 2010 Mar 29;4(3):175-8.  
PMID: 20351460 [PubMed - indexed for MEDLINE] [Free Article](#)
5. [Ibuprofen inhibits cerebral aneurysms by down-regulating inflammation-related molecules in the vascular wall of rats.](#)  
Yagi K, Tada Y, Kitazato KT, Tamura T, Satomi J, Nagahiro S.  
Neurosurgery. 2010 Mar;66(3):551-9; discussion 559.  
PMID: 20124930 [PubMed - indexed for MEDLINE]
6. [Enoxaparin improves the course of dextran sodium sulfate-induced colitis in syndecan-1-deficient mice.](#)  
Floer M, Götte M, Wild MK, Heidemann J, Gassar ES, Domschke W, Kiesel L, Luegering A, Kucharzik T.  
Am J Pathol. 2010 Jan;176(1):146-57. Epub 2009 Dec 11.  
PMID: 20008145 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
7. [Synthesis of heparan sulfate with cyclophilin B-binding properties is determined by cell type-specific expression of sulfotransferases.](#)  
Deligny A, Denys A, Marcant A, Melchior A, Mazurier J, van Kuppevelt TH, Allain F.  
J Biol Chem. 2010 Jan 15;285(3):1701-15. Epub 2009 Nov 23.  
PMID: 19940140 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
8. [Complement receptor 3, not Dectin-1, is the major receptor on human neutrophils for beta-glucan-bearing particles.](#)  
van Bruggen R, Drewniak A, Jansen M, van Houdt M, Roos D, Chapel H, Verhoeven AJ, Kuijpers TW.  
Mol Immunol. 2009 Dec;47(2-3):575-81. Epub 2009 Oct 7.  
PMID: 19811837 [PubMed - indexed for MEDLINE]
9. [Clinical significance of complement deficiencies.](#)  
Pettigrew HD, Teuber SS, Gershwin ME.  
Ann N Y Acad Sci. 2009 Sep;1173:108-23. Review.  
PMID: 19758139 [PubMed - indexed for MEDLINE]
10. [Adiponectin suppresses pathological microvessel formation in retina through modulation of tumor necrosis factor-alpha expression.](#)  
Higuchi A, Ohashi K, Kihara S, Walsh K, Ouchi N.  
Circ Res. 2009 May 8;104(9):1058-65. Epub 2009 Apr 2.  
PMID: 19342600 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
11. [Leukocyte adhesion deficiency-III is caused by mutations in KINDLIN3 affecting integrin activation.](#)  
Svensson L, Howarth K, McDowall A, Patzak I, Evans R, Ussar S, Moser M, Metin A, Fried M, Tomlinson I, Hogg N.  
Nat Med. 2009 Mar;15(3):306-12. Epub 2009 Feb 22.  
PMID: 19234463 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
12. [A point mutation in KINDLIN3 ablates activation of three integrin subfamilies in humans.](#)  
Malinin NL, Zhang L, Choi J, Ciocea A, Razorenova O, Ma YQ, Podrez EA, Tosi M, Lennon DP, Caplan AI, Shurin SB, Plow EF, Byzova TV.

12. Nat Med. 2009 Mar;15(3):313-8. Epub 2009 Feb 22.  
PMID: 19234460 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
13. [Semicarbazide-sensitive amine oxidase/vascular adhesion protein-1 deficiency reduces leukocyte infiltration into adipose tissue and favors fat deposition.](#)  
Bour S, Caspar-Bauguil S, Iffiu-Soltész Z, Nibbelink M, Cousin B, Miiluniemi M, Salmi M, Stolen C, Jalkanen S, Casteilla L, Pénicaud L, Valet P, Carpéné C.  
Am J Pathol. 2009 Mar;174(3):1075-83. Epub 2009 Feb 13.  
PMID: 19218346 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
14. [LAD-1/variant syndrome is caused by mutations in FERMT3.](#)  
Kuijpers TW, van de Vijver E, Weterman MA, de Boer M, Tool AT, van den Berg TK, Moser M, Jakobs ME, Seeger K, Sanal O, Unal S, Cetin M, Roos D, Verhoeven AJ, Baas F.  
Blood. 2009 May 7;113(19):4740-6. Epub 2008 Dec 8.  
PMID: 19064721 [PubMed - indexed for MEDLINE] [Free Article](#)
15. [The clinical spectrum of leukocyte adhesion deficiency \(LAD\) III due to defective CalDAG-GEF1.](#)  
Kilic SS, Etzioni A.  
J Clin Immunol. 2009 Jan;29(1):117-22. Epub 2008 Aug 16.  
PMID: 18709451 [PubMed - indexed for MEDLINE]
16. [Impaired dendritic cell differentiation and maturation in the absence of C3.](#)  
Reis ES, Barbuto JA, Köhl J, Isaac L.  
Mol Immunol. 2008 Apr;45(7):1952-62. Epub 2007 Dec 3.  
PMID: 18061265 [PubMed - indexed for MEDLINE]
17. [LAD III versus LAD I variant.](#)  
Etzioni A, Alon R.  
Blood. 2007 Dec 1;110(12):4129; author reply 4129-30. No abstract available.  
PMID: 18024798 [PubMed - indexed for MEDLINE] [Free Article](#)
18. [Reversion mutations in patients with leukocyte adhesion deficiency type-1 \(LAD-1\).](#)  
Uzel G, Tng E, Rosenzweig SD, Hsu AP, Shaw JM, Horwitz ME, Linton GF, Anderson SM, Kirby MR, Oliveira JB, Brown MR, Fleisher TA, Law SK, Holland SM.  
Blood. 2008 Jan 1;111(1):209-18. Epub 2007 Sep 17.  
PMID: 17875809 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
19. [Leukocyte adhesion deficiency type 1: an important consideration in the clinical differential diagnosis of prepubertal periodontitis. A case report and review of the literature.](#)  
Cox DP, Weathers DR.  
Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2008 Jan;105(1):86-90. Epub 2007 Jul 6. Review.  
PMID: 17618138 [PubMed - indexed for MEDLINE]
20. [Mice lacking the signaling molecule CalDAG-GEFI represent a model for leukocyte adhesion deficiency type III.](#)  
Bergmeier W, Goerge T, Wang HW, Crittenden JR, Baldwin AC, Cifuni SM, Housman DE, Graybiel AM, Wagner DD.  
J Clin Invest. 2007 Jun;117(6):1699-707. Epub 2007 May 10.  
PMID: 17492052 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
21. [Decreased age-related cardiac dysfunction, myocardial nitrate stress, inflammatory gene expression, and apoptosis in mice lacking fatty acid amide hydrolase.](#)  
Bátkai S, Rajesh M, Mukhopadhyay P, Haskó G, Liaudet L, Cravatt BF, Csiszár A, Ungvári Z, Pacher P.  
Am J Physiol Heart Circ Physiol. 2007 Aug;293(2):H909-18. Epub 2007 Apr 13.  
PMID: 17434980 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
22. [ICAM-3 influences human immunodeficiency virus type 1 replication in CD4\(+\) T cells independent of DC-SIGN-mediated transmission.](#)  
Biggins JE, Biesinger T, Yu Kimata MT, Arora R, Kimata JT.  
Virology. 2007 Aug 1;364(2):383-94. Epub 2007 Apr 16.  
PMID: 17434553 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
23. [Quantification of dendritic cell subsets in human renal tissue under normal and pathological conditions.](#)  
Woltman AM, de Fijter JW, Zuidwijk K, Vlуг AG, Bajema IM, van der Kooij SW, van Ham V, van Kooten C.  
Kidney Int. 2007 May;71(10):1001-8. Epub 2007 Mar 14.  
PMID: 17361115 [PubMed - indexed for MEDLINE]
24. [Complement receptor 3 and Toll-like receptor 4 act sequentially in uptake and intracellular killing of unopsonized Salmonella enterica serovar Typhimurium by human neutrophils.](#)  
van Bruggen R, Zweers D, van Diepen A, van Dissel JT, Roos D, Verhoeven AJ, Kuijpers TW.  
Infect Immun. 2007 Jun;75(6):2655-60. Epub 2007 Mar 12.  
PMID: 17353285 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

- [Clinical and laboratory findings in Iranian patients with leukocyte adhesion deficiency \(study of 15 cases\).](#)
- 25. Movahedi M, Entezari N, Pourpak Z, Mamishi S, Chavoshzadeh Z, Gharagozlou M, Mir-Saeed-Ghazi B, Fazlollahi MR, Zandieh F, Bermanian MH, Farhoudi A, Aghamohammadi A.  
J Clin Immunol. 2007 May;27(3):302-7. Epub 2007 Feb 10. Erratum in: J Clin Immunol. 2008 Jan;28(1):92. Aghamohammadi, Asghar [added].  
PMID: 17294145 [PubMed - indexed for MEDLINE]
- [Functional characterization of natural killer cells in type I leukocyte adhesion deficiency.](#)
- 26. Castriconi R, Dondero A, Cantoni C, Della Chiesa M, Prato C, Nanni M, Fiorini M, Notarangelo L, Parolini S, Moretta L, Notarangelo L, Moretta A, Bottino C.  
Blood. 2007 Jun 1;109(11):4873-81. Epub 2007 Feb 1.  
PMID: 17272509 [PubMed - indexed for MEDLINE] **Free Article**
- [Somatic revertant mosaicism in a patient with leukocyte adhesion deficiency type 1.](#)
- 27. Tone Y, Wada T, Shibata F, Toma T, Hashida Y, Kasahara Y, Koizumi S, Yachie A.  
Blood. 2007 Feb 1;109(3):1182-4.  
PMID: 17244687 [PubMed - indexed for MEDLINE] **Free Article**
- [Mice lacking SIGNR1 have stronger T helper 1 responses to Mycobacterium tuberculosis.](#)
- 28. Wieland CW, Koppel EA, den Dunnen J, Florquin S, McKenzie AN, van Kooyk Y, van der Poll T, Geijtenbeek TB.  
Microbes Infect. 2007 Feb;9(2):134-41. Epub 2006 Dec 14.  
PMID: 17224292 [PubMed - indexed for MEDLINE]
- [Bone marrow transplantation for leukocyte adhesion deficiency-I: case report.](#)
- 29. Al-wahadneh AM, Haddadin I, Hamouri M, Omari K, Aejellat F.  
Saudi J Kidney Dis Transpl. 2006 Dec;17(4):564-7.  
PMID: 17186693 [PubMed - indexed for MEDLINE] **Free Article**
- [Natural history and early diagnosis of LAD-1/variant syndrome.](#)
- 30. Kuijpers TW, van Bruggen R, Kamerbeek N, Tool AT, Hicsonmez G, Gurgey A, Karow A, Verhoeven AJ, Seeger K, Sanal O, Niemeyer C, Roos D.  
Blood. 2007 Apr 15;109(8):3529-37. Epub 2006 Dec 21.  
PMID: 17185466 [PubMed - indexed for MEDLINE] **Free Article**
- [Dendritic cell-mediated HIV-1 transmission to T cells of LAD-1 patients is impaired due to the defect in LFA-1.](#)
- 31. Groot F, Kuijpers TW, Berkhout B, de Jong EC.  
Retrovirology. 2006 Nov 1;3:75.  
PMID: 17078873 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Preimplantation genetic diagnosis of leukocyte adhesion deficiency type I.](#)
- 32. Lorusso F, Kong D, Jalil AK, Sylvestre C, Tan SL, Ao A.  
Fertil Steril. 2006 Feb;85(2):494.e15-8.  
PMID: 16595236 [PubMed - indexed for MEDLINE]
- [The glycosaminoglycan-binding domain of decoy receptor 3 is essential for induction of monocyte adhesion.](#)
- 33. Chang YC, Chan YH, Jackson DG, Hsieh SL.  
J Immunol. 2006 Jan 1;176(1):173-80.  
PMID: 16365408 [PubMed - indexed for MEDLINE] **Free Article**
- [Peripheral genotype-phenotype correlations in Asian Indians with type 2 diabetes mellitus.](#)
- 34. Rao PV, Lu X, Pattee P, Turner M, Nandgaonkar S, Paturi BT, Roberts CT Jr, Nagalla SR.  
J Assoc Physicians India. 2005 Jun;53:521-6.  
PMID: 16121806 [PubMed - indexed for MEDLINE]
- [Vascular interleukin-10 protects against LPS-induced vasomotor dysfunction.](#)
- 35. Gunnnett CA, Lund DD, Faraci FM, Heistad DD.  
Am J Physiol Heart Circ Physiol. 2005 Aug;289(2):H624-30.  
PMID: 16014616 [PubMed - indexed for MEDLINE] **Free Article**
- [Neisseria gonorrhoeae enhances infection of dendritic cells by HIV type 1.](#)
- 36. Zhang J, Li G, Bafica A, Pantelic M, Zhang P, Broxmeyer H, Liu Y, Wetzler L, He JJ, Chen T.  
J Immunol. 2005 Jun 15;174(12):7995-8002.  
PMID: 15944306 [PubMed - indexed for MEDLINE] **Free Article**
- [Amelioration of neutrophil membrane function underlies granulocyte-colony stimulating factor action in glycogen storage disease 1b.](#)
- 37. Lesma E, Riva E, Giovannini M, Di Giulio AM, Gorio A.  
Int J Immunopathol Pharmacol. 2005 Apr-Jun;18(2):297-307.  
PMID: 15888252 [PubMed - indexed for MEDLINE]
- [\[Effect of cardiopulmonary bypass on selected neutrophil functions in children with cyanotic congenital heart disease\].](#)
- 38. Paśnik J, Baj Z, Pokoca L, Moll J, Moll J, Sysa A, Zeman K.  
Med Wieku Rozwoj. 2004 Jul-Sep;8(3 Pt 2):791-800. Polish.

PMID: 15858251 [PubMed - indexed for MEDLINE]

- [Osteopontin functionally activates dendritic cells and induces their differentiation toward a Th1-polarizing phenotype.](#)
- 39. Renkl AC, Wussler J, Ahrens T, Thoma K, Kon S, Uede T, Martin SF, Simon JC, Weiss JM.  
Blood. 2005 Aug 1;106(3):946-55. Epub 2005 Apr 26.  
PMID: 15855273 [PubMed - indexed for MEDLINE] **Free Article**
- [CD44 is a physiological E-selectin ligand on neutrophils.](#)
- 40. Katayama Y, Hidalgo A, Chang J, Peired A, Frenette PS.  
J Exp Med. 2005 Apr 18;201(8):1183-9. Epub 2005 Apr 11.  
PMID: 15824084 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [LSP1 is an endothelial gatekeeper of leukocyte transendothelial migration.](#)
- 41. Liu L, Cara DC, Kaur J, Raharjo E, Mullaly SC, Jongstra-Bilen J, Jongstra J, Kubes P.  
J Exp Med. 2005 Feb 7;201(3):409-18. Epub 2005 Jan 31.  
PMID: 15684321 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Gallic acid antagonizes P-selectin-mediated platelet-leukocyte interactions: implications for the French paradox.](#)
- 42. Appeldoorn CC, Bonnefoy A, Lutters BC, Daenens K, van Berkel TJ, Hoylaerts MF, Biessen EA.  
Circulation. 2005 Jan 4;111(1):106-12.  
PMID: 15630039 [PubMed - indexed for MEDLINE] **Free Article**
- [O-acetylation of cryptococcal capsular glucuronoxylomannan is essential for interference with neutrophil migration.](#)
- 43. Ellerbroek PM, Lefeber DJ, van Veghel R, Scharringa J, Brouwer E, Gerwig GJ, Janbon G, Hoepelman AI, Coenjaerts FE.  
J Immunol. 2004 Dec 15;173(12):7513-20.  
PMID: 15585878 [PubMed - indexed for MEDLINE] **Free Article**
- [Factor XIIIa transglutaminase crosslinks AT1 receptor dimers of monocytes at the onset of atherosclerosis.](#)
- 44. AbdAlla S, Lother H, Langer A, el Faramawy Y, Qwitterer U.  
Cell. 2004 Oct 29;119(3):343-54.  
PMID: 15507206 [PubMed - indexed for MEDLINE]
- [Control of TCR-mediated activation of beta 1 integrins by the ZAP-70 tyrosine kinase interdomain B region and the linker for activation of T cells adapter protein.](#)
- 45. Goda S, Quale AC, Woods ML, Felthouser A, Shimizu Y.  
J Immunol. 2004 May 1;172(9):5379-87.  
PMID: 15100278 [PubMed - indexed for MEDLINE] **Free Article**
- [Antigen presentation and immune regulatory capacity of immature and mature-enriched antigen presenting \(dendritic\) cells derived from human bone marrow.](#)
- 46. Jin Y, Fuller L, Ciancio G, Burke GW 3rd, Tzakis AG, Ricordi C, Miller J, Esquenzai V.  
Hum Immunol. 2004 Feb;65(2):93-103.  
PMID: 14969764 [PubMed - indexed for MEDLINE]
- [Unique CD18 mutations involving a deletion in the extracellular stalk region and a major truncation of the cytoplasmic domain in a patient with leukocyte adhesion deficiency type 1.](#)
- 47. Hixson P, Smith CW, Shurin SB, Tosi MF.  
Blood. 2004 Feb 1;103(3):1105-13. Epub 2003 Sep 25.  
PMID: 14512306 [PubMed - indexed for MEDLINE] **Free Article**
- [Molecular physiology and pathology of the nucleotide sugar transporter family \(SLC35\).](#)
- 48. Ishida N, Kawakita M.  
Pflugers Arch. 2004 Feb;447(5):768-75. Epub 2003 May 21. Review.  
PMID: 12759756 [PubMed - indexed for MEDLINE]
- [Hemophagocytic lymphohistiocytosis is associated with deficiencies of cellular cytolysis but normal expression of transcripts relevant to killer-cell-induced apoptosis.](#)
- 49. Schneider EM, Lorenz I, Müller-Rosenberger M, Steinbach G, Kron M, Janka-Schaub GE.  
Blood. 2002 Oct 15;100(8):2891-8.  
PMID: 12351400 [PubMed - indexed for MEDLINE] **Free Article**
- [Demonstration that C-reactive protein decreases eNOS expression and bioactivity in human aortic endothelial cells.](#)
- 50. Venugopal SK, Devaraj S, Yuhanna I, Shaul P, Jialal I.  
Circulation. 2002 Sep 17;106(12):1439-41.  
PMID: 12234944 [PubMed - indexed for MEDLINE] **Free Article**
- [A protective role for endothelial nitric oxide synthase in glomerulonephritis.](#)
- 51. Heeringa P, Steenbergen E, van Goor H.  
Kidney Int. 2002 Mar;61(3):822-5. Review.  
PMID: 11849432 [PubMed - indexed for MEDLINE] **Free Article**

- 52. [Congenital disorders involving defective N-glycosylation of proteins.](#)  
Schachter H.  
Cell Mol Life Sci. 2001 Jul;58(8):1085-104. Review.  
PMID: 11529501 [PubMed - indexed for MEDLINE]
- 53. [Biomechanical strain induces class a scavenger receptor expression in human monocyte/macrophages and THP-1 cells: a potential mechanism of increased atherosclerosis in hypertension.](#)  
Sakamoto H, Aikawa M, Hill CC, Weiss D, Taylor WR, Libby P, Lee RT.  
Circulation. 2001 Jul 3;104(1):109-14.  
PMID: 11435347 [PubMed - indexed for MEDLINE] **Free Article**
- 54. [Nonopsonic phagocytosis of Pseudomonas aeruginosa: insights from an infant with leukocyte adhesion deficiency.](#)  
Pollard AJ, Heale JP, Tsang A, Massing B, Speert DP.  
Pediatr Infect Dis J. 2001 Apr;20(4):452-4.  
PMID: 11332677 [PubMed - indexed for MEDLINE]
- 55. [Inhibition of antigen-receptor signaling by Platelet Endothelial Cell Adhesion Molecule-1 \(CD31\) requires functional ITIMs, SHP-2, and p56\(lck\).](#)  
Newman DK, Hamilton C, Newman PJ.  
Blood. 2001 Apr 15;97(8):2351-7.  
PMID: 11290597 [PubMed - indexed for MEDLINE] **Free Article**
- 56. [The neural recognition molecule L1 is a sialic acid-binding lectin for CD24, which induces promotion and inhibition of neurite outgrowth.](#)  
Kleene R, Yang H, Kutsche M, Schachner M.  
J Biol Chem. 2001 Jun 15;276(24):21656-63. Epub 2001 Mar 30.  
PMID: 11283023 [PubMed - indexed for MEDLINE] **Free Article**
- 57. [\[Leukocyte adhesion deficiency, type II\].](#)  
Kawamura N, Kobayashi K.  
Ryoikibetsu Shokogun Shirizu. 2000;(32):173-6. Review. Japanese. No abstract available.  
PMID: 11212680 [PubMed - indexed for MEDLINE]
- 58. [A novel syndrome of variant leukocyte adhesion deficiency involving defects in adhesion mediated by beta1 and beta2 integrins.](#)  
Harris ES, Shigeoka AO, Li W, Adams RH, Prescott SM, McIntyre TM, Zimmerman GA, Lorant DE.  
Blood. 2001 Feb 1;97(3):767-76.  
PMID: 11157496 [PubMed - indexed for MEDLINE] **Free Article**
- 59. [Inhibition of in vivo neutrophil transmigration by a novel humanized anti-CD11/CD18 monoclonal antibody.](#)  
Liles WC, Dale DC, Price TH, Gavrira JM, Turner T, Saoud J, Frumkin LR.  
Cytokines Cell Mol Ther. 2000 Sep;6(3):121-6.  
PMID: 11140880 [PubMed - indexed for MEDLINE]
- 60. [Discontinuation of fucose therapy in LADII causes rapid loss of selectin ligands and rise of leukocyte counts.](#)  
Lühn K, Marquardt T, Harms E, Vestweber D.  
Blood. 2001 Jan 1;97(1):330-2.  
PMID: 11133780 [PubMed - indexed for MEDLINE] **Free Article**
- 61. [Delayed onset of inflammation in protease-activated receptor-2-deficient mice.](#)  
Lindner JR, Kahn ML, Coughlin SR, Sambrano GR, Schauble E, Bernstein D, Foy D, Hafezi-Moghadam A, Ley K.  
J Immunol. 2000 Dec 1;165(11):6504-10.  
PMID: 11086091 [PubMed - indexed for MEDLINE] **Free Article**
- 62. [Endotoxin-induced lung inflammation is independent of the complement membrane attack complex.](#)  
Brauer RB, Gegenfurtner C, Neumann B, Stadler M, Heidecke CD, Holzmann B.  
Infect Immun. 2000 Mar;68(3):1626-32.  
PMID: 10678982 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 63. [Enterococcus faecalis aggregation substance promotes opsonin-independent binding to human neutrophils via a complement receptor type 3-mediated mechanism.](#)  
Vanek NN, Simon SI, Jacques-Palaz K, Mariscalco MM, Dunny GM, Rakita RM.  
FEMS Immunol Med Microbiol. 1999 Oct;26(1):49-60.  
PMID: 10518042 [PubMed - indexed for MEDLINE]
- 64. [Watanabe rabbits with heritable hypercholesterolaemia: a model of atherosclerosis.](#)  
Aliiev G, Burnstock G.  
Histol Histopathol. 1998 Jul;13(3):797-817. Review.  
PMID: 9690137 [PubMed - indexed for MEDLINE]
- 65. [Defective intracellular activity of GDP-D-mannose-4,6-dehydratase in leukocyte adhesion deficiency type II syndrome.](#)  
Sturla L, Etzioni A, Bisso A, Zanardi D, De Flora G, Silengo L, De Flora A, Tonetti M.



FEBS Lett. 1998 Jun 16;429(3):274-8.

PMID: 9662431 [PubMed - indexed for MEDLINE]

- 66. [Retroviral-mediated gene transfer of the leukocyte integrin CD18 into peripheral blood CD34+ cells derived from a patient with leukocyte adhesion deficiency type 1.](#)  
Bauer TR, Schwartz BR, Liles WC, Ochs HD, Hickstein DD.  
Blood. 1998 Mar 1;91(5):1520-6.  
PMID: 9473215 [PubMed - indexed for MEDLINE] **Free Article**
- 67. [Retinol \(vitamin A\) is a cofactor in CD3-induced human T-lymphocyte activation.](#)  
Allende LM, Corell A, Madroño A, Góngora R, Rodríguez-Gallego C, López-Goyanes A, Rosal M, Arnaiz-Villena A.  
Immunology. 1997 Mar;90(3):388-96.  
PMID: 9155646 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 68. [Deficiency of Src family kinases p59/61hck and p58c-fgr results in defective adhesion-dependent neutrophil functions.](#)  
Lowell CA, Fumagalli L, Berton G.  
J Cell Biol. 1996 May;133(4):895-910.  
PMID: 8666673 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 69. [Total cell content of CR3 \(CD11b/CD18\) and LFA-1 \(CD11a/CD18\) in neonatal neutrophils: relationship to gestational age.](#)  
McEvoy LT, Zakem-Cloud H, Tosi MF.  
Blood. 1996 May 1;87(9):3929-33.  
PMID: 8611722 [PubMed - indexed for MEDLINE] **Free Article**
- 70. [Prenatal diagnosis of Rambam-Hasharon syndrome.](#)  
Frydman M, Vardimon D, Shalev E, Orlin JB.  
Prenat Diagn. 1996 Mar;16(3):266-9.  
PMID: 8710783 [PubMed - indexed for MEDLINE]
- 71. [Effect of heparin anticoagulation on neutrophil adhesion molecules and release of IL8: C3 is not essential.](#)  
El Habbal MH, Smith L, Elliott MJ, Strobel S.  
Cardiovasc Res. 1995 Nov;30(5):676-81.  
PMID: 8595612 [PubMed - indexed for MEDLINE]
- 72. [Human urokinase-type plasminogen activator primes neutrophils for superoxide anion release. Possible roles of complement receptor type 3 and calcium.](#)  
Cao D, Mizukami IF, Gami-Wagner BA, Kindzelskii AL, Todd RF 3rd, Boxer LA, Petty HR.  
J Immunol. 1995 Feb 15;154(4):1817-29.  
PMID: 7836767 [PubMed - indexed for MEDLINE]
- 73. [In vivo neutrophil and lymphocyte function studies in a patient with leukocyte adhesion deficiency type II.](#)  
Price TH, Ochs HD, Gershoni-Baruch R, Harlan JM, Etzioni A.  
Blood. 1994 Sep 1;84(5):1635-9.  
PMID: 8068953 [PubMed - indexed for MEDLINE] **Free Article**
- 74. [Aberrant capping of membrane proteins on neutrophils from patients with leukocyte adhesion deficiency.](#)  
Kindzelskii AL, Xue W, Todd RF 3rd, Boxer LA, Petty HR.  
Blood. 1994 Mar 15;83(6):1650-5.  
PMID: 8123856 [PubMed - indexed for MEDLINE] **Free Article**
- 75. [The Tat protein of human immunodeficiency virus type 1, a growth factor for AIDS Kaposi sarcoma and cytokine-activated vascular cells, induces adhesion of the same cell types by using integrin receptors recognizing the RGD amino acid sequence.](#)  
Barillari G, Gendelman R, Gallo RC, Ensoli B.  
Proc Natl Acad Sci U S A. 1993 Sep 1;90(17):7941-5.  
PMID: 7690138 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 76. [A point mutation associated with leukocyte adhesion deficiency type 1 of moderate severity.](#)  
Back AL, Kerkering M, Baker D, Bauer TR, Embree LJ, Hickstein DD.  
Biochem Biophys Res Commun. 1993 Jun 30;193(3):912-8.  
PMID: 7686755 [PubMed - indexed for MEDLINE]
- 77. [A novel syndrome of severe neutrophil dysfunction: unresponsiveness confined to chemotaxin-induced functions.](#)  
Roos D, Kuijpers TW, Mascart-Lemone F, Koenderman L, de Boer M, van Zwieten R, Verhoeven AJ.  
Blood. 1993 May 15;81(10):2735-43.  
PMID: 8098232 [PubMed - indexed for MEDLINE] **Free Article**
- 78. [CD28- T lymphocytes. Antigenic and functional properties.](#)  
Azuma M, Phillips JH, Lanier LL.  
J Immunol. 1993 Feb 15;150(4):1147-59.  
PMID: 8381831 [PubMed - indexed for MEDLINE]

- 79.  [Genetic cause of leukocyte adhesion molecule deficiency. Abnormal splicing and a missense mutation in a conserved region of CD18 impair cell surface expression of beta 2 integrins.](#)  
Nelson C, Rabb H, Arnaout MA.  
J Biol Chem. 1992 Feb 15;267(5):3351-7.  
PMID: 1346613 [PubMed - indexed for MEDLINE]
- 80.  [Critically ill anergic patients demonstrate polymorphonuclear neutrophil activation in the intravascular compartment with decreased cell delivery to inflammatory foci.](#)  
Tellado JM, Christou NV.  
J Leukoc Biol. 1991 Dec;50(6):547-53.  
PMID: 1658171 [PubMed - indexed for MEDLINE] **Free Article**
- 81.  [Continuous cell activation is necessary for stable interaction of complement receptor type 3 with its counter-structure in the aggregation response of human neutrophils.](#)  
Kuypers TW, Koenderman L, Weening RS, Verhoeven AJ, Roos D.  
Eur J Immunol. 1990 Mar;20(3):501-8.  
PMID: 2180724 [PubMed - indexed for MEDLINE]
- 82.  [Biosynthesis and function of LFA-3 in human mutant cells deficient in phosphatidylinositol-anchored proteins.](#)  
Hollander N, Selvaraj P, Springer TA.  
J Immunol. 1988 Dec 15;141(12):4283-90.  
PMID: 2461988 [PubMed - indexed for MEDLINE]
- 83.  [Leukocyte adhesion deficiency: an inherited defect in the Mac-1, LFA-1, and p150.95 glycoproteins.](#)  
Anderson DC, Springer TA.  
Annu Rev Med. 1987;38:175-94.  
PMID: 3555290 [PubMed - indexed for MEDLINE]
- 84.  [Two functional domains in the phagocyte membrane glycoprotein Mo1 identified with monoclonal antibodies.](#)  
Dana N, Styrt B, Griffin JD, Todd RF 3rd, Klempner MS, Arnaout MA.  
J Immunol. 1986 Nov 15;137(10):3259-63.  
PMID: 2430017 [PubMed - indexed for MEDLINE]
- 85.  [Leukocyte complement receptors and adhesion proteins in the inflammatory response: insights from an experiment of nature.](#)  
Springer TA, Anderson DC.  
Biochem Soc Symp. 1986;51:47-57.  
PMID: 2949749 [PubMed - indexed for MEDLINE]
- 86.  [Sequence homology of the LFA-1 and Mac-1 leukocyte adhesion glycoproteins and unexpected relation to leukocyte interferon.](#)  
Springer TA, Teplow DB, Dreyer WJ.  
Nature. 1985 Apr 11-17;314(6011):540-2.  
PMID: 3887182 [PubMed - indexed for MEDLINE]
- 87.  [Specific inhibitory activity against granulocyte-progenitor cells produced by non-T lymphocytes from patients with neutropenia.](#)  
Broxmeyer HE, Pahwa R, Jacobsen N, Pelus LM, Ralph P, Meyers PA, Pahwa S, Kapoor N.  
Exp Hematol. 1980 Mar;8(3):278-97.  
PMID: 6161831 [PubMed - indexed for MEDLINE]

Display Settings: Summary, Sorted by Recently Added

Limits Activated: Humans [Change](#) | [Remove](#)**Results: 4**

- [Human phagocyte defect caused by a Rac2 mutation detected by means of neonatal screening for T-cell lymphopenia.](#)
  1. Accetta D, Syverson G, Bonacci B, Reddy S, Bengtson C, Surfus J, Harbeck R, Huttenlocher A, Grossman W, Routes J, Verbsky J. *J Allergy Clin Immunol.* 2011 Feb;127(2):535-538.e1-2. Epub 2010 Dec 16. No abstract available.  
PMID: 21167572 [PubMed - indexed for MEDLINE]
  
- [Clinical features of a human Rac2 mutation: a complex neutrophil dysfunction disease.](#)
  2. Kurkchubasche AG, Panepinto JA, Tracy TF Jr, Thurman GW, Ambruso DR. *J Pediatr.* 2001 Jul;139(1):141-7.  
PMID: 11445809 [PubMed - indexed for MEDLINE]
  
- [Dominant negative mutation of the hematopoietic-specific Rho GTPase, Rac2, is associated with a human phagocyte immunodeficiency.](#)
  3. Williams DA, Tao W, Yang F, Kim C, Gu Y, Mansfield P, Levine JE, Petryniak B, Derrow CW, Harris C, Jia B, Zheng Y, Ambruso DR, Lowe JB, Atkinson SJ, Dinauer MC, Boxer L. *Blood.* 2000 Sep 1;96(5):1646-54.  
PMID: 10961859 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Human neutrophil immunodeficiency syndrome is associated with an inhibitory Rac2 mutation.](#)
  4. Ambruso DR, Knall C, Abell AN, Panepinto J, Kurkchubasche A, Thurman G, Gonzalez-Aller C, Hiester A, deBoer M, Harbeck RJ, Oyer R, Johnson GL, Roos D. *Proc Natl Acad Sci U S A.* 2000 Apr 25;97(9):4654-9.  
PMID: 10758162 [PubMed - indexed for MEDLINE] **Free PMC Article**

# PubMed

Search: Rac 2 deficiency and and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (2)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

**Are you looking for gene information?**

Source: Gene Database

[See 105 articles](#) about **RAC2 (RAC 2)** gene function**RAC2 (RAC 2)** ras-related C3 botulinum toxin substrate 2 (rho family, small GTP binding protein Rac2) [Homo sapiens]rac 2 in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 20 Gene records](#)**Results: 2**

- [Human neutrophil immunodeficiency syndrome is associated with an inhibitory Rac2 mutation.](#)
- 1. Ambruso DR, Knall C, Abell AN, Panepinto J, Kurkchubasche A, Thurman G, Gonzalez-Aller C, Hiester A, deBoer M, Harbeck RJ, Oyer R, Johnson GL, Roos D.  
Proc Natl Acad Sci U S A. 2000 Apr 25;97(9):4654-9.  
PMID: 10758162 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Circulating plasma alpha-tocopherol following a single injection in a black rhinoceros \(Diceros bicornis\).](#)
- 2. Dierenfeld ES, Citino SB.  
J Wildl Dis. 1989 Oct;25(4):647-8.  
PMID: 2810570 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: b-Actin deficiency and case reports

U.S. National Library of Medicine  
National Institutes of Health

See the search [details](#).

No items found.

Limits Activated: Humans [Change](#) | [Remove](#)

Are you looking for gene information?

Source: Gene Database

[actb \(BACTIN\)](#) actin beta [Oncorhynchus mykiss]

# PubMed

Search: Cytoplasmic actin deficiency and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (3)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

## Results: 3

- [Human neutrophil immunodeficiency syndrome is associated with an inhibitory Rac2 mutation.](#)
- 1. Ambruso DR, Knall C, Abell AN, Panepinto J, Kurkchubasche A, Thurman G, Gonzalez-Aller C, Hiester A, deBoer M, Harbeck RJ, Oyer R, Johnson GL, Roos D.  
Proc Natl Acad Sci U S A. 2000 Apr 25;97(9):4654-9.  
PMID: 10758162 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [\[Gene expression in lactate dehydrogenase-A subunit deficiency\].](#)
- 2. Miyajima H, Shimizu T, Kaneko E.  
Rinsho Shinkeigaku. 1992 Oct;32(10):1087-92. Japanese.  
PMID: 1297552 [PubMed - indexed for MEDLINE]
- [Cytochrome oxidase deficiency affecting the structure of the myofibre and the shape of mitochondrial cristae membrane.](#)
- 3. Sumegi B, Melegh B, Adamovich K, Trombitas K.  
Clin Chim Acta. 1990 Nov 15;192(1):9-18.  
PMID: 2175684 [PubMed - indexed for MEDLINE]

# PubMed

Search: ACTB and case reports

U.S. National Library of Medicine  
National Institutes of Health

See the search [details](#).

No items found.

**Limits Activated:** Humans, Publication Date to 2010/12/1 [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 179 articles](#) about **ACTB** gene function

**ACTB** actin, beta [Homo sapiens]

**actb** in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 28 Gene records](#)

# PubMed

Search: case reports AND Localized juvenile periodontitis

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (65)

Display Settings: Summary, 100 per page, Sorted by Recently Added

[Manage Filters](#)Limits Activated: Humans, English [Change](#) | [Remove](#)

## Results: 65

1. [Cemental tear on a mandibular second molar: a case report.](#)  
Lin HJ, Chan CP, Wu CT, Jeng JH.  
Odontology. 2010 Jul;98(2):173-6. Epub 2010 Jul 23.  
PMID: 20652798 [PubMed - indexed for MEDLINE]
2. [Immediate tooth replacement using fiber-reinforced composite and natural tooth pontic.](#)  
Kermanshah H, Motevasselian F.  
Oper Dent. 2010 Mar-Apr;35(2):238-45.  
PMID: 20420068 [PubMed - indexed for MEDLINE]
3. [Multiple dental anomalies and aggressive periodontitis: a coincidence or an association?](#)  
Pradeep AR, Patel SP.  
Indian J Dent Res. 2009 Jul-Sep;20(3):374-6.  
PMID: 19884727 [PubMed - indexed for MEDLINE] **Free Article**
4. [Localized severe aggressive periodontitis. Disease progression and tooth preservation: a short case report over 14 years.](#)  
Pelka M, Petschelt A.  
Quintessence Int. 2009 Apr;40(4):271-3.  
PMID: 19417869 [PubMed - indexed for MEDLINE]
5. [Minimally invasive flap surgery and enamel matrix derivative in the treatment of localized aggressive periodontitis: case report.](#)  
Kaner D, Bernimoulin JP, Kleber BM, Friedmann A.  
Int J Periodontics Restorative Dent. 2009 Feb;29(1):89-97.  
PMID: 19244886 [PubMed - indexed for MEDLINE]
6. [Localized aggressive periodontitis associated with unusual gingival enlargement posing a diagnostic dilemma: a case report.](#)  
Jadwat Y, Anagnostopoulos C, Wood NH, Lemmer J, Meyerov RH, Feller L.  
SADJ. 2008 May;63(4):230-2.  
PMID: 18689337 [PubMed - indexed for MEDLINE]
7. [Bacterial colonization of oral implants from nondental sources.](#)  
Emrani J, Chee W, Slots J.  
Clin Implant Dent Relat Res. 2009 Jun;11(2):106-12. Epub 2008 Jul 24.  
PMID: 18657153 [PubMed - indexed for MEDLINE]
8. [Successful management of aggressive periodontitis by regenerative therapy: a 3-year follow-up case report.](#)  
Miliauskaite A, Selimovic D, Hannig M.  
J Periodontol. 2007 Oct;78(10):2043-50.  
PMID: 18062127 [PubMed - indexed for MEDLINE]
9. [Interdisciplinary treatment of localized juvenile periodontitis: a new perspective to an old problem.](#)  
Passanezi E, Janson M, Janson G, Sant'Anna AP, de Freitas MR, Henriques JF.  
Am J Orthod Dentofacial Orthop. 2007 Feb;131(2):268-76. Review.  
PMID: 17276870 [PubMed - indexed for MEDLINE]
10. [Eosinophilic granuloma masquerading as aggressive periodontitis.](#)  
Silvestros SS, Mamalis AA, Sklavounou AD, Tzerbos FX, Rontogianni DD.  
J Periodontol. 2006 May;77(5):917-21.  
PMID: 16671887 [PubMed - indexed for MEDLINE]
11. [Periodontitis as manifestation of Crohn's disease in primary dentition: a case report.](#)  
Sigusch BW.  
J Dent Child (Chic). 2004 Sep-Dec;71(3):193-6.  
PMID: 15871451 [PubMed - indexed for MEDLINE]
12. [Interdisciplinary treatment of a patient with severe pathologic tooth migration caused by localized aggressive periodontitis.](#)  
Maeda S, Maeda Y, Ono Y, Nakamura K, Sasaki T.  
Am J Orthod Dentofacial Orthop. 2005 Mar;127(3):374-84. Erratum in: Am J Orthod Dentofacial Orthop. 2005 Jun;127(6):647.  
PMID: 15775955 [PubMed - indexed for MEDLINE]



- [Localized aggressive periodontitis in a six-year-old: a case report.](#)
- 13. Hilgers KK, Dean JW, Mathieu GP.  
Pediatr Dent. 2004 Jul-Aug;26(4):345-51.  
PMID: 15344629 [PubMed - indexed for MEDLINE]
- [Hereditary gingival fibromatosis associated with generalized aggressive periodontitis: a case report.](#)
- 14. Casavecchia P, Uzel MI, Kantarci A, Hasturk H, Dibart S, Hart TC, Trackman PC, Van Dyke TE.  
J Periodontol. 2004 May;75(5):770-8.  
PMID: 15212361 [PubMed - indexed for MEDLINE]
- [Detection of a highly toxic clone of Actinobacillus actinomycetemcomitans \(JP2\) in a Moroccan immigrant family with multiple cases of localized aggressive periodontitis.](#)
- 15. Haubek D, Westergaard J.  
Int J Paediatr Dent. 2004 Jan;14(1):41-8.  
PMID: 14706027 [PubMed - indexed for MEDLINE]
- [Localized aggressive periodontitis in primary dentition: a case report.](#)
- 16. Suzuki J, Okada M, Wang Y, Nii N, Miura K, Kozai K.  
J Periodontol. 2003 Jul;74(7):1060-6.  
PMID: 12931770 [PubMed - indexed for MEDLINE]
- [The use of enamel matrix protein in the treatment of localized aggressive periodontitis: a case report.](#)
- 17. Bonta H, Llambes F, Moretti AJ, Mathur H, Bouwsma OJ.  
Quintessence Int. 2003 Apr;34(4):247-52.  
PMID: 12731609 [PubMed - indexed for MEDLINE]
- [Three case reports of aggressive periodontitis associated with Porphyromonas gingivalis in younger patients.](#)
- 18. Ishikawa I, Kawashima Y, Oda S, Iwata T, Arakawa S.  
J Periodontol. 2002 Oct;37(5):324-32.  
PMID: 12366854 [PubMed - indexed for MEDLINE]
- [Site-specific chlorhexidine: a periodontal alternative.](#)
- 19. Fowler EB, Breault LG, Bryant JB.  
Gen Dent. 2001 Jan-Feb;49(1):84-8.  
PMID: 12004682 [PubMed - indexed for MEDLINE]
- [Clinical, genetic and microbiological findings in a Brazilian family with aggressive periodontitis.](#)
- 20. Trevilatto PC, Tramontina VA, Machado MA, Gonçalves RB, Sallum AW, Line SR.  
J Clin Periodontol. 2002 Mar;29(3):233-9.  
PMID: 11940143 [PubMed - indexed for MEDLINE]
- [Endodontic infection caused by localized aggressive periodontitis: a case report and bacteriologic evaluation.](#)
- 21. Zehnder M.  
Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2001 Oct;92(4):440-5.  
PMID: 11598581 [PubMed - indexed for MEDLINE]
- [Localized aggressive periodontitis in a patient with type 1 diabetes mellitus: a case report.](#)
- 22. Emingil G, Darcan S, Keskinoğlu A, Kütükçüler N, Atilla G.  
J Periodontol. 2001 Sep;72(9):1265-70.  
PMID: 11577961 [PubMed - indexed for MEDLINE]
- [Testing your diagnostic skills \(#53\). Case 2. Localized juvenile periodontitis.](#)
- 23. Davis W.  
Today's FDA. 2001 Aug;13(8):20, 23. No abstract available.  
PMID: 11545063 [PubMed - indexed for MEDLINE]
- [Combined mechanical and antibiotic periodontal therapy in a case of Papillon-Lefèvre syndrome.](#)
- 24. Eickholz P, Kugel B, Pohl S, Näher H, Staehle HJ.  
J Periodontol. 2001 Apr;72(4):542-9.  
PMID: 11338309 [PubMed - indexed for MEDLINE]
- [Orthodontic treatment for a patient with Pierre-Robin sequence complicated by juvenile periodontitis.](#)
- 25. Okada K, Yamashiro T, Tenshin S, Takano-Yamamoto T.  
Cleft Palate Craniofac J. 2000 May;37(3):318-24. Review.  
PMID: 10830812 [PubMed - indexed for MEDLINE]
- [A 14-year follow-up study of localized juvenile periodontitis treated by scaling and root planing, systemic metronidazole, and subgingival curettage: a case report.](#)
- 26. Efeoğlu E, Sandalli P.  
Periodontol Clin Investig. 1996 Fall;18(2):6-12.  
PMID: 9116471 [PubMed - indexed for MEDLINE]

- [Clinical success in regeneration: report of a case.](#)
- 27. Dodson SA, Takei HH, Carranza FA Jr.  
Int J Periodontics Restorative Dent. 1996 Oct;16(5):455-61.  
PMID: 9084318 [PubMed - indexed for MEDLINE]
- [A case of localized juvenile periodontitis: treatment and 3 years follow-up with superimposable radiographs.](#)
- 28. Dubrez B, Baehni P, Cimasoni G.  
J Clin Periodontol. 1996 Jun;23(6):557-62.  
PMID: 8811475 [PubMed - indexed for MEDLINE]
- [Host defensive functions in a family manifesting early-onset periodontitis.](#)
- 29. Arai H, Chihara T, Takahashi K, Nagai A, Akutsu I, Takashiba S, Nishimura F, Kurihara H, Murayama Y.  
J Periodontol. 1996 Apr;67(4):433-42.  
PMID: 8708971 [PubMed - indexed for MEDLINE]
- [Immunological, genetic, and microbiological study of family members manifesting early-onset periodontitis.](#)
- 30. Nakagawa M, Kurihara H, Nishimura F, Isoshima O, Arai H, Sawada K, Nagai A, Murayama Y.  
J Periodontol. 1996 Mar;67(3):254-63.  
PMID: 8708958 [PubMed - indexed for MEDLINE]
- [Localized prepubertal periodontitis--nonsurgical treatment of an adolescent patient: a case report.](#)
- 31. Epstein SR.  
Pract Periodontics Aesthet Dent. 1995 Oct;7(8):55-9.  
PMID: 9002901 [PubMed - indexed for MEDLINE]
- [The possible association between localized juvenile periodontitis and supernumerary teeth.](#)
- 32. Odell EW, Hughes FJ.  
J Periodontol. 1995 Jun;66(6):449-51.  
PMID: 7562334 [PubMed - indexed for MEDLINE]
- [Clinical, microbiological and host defense parameters associated with a case of localized prepubertal periodontitis.](#)
- 33. Yoshida-Minami I, Kishimoto K, Suzuki A, Fujiwara T, Shintani S, Morisaki I, Sobue S, Miyamoto M, Nagai A, Kurihara H, et al.  
J Clin Periodontol. 1995 Jan;22(1):56-62.  
PMID: 7706540 [PubMed - indexed for MEDLINE]
- [Quantitative aspects of the subgingival distribution of Actinobacillus actinomycetemcomitans in a patient with localized juvenile periodontitis.](#)
- 34. van Winkelhoff AJ, de Groot P, Abbas F, de Graaff J.  
J Clin Periodontol. 1994 Mar;21(3):199-202.  
PMID: 8157774 [PubMed - indexed for MEDLINE]
- [Localized prepubertal periodontitis in a 5-year-old child: investigations and clinical observations over a 3-year period.](#)
- 35. Linden G, Fleming P, Coulter W, Lynn G.  
Int J Paediatr Dent. 1994 Mar;4(1):47-53.  
PMID: 7748849 [PubMed - indexed for MEDLINE]
- [Rapid bony healing in localized juvenile periodontitis: a case report.](#)
- 36. Sewón LA.  
Scand J Dent Res. 1993 Dec;101(6):371-4.  
PMID: 8290879 [PubMed - indexed for MEDLINE]
- [Current status of systemic antibiotic usage in destructive periodontal disease.](#)
- 37. Gordon JM, Walker CB.  
J Periodontol. 1993 Aug;64(8 Suppl):760-71. Review.  
PMID: 8410616 [PubMed - indexed for MEDLINE]
- [Oral-dental findings in a case of Maffucci's syndrome.](#)
- 38. Yavuzylmaz E, Yamalik N, Eratalay K, Atakan N.  
J Periodontol. 1993 Jul;64(7):673-7.  
PMID: 8366417 [PubMed - indexed for MEDLINE]
- [Guided tissue regeneration in the treatment of localized juvenile periodontitis--a multi-disciplinary approach in improving anterior esthetics: a case report.](#)
- 39. Levine RA, Kutalek KM.  
Compendium. 1993 May;14(5):622, 624-6, 628-30 passim; quiz 635. No abstract available.  
PMID: 8358755 [PubMed - indexed for MEDLINE]
- [Clinical and laboratory studies of severe periodontal disease in an adolescent associated with hypophosphatasia. A case report.](#)
- 40. Watanabe H, Umeda M, Seki T, Ishikawa I.  
J Periodontol. 1993 Mar;64(3):174-80.  
PMID: 8385214 [PubMed - indexed for MEDLINE]

- 41. [A multidisciplinary approach for localized juvenile periodontitis: a case report.](#)  
Yaffe A, Sommer M.  
Compendium. 1993 Feb;14(2):168, 170, 172 passim. No abstract available.  
PMID: 8467517 [PubMed - indexed for MEDLINE]
- 42. [Microbiological and clinical monitoring of non-localized juvenile periodontitis in young adults: a report of 11 cases.](#)  
van Steenberghe TJ, van der Velden U, Abbas F, de Graaff J.  
J Periodontol. 1993 Jan;64(1):40-7.  
PMID: 8381179 [PubMed - indexed for MEDLINE]
- 43. [Clinical, laboratory, and immunological studies of a family with a high prevalence of generalized prepubertal and juvenile periodontitis.](#)  
López NJ.  
J Periodontol. 1992 May;63(5):457-68.  
PMID: 1527690 [PubMed - indexed for MEDLINE]
- 44. [Multiple therapy approach to juvenile periodontitis: a case report.](#)  
Machtei EE, Zubery Y, Katz Y, Goultshin J, Ben-Yehouda A.  
Quintessence Int. 1991 May;22(5):365-70.  
PMID: 1924689 [PubMed - indexed for MEDLINE]
- 45. [Localized juvenile periodontitis: a case report.](#)  
Sayal A, Traversy MC.  
Univ Tor Dent J. 1991 Spring;4(2):9-10. No abstract available.  
PMID: 1889386 [PubMed - indexed for MEDLINE]
- 46. [A family study of a mother and daughter with increased susceptibility to early-onset periodontitis: microbiological, immunological, host defensive, and genetic analyses.](#)  
Nishimura F, Nagai A, Kurimoto K, Isoshima O, Takashiba S, Kobayashi M, Akutsu I, Kurihara H, Nomura Y, Murayama Y, et al.  
J Periodontol. 1990 Dec;61(12):755-62.  
PMID: 2125313 [PubMed - indexed for MEDLINE]
- 47. [Repair potential in localized juvenile periodontitis. A case in point.](#)  
Mattout P, Moskow BS, Fourel J.  
J Periodontol. 1990 Oct;61(10):653-60.  
PMID: 2231233 [PubMed - indexed for MEDLINE]
- 48. [Localized juvenile periodontitis: a case analysis and rational approach to treatment.](#)  
Pruthi VK, Angier JE, Gelskey SC.  
J Can Dent Assoc. 1990 May;56(5):427-31. Review.  
PMID: 2189533 [PubMed - indexed for MEDLINE]
- 49. [Clinical, microbiological and immunological studies of post-juvenile periodontitis.](#)  
Sasaki N, Nakagawa T, Seida K, Ishihara K, Okuda K.  
Bull Tokyo Dent Coll. 1989 Nov;30(4):205-11.  
PMID: 2640920 [PubMed - indexed for MEDLINE]
- 50. [Localized prepubertal periodontitis: literature review and report of case.](#)  
Myers DR, O'Dell NL, Clark JW, Cross RL.  
ASDC J Dent Child. 1989 Mar-Apr;56(2):107-11. Review.  
PMID: 2656787 [PubMed - indexed for MEDLINE]
- 51. [Unilateral localized juvenile periodontitis: a 2-year follow-up.](#)  
Farah CF, Bissada NF.  
Gen Dent. 1989 Mar-Apr;37(2):155-8. No abstract available.  
PMID: 2599331 [PubMed - indexed for MEDLINE]
- 52. [Paleopathology in Australopithecus africanus: a suggested case of a 3-million-year-old prepubertal periodontitis.](#)  
Ripamonti U.  
Am J Phys Anthropol. 1988 Jun;76(2):197-210.  
PMID: 3137821 [PubMed - indexed for MEDLINE]
- 53. [Early diagnosis of localized juvenile periodontitis--a case report.](#)  
Northeast SE.  
J Paediatr Dent. 1988 Apr;4(1):33-5. No abstract available.  
PMID: 3268646 [PubMed - indexed for MEDLINE]
- 54. [Supernumerary teeth and localized juvenile periodontitis: a review of the literature and case report.](#)  
Mendieta C, Gonzalez-Blanco A.  
Periodontal Case Rep. 1988;10(1):23-7. Review. No abstract available.  
PMID: 3077828 [PubMed - indexed for MEDLINE]

- 55. [Twenty-five month follow-up of an autogenous third molar transplantation in a localized juvenile periodontitis patient: a case report.](#)  
Levine RA.  
Compendium. 1987 Sep;8(8):560, 563, 566 passim. Review. No abstract available.  
PMID: 3315209 [PubMed - indexed for MEDLINE]
- 56. [Microbiology of subgingival plaque from children with localized prepubertal periodontitis.](#)  
Delaney JE, Kornman KS.  
Oral Microbiol Immunol. 1987 Jun;2(2):71-6.  
PMID: 10870471 [PubMed - indexed for MEDLINE]
- 57. [Atypical localized juvenile periodontitis. A case report and review of current treatment considerations.](#)  
Sterrett JD.  
J Periodontol. 1986 Aug;57(8):486-91.  
PMID: 3528452 [PubMed - indexed for MEDLINE]
- 58. [Localized juvenile periodontitis of the primary dentition.](#)  
Mandell RL, Siegal MD, Umland E.  
ASDC J Dent Child. 1986 May-Jun;53(3):193-6.  
PMID: 3458732 [PubMed - indexed for MEDLINE]
- 59. [Treated localized juvenile periodontitis without maintenance care--a 10 year case study.](#)  
Levine WZ, Winter AA.  
Periodontal Case Rep. 1986;8(1):27-33. No abstract available.  
PMID: 3462758 [PubMed - indexed for MEDLINE]
- 60. [Healing potential in periodontal lesions: localized juvenile periodontitis.](#)  
Moskow BS.  
J N J Dent Assoc. 1986 Winter;57(1):45-51. No abstract available.  
PMID: 3457901 [PubMed - indexed for MEDLINE]
- 61. [Localized juvenile periodontitis.](#)  
Migliorini SA.  
J Conn State Dent Assoc. 1984 Jul-Aug;58(3):143-50. No abstract available.  
PMID: 6432865 [PubMed - indexed for MEDLINE]
- 62. [Bacteriological study of periodontal lesions in two sisters with juvenile periodontitis and their mother.](#)  
Okuda K, Naito Y, Ohta K, Fukumoto Y, Kimura Y, Ishikawa I, Kinoshita S, Takazoe I.  
Infect Immun. 1984 Jul;45(1):118-21.  
PMID: 6429040 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 63. [The Papillon-Lefèvre syndrome: neutrophil dysfunction with severe periodontal disease.](#)  
Van Dyke TE, Taubman MA, Ebersole JL, Haffajee AD, Socransky SS, Smith DJ, Genco RJ.  
Clin Immunol Immunopathol. 1984 Jun;31(3):419-29.  
PMID: 6232030 [PubMed - indexed for MEDLINE]
- 64. [The formation and healing of osseous lesions in a patient with localized juvenile periodontitis. Case report.](#)  
Barnett ML, Baker RL.  
J Periodontol. 1983 Mar;54(3):148-50. No abstract available.  
PMID: 6573471 [PubMed - indexed for MEDLINE]
- 65. [Juvenile periodontitis - healing following therapy to control inflammatory and traumatic etiologic components of the disease.](#)  
Evian CI, Amsterdam M, Rosenberg ES.  
J Clin Periodontol. 1982 Jan;9(1):1-21.  
PMID: 7037865 [PubMed - indexed for MEDLINE]

Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 56

1. [Stable formyl peptide receptor agonists that activate the neutrophil NADPH-oxidase identified through screening of a compound library.](#)  
Forsman H, Kalderén C, Nordin A, Nordling E, Jensen AJ, Dahlgren C.  
Biochem Pharmacol. 2011 Feb 1;81(3):402-11. Epub 2010 Nov 21.  
PMID: 21095183 [PubMed - indexed for MEDLINE]
2. [Gastrin-releasing peptide/neuromedin B receptor antagonists PD176252, PD168368, and related analogs are potent agonists of human formyl-peptide receptors.](#)  
Schepetkin IA, Kirpotina LN, Khlebnikov AI, Jutila MA, Quinn MT.  
Mol Pharmacol. 2011 Jan;79(1):77-90. Epub 2010 Oct 13.  
PMID: 20943772 [PubMed - indexed for MEDLINE]
3. [Computational structure-activity relationship analysis of small-molecule agonists for human formyl peptide receptors.](#)  
Khlebnikov AI, Schepetkin IA, Quinn MT.  
Eur J Med Chem. 2010 Nov;45(11):5406-19. Epub 2010 Sep 15.  
PMID: 20870313 [PubMed - indexed for MEDLINE]
4. [Mitochondrial damage associated molecular patterns from femoral reamings activate neutrophils through formyl peptide receptors and P44/42 MAP kinase.](#)  
Hauser CJ, Sursal T, Rodriguez EK, Appleton PT, Zhang Q, Itagaki K.  
J Orthop Trauma. 2010 Sep;24(9):534-8.  
PMID: 20736789 [PubMed - indexed for MEDLINE]
5. [The FPR2-induced rise in cytosolic calcium in human neutrophils relies on an emptying of intracellular calcium stores and is inhibited by a gelsolin-derived PIP2-binding peptide.](#)  
Forsman H, Dahlgren C.  
BMC Cell Biol. 2010 Jul 6;11:52.  
PMID: 20602801 [PubMed - indexed for MEDLINE] **Free PMC Article**
6. [Mitochondrial peptides are potent immune activators that activate human neutrophils via FPR-1.](#)  
Raoof M, Zhang Q, Itagaki K, Hauser CJ.  
J Trauma. 2010 Jun;68(6):1328-32; discussion 1332-4.  
PMID: 20539176 [PubMed - indexed for MEDLINE]
7. [The anionic amphiphile SDS is an antagonist for the human neutrophil formyl peptide receptor 1.](#)  
Thorén FB, Karlsson J, Dahlgren C, Forsman H.  
Biochem Pharmacol. 2010 Aug 1;80(3):389-95. Epub 2010 Apr 13.  
PMID: 20394736 [PubMed - indexed for MEDLINE]
8. [The annexin I sequence gln\(9\)-ala\(10\)-trp\(11\)-phe\(12\) is a core structure for interaction with the formyl peptide receptor 1.](#)  
Movitz C, Brive L, Hellstrand K, Rabiet MJ, Dahlgren C.  
J Biol Chem. 2010 May 7;285(19):14338-45. Epub 2010 Mar 10.  
PMID: 20220135 [PubMed - indexed for MEDLINE]
9. [The G-protein-coupled formylpeptide receptor FPR confers a more invasive phenotype on human glioblastoma cells.](#)  
Huang J, Chen K, Chen J, Gong W, Dunlop NM, Howard OM, Gao Y, Bian XW, Wang JM.  
Br J Cancer. 2010 Mar 16;102(6):1052-60. Epub 2010 Mar 2.  
PMID: 20197768 [PubMed - indexed for MEDLINE] **Free PMC Article**
10. [Characterization of P-Rex1 for its role in fMet-Leu-Phe-induced superoxide production in reconstituted COS\(phox\) cells.](#)  
Nie B, Cheng N, Dinauer MC, Ye RD.  
Cell Signal. 2010 May;22(5):770-82. Epub 2010 Jan 13.  
PMID: 20074642 [PubMed - indexed for MEDLINE]
11. [A role for inflammatory mediators in heterologous desensitization of CysLT1 receptor in human monocytes.](#)  
Capra V, Accomazzo MR, Gardoni F, Barbieri S, Rovati GE.  
J Lipid Res. 2010 May;51(5):1075-84. Epub 2009 Nov 15.  
PMID: 19965602 [PubMed - indexed for MEDLINE]

12. [The pyrazolone originally reported to be a formyl peptide receptor \(FPR\) 2/ALX-selective agonist is instead an FPR1 and FPR2/ALX dual agonist.](#)  
Sogawa Y, Shimizugawa A, Ohyama T, Maeda H, Hirahara K.  
J Pharmacol Sci. 2009 Nov;111(3):317-21.  
PMID: 19926937 [PubMed - indexed for MEDLINE] **Free Article**
13. [Identification of novel small-molecule agonists for human formyl peptide receptors and pharmacophore models of their recognition.](#)  
Kirpotina LN, Khlebnikov AI, Schepetkin IA, Ye RD, Rabiet MJ, Jutila MA, Quinn MT.  
Mol Pharmacol. 2010 Feb;77(2):159-70. Epub 2009 Nov 10.  
PMID: 19903830 [PubMed - indexed for MEDLINE] **Free PMC Article**
14. [Functional expression of formyl peptide receptor family in human NK cells.](#)  
Kim SD, Kim JM, Jo SH, Lee HY, Lee SY, Shim JW, Seo SK, Yun J, Bae YS.  
J Immunol. 2009 Nov 1;183(9):5511-7.  
PMID: 19843937 [PubMed - indexed for MEDLINE] **Free Article**
15. [Lipoxin A\(4\) metabolites/analogues from two commercial sources have no effects on TNF-alpha-mediated priming or activation through the neutrophil formyl peptide receptors.](#)  
Forsman H, Dahlgren C.  
Scand J Immunol. 2009 Oct;70(4):396-402.  
PMID: 19751275 [PubMed - indexed for MEDLINE]
16. [Formylpeptide receptor single nucleotide polymorphism 348T>C and its relationship to polymorphonuclear leukocyte chemotaxis in aggressive periodontitis.](#)  
Maney P, Walters JD.  
J Periodontol. 2009 Sep;80(9):1498-505.  
PMID: 19722801 [PubMed - indexed for MEDLINE] **Free PMC Article**
17. [Transcriptional profiling reveals developmental relationship and distinct biological functions of CD16+ and CD16- monocyte subsets.](#)  
Ancuta P, Liu KY, Misra V, Wacleche VS, Gosselin A, Zhou X, Gabuzda D.  
BMC Genomics. 2009 Aug 27;10:403.  
PMID: 19712453 [PubMed - indexed for MEDLINE] **Free PMC Article**
18. [Involvement of Phospholipase D 1 and 2 in the subcellular localization and activity of formyl-peptide-receptors in the human colonic cell line HT29.](#)  
Brandenburg LO, Seyferth S, Wruck CJ, Koch T, Rosenstiel P, Lucius R, Pufe T.  
Mol Membr Biol. 2009 Aug;26(5):371-83. Epub 2009 Aug 21.  
PMID: 19707939 [PubMed - indexed for MEDLINE]
19. [6-methyl-2,4-disubstituted pyridazin-3\(2H\)-ones: a novel class of small-molecule agonists for formyl peptide receptors.](#)  
Cilibrizzi A, Quinn MT, Kirpotina LN, Schepetkin IA, Holderness J, Ye RD, Rabiet MJ, Biancalani C, Cesari N, Graziano A, Vergelli C, Pieretti S, Dal Piaz V, Giovannoni MP.  
J Med Chem. 2009 Aug 27;52(16):5044-57.  
PMID: 19639995 [PubMed - indexed for MEDLINE] **Free PMC Article**
20. [Human formyl peptide receptor 1 \(FPR1\) c.32C>T SNP is associated with decreased soluble E-selectin levels.](#)  
Benachour H, Zaiou M, Herbeth B, Lambert D, Lamont JV, Pfister M, Siest G, Tiret L, Blankenberg S, Fitzgerald PS, Visvikis-Siest S.  
Pharmacogenomics. 2009 Jun;10(6):951-9.  
PMID: 19530962 [PubMed - indexed for MEDLINE]
21. [International Union of Basic and Clinical Pharmacology. LXXIII. Nomenclature for the formyl peptide receptor \(FPR\) family.](#)  
Ye RD, Boulay F, Wang JM, Dahlgren C, Gerard C, Parmentier M, Serhan CN, Murphy PM.  
Pharmacol Rev. 2009 Jun;61(2):119-61. Epub 2009 Jun 4. Review.  
PMID: 19498085 [PubMed - indexed for MEDLINE] **Free PMC Article**
22. [The FPR2-specific ligand MMK-1 activates the neutrophil NADPH-oxidase, but triggers no unique pathway for opening of plasma membrane calcium channels.](#)  
Karlsson J, Stenfeldt AL, Rabiet MJ, Bylund J, Forsman HF, Dahlgren C.  
Cell Calcium. 2009 May;45(5):431-8. Epub 2009 Mar 17.  
PMID: 19282028 [PubMed - indexed for MEDLINE]
23. [Neutrophil formylpeptide receptor single nucleotide polymorphism 348T>C in aggressive periodontitis.](#)  
Maney P, Emecen P, Mills JS, Walters JD.  
J Periodontol. 2009 Mar;80(3):492-8.  
PMID: 19254133 [PubMed - indexed for MEDLINE] **Free PMC Article**
24. [Activation of formyl peptide receptor like-1 by serum amyloid A induces CCL2 production in human umbilical vein endothelial cells.](#)  
Lee HY, Kim SD, Shim JW, Yun J, Kim K, Bae YS.  
Biochem Biophys Res Commun. 2009 Mar 6;380(2):313-7. Epub 2009 Jan 22.  
PMID: 19167353 [PubMed - indexed for MEDLINE]

- [Annexin A1 and glucocorticoids as effectors of the resolution of inflammation.](#)
- 25. Perretti M, D'Acquisto F.  
Nat Rev Immunol. 2009 Jan;9(1):62-70. Review.  
PMID: 19104500 [PubMed - indexed for MEDLINE]
- [Involvement of formyl-peptide-receptor-like-1 and phospholipase D in the internalization and signal transduction of amyloid beta 1-42 in glial cells.](#)
- 26. Brandenburg LO, Konrad M, Wruck C, Koch T, Pufe T, Lucius R.  
Neuroscience. 2008 Oct 2;156(2):266-76. Epub 2008 Aug 5.  
PMID: 18723082 [PubMed - indexed for MEDLINE]
- [Variable responses of formyl peptide receptor haplotypes toward bacterial peptides.](#)
- 27. Gripenotrog JM, Mills JS, Saari GJ, Miettinen HM.  
Immunogenetics. 2008 Feb;60(2):83-93. Epub 2008 Feb 6.  
PMID: 18253729 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Formyl peptide receptor-1 activation enhances intestinal epithelial cell restitution through phosphatidylinositol 3-kinase-dependent activation of Rac1 and Cdc42.](#)
- 28. Babbin BA, Jesaitis AJ, Ivanov AI, Kelly D, Laukoetter M, Nava P, Parkos CA, Nusrat A.  
J Immunol. 2007 Dec 15;179(12):8112-21.  
PMID: 18056353 [PubMed - indexed for MEDLINE] **Free Article**
- [Functional polymorphisms of the FPR1 gene and aggressive periodontitis in Japanese.](#)
- 29. Gunji T, Onouchi Y, Nagasawa T, Katagiri S, Watanabe H, Kobayashi H, Arakawa S, Noguchi K, Hata A, Izumi Y, Ishikawa I.  
Biochem Biophys Res Commun. 2007 Dec 7;364(1):7-13. Epub 2007 Oct 2.  
PMID: 17927965 [PubMed - indexed for MEDLINE]
- [Pharmacological characterization of a novel nonpeptide antagonist for formyl peptide receptor-like 1.](#)
- 30. Zhou C, Zhang S, Nanamori M, Zhang Y, Liu Q, Li N, Sun M, Tian J, Ye PP, Cheng N, Ye RD, Wang MW.  
Mol Pharmacol. 2007 Oct;72(4):976-83. Epub 2007 Jul 25. Erratum in: Mol Pharmacol. 2007 Nov;72(5):1391.  
PMID: 17652444 [PubMed - indexed for MEDLINE] **Free Article**
- [Formyl peptide receptor expression in birds.](#)
- 31. Panaro MA, Cianciulli A, Lisi S, Sisto M, Acquafredda A, Mitolo V.  
Immunopharmacol Immunotoxicol. 2007;29(1):1-16.  
PMID: 17464763 [PubMed - indexed for MEDLINE]
- [Formyl peptide receptors: a promiscuous subfamily of G protein-coupled receptors controlling immune responses.](#)
- 32. Migeotte I, Communi D, Parmentier M.  
Cytokine Growth Factor Rev. 2006 Dec;17(6):501-19. Epub 2006 Nov 2. Review.  
PMID: 17084101 [PubMed - indexed for MEDLINE]
- [Analysis of a missense variant of the human N-formyl peptide receptor that is associated with agonist-independent beta-arrestin association and indices of inflammation.](#)
- 33. Bhattacharya M, Wang J, Ribeiro FM, Dixon SJ, Feldman RD, Hegele RA, Ferguson SS.  
Pharmacogenomics J. 2007 Jun;7(3):190-9. Epub 2006 Sep 5.  
PMID: 16953235 [PubMed - indexed for MEDLINE]
- [Differential production of leukotriene B4 or prostaglandin E2 by WKYMVm or serum amyloid A via formyl peptide receptor-like 1.](#)
- 34. Lee HY, Jo SH, Lee C, Baek SH, Bae YS.  
Biochem Pharmacol. 2006 Sep 28;72(7):860-8. Epub 2006 Jul 21.  
PMID: 16859643 [PubMed - indexed for MEDLINE]
- [Structural similarities between mRNA for the formyl peptide receptors and 18S rRNA.](#)
- 35. Panaro MA, Acquafredda A, Sisto M, Lisi S, Calvello R, Saccia M, Maffione AB, Mitolo V.  
Immunopharmacol Immunotoxicol. 2005;27(2):267-84.  
PMID: 16114510 [PubMed - indexed for MEDLINE]
- [Identification of functional domains in the formyl peptide receptor-like 1 for agonist-induced cell chemotaxis.](#)
- 36. Le Y, Ye RD, Gong W, Li J, Iribarren P, Wang JM.  
FEBS J. 2005 Feb;272(3):769-78.  
PMID: 15670157 [PubMed - indexed for MEDLINE] **Free Article**
- [Prolyl isomerases in yeast.](#)
- 37. Arevalo-Rodriguez M, Wu X, Hanes SD, Heitman J.  
Front Biosci. 2004 Sep 1;9:2420-46. Review.  
PMID: 15353296 [PubMed - indexed for MEDLINE]



38. [Activation of formyl peptide receptor-like 1 by WKYMVm induces serine phosphorylation of STAT3, which inhibits its tyrosine phosphorylation and nuclear translocation induced by hydrogen peroxide.](#)  
Jo EJ, Lee HY, Kim JI, Kang HK, Lee YN, Kwak JY, Bae YS.  
Life Sci. 2004 Sep 17;75(18):2217-32.  
PMID: 15325847 [PubMed - indexed for MEDLINE]
39. [An annexin 1 N-terminal peptide activates leukocytes by triggering different members of the formyl peptide receptor family.](#)  
Ernst S, Lange C, Wilbers A, Goebeler V, Gerke V, Rescher U.  
J Immunol. 2004 Jun 15;172(12):7669-76.  
PMID: 15187149 [PubMed - indexed for MEDLINE] **Free Article**
40. [Binding sites of amyloid beta-peptide in cell plasma membrane and implications for Alzheimer's disease.](#)  
Verdier Y, Penke B.  
Curr Protein Pept Sci. 2004 Feb;5(1):19-31. Review.  
PMID: 14965318 [PubMed - indexed for MEDLINE]
41. [Chemotaxis and calcium responses of phagocytes to formyl peptide receptor ligands is differentially regulated by cyclic ADP ribose.](#)  
Partida-Sánchez S, Iribarren P, Moreno-García ME, Gao JL, Murphy PM, Oppenheimer N, Wang JM, Lund FE.  
J Immunol. 2004 Feb 1;172(3):1896-906.  
PMID: 14734775 [PubMed - indexed for MEDLINE] **Free Article**
42. [Evaluation of human leukocyte N-formylpeptide receptor \(FPR1\) SNPs in aggressive periodontitis patients.](#)  
Zhang Y, Syed R, Uygur C, Pallos D, Gorry MC, Firatli E, Cortelli JR, VanDyke TE, Hart PS, Feingold E, Hart TC.  
Genes Immun. 2003 Jan;4(1):22-9.  
PMID: 12595898 [PubMed - indexed for MEDLINE]
43. [Cyclosporins: structure-activity relationships for the inhibition of the human FPR1 formylpeptide receptor.](#)  
Loor F, Tiberghien F, Wenandy T, Didier A, Traber R.  
J Med Chem. 2002 Oct 10;45(21):4613-28.  
PMID: 12361388 [PubMed - indexed for MEDLINE]
44. [Contrasting evolution of the human leukocyte N-formylpeptide receptor subtypes FPR and FPRL1R.](#)  
Sahagun-Ruiz A, Colla JS, Juhn J, Gao JL, Murphy PM, McDermott DH.  
Genes Immun. 2001 Oct;2(6):335-42.  
PMID: 11607790 [PubMed - indexed for MEDLINE] **Free Article**
45. [Cloning and expression analysis of a novel G-protein-coupled receptor selectively expressed on granulocytes.](#)  
Yousefi S, Cooper PR, Potter SL, Mueck B, Jarai G.  
J Leukoc Biol. 2001 Jun;69(6):1045-52.  
PMID: 11404393 [PubMed - indexed for MEDLINE] **Free Article**
46. [FAP1, a homologue of human transcription factor NF-X1, competes with rapamycin for binding to FKBP12 in yeast.](#)  
Kunz J, Loeschmann A, Deuter-Reinhard M, Hall MN.  
Mol Microbiol. 2000 Sep;37(6):1480-93. Erratum in: Mol Microbiol 2001 Feb;39(4):1107.  
PMID: 10998178 [PubMed - indexed for MEDLINE]
47. [The potent immunosuppressive cyclosporin FR901459 inhibits the human P-glycoprotein and formyl peptide receptor functions.](#)  
Tiberghien F, Wenandy T, Loor F.  
J Antibiot (Tokyo). 2000 May;53(5):509-15.  
PMID: 10908115 [PubMed - indexed for MEDLINE] **Free Article**
48. [Identification of surrogate agonists for the human FPRL-1 receptor by autocrine selection in yeast.](#)  
Klein C, Paul JI, Sauvé K, Schmidt MM, Arcangeli L, Ransom J, Trueheart J, Manfredi JP, Broach JR, Murphy AJ.  
Nat Biotechnol. 1998 Dec;16(13):1334-7.  
PMID: 9853614 [PubMed - indexed for MEDLINE]
49. [Differential expansion of the N-formylpeptide receptor gene cluster in human and mouse.](#)  
Gao JL, Chen H, Filie JD, Kozak CA, Murphy PM.  
Genomics. 1998 Jul 15;51(2):270-6.  
PMID: 9722950 [PubMed - indexed for MEDLINE]
50. [Molecular evolution of the N-formyl peptide and C5a receptors in non-human primates.](#)  
Alvarez V, Coto E, Setién F, González-Roces S, López-Larrea C.  
Immunogenetics. 1996;44(6):446-52.  
PMID: 8824156 [PubMed - indexed for MEDLINE]
51. [Differential expression of members of the N-formylpeptide receptor gene cluster in human phagocytes.](#)  
Durstin M, Gao JL, Tiffany HL, McDermott D, Murphy PM.  
Biochem Biophys Res Commun. 1994 May 30;201(1):174-9.  
PMID: 8198572 [PubMed - indexed for MEDLINE]



- [A physical map of two clusters containing the genes for six proinflammatory receptors.](#)
- 52. Alvarez V, Coto E, Setién F, López-Larrea C.  
Immunogenetics. 1994;40(2):100-3.  
PMID: 8026857 [PubMed - indexed for MEDLINE]
  
- [Sequence and organization of the human N-formyl peptide receptor-encoding gene.](#)
- 53. Murphy PM, Tiffany HL, McDermott D, Ahuja SK.  
Gene. 1993 Nov 15;133(2):285-90.  
PMID: 8224916 [PubMed - indexed for MEDLINE]
  
- [A structural homologue of the N-formyl peptide receptor. Characterization and chromosome mapping of a peptide chemoattractant receptor family.](#)
- 54. Murphy PM, Ozcelik T, Kenney RT, Tiffany HL, McDermott D, Francke U.  
J Biol Chem. 1992 Apr 15;267(11):7637-43.  
PMID: 1373134 [PubMed - indexed for MEDLINE]
  
- [Targets for cell cycle arrest by the immunosuppressant rapamycin in yeast.](#)
- 55. Heitman J, Movva NR, Hall MN.  
Science. 1991 Aug 23;253(5022):905-9.  
PMID: 1715094 [PubMed - indexed for MEDLINE]
  
- [FK 506-binding protein proline rotamase is a target for the immunosuppressive agent FK 506 in Saccharomyces cerevisiae.](#)
- 56. Heitman J, Movva NR, Hiestand PC, Hall MN.  
Proc Natl Acad Sci U S A. 1991 Mar 1;88(5):1948-52.  
PMID: 1705713 [PubMed - indexed for MEDLINE] **Free PMC Article**

## Results: 176

- [Keratosis palmoplantaris associated with early-onset periodontitis: a case report.](#)
  1. Gunashekhar M.  
West Indian Med J. 2010 Jan;59(1):96-9.  
PMID: 20931924 [PubMed - indexed for MEDLINE]
- [Treatment of patient with Papillon-Lefevre syndrome with short dental implants: a case report.](#)
  2. Etöz OA, Ulu M, Kesim B.  
Implant Dent. 2010 Oct;19(5):394-9.  
PMID: 20881810 [PubMed - indexed for MEDLINE]
- [Haim Munk syndrome and Papillon Lefevre syndrome--allelic mutations in cathepsin C with variation in phenotype.](#)
  3. Rai R, Thiagarajan S, Mohandas S, Natarajan K, Shanmuga Sekar C, Ramalingam S.  
Int J Dermatol. 2010 May;49(5):541-3.  
PMID: 20534088 [PubMed - indexed for MEDLINE]
- [Resolution of eosinophilic granuloma after minimal intervention. Case report and review of literature.](#)
  4. Chkoura A, El Alloussi M, Taleb B, El Wady W.  
N Y State Dent J. 2010 Mar;76(2):43-6. Review.  
PMID: 20441047 [PubMed - indexed for MEDLINE]
- [Novel cathepsin C mutation in a Brazilian family with Papillon-Lefèvre syndrome: case report and mutation update.](#)
  5. Pallos D, Acevedo AC, Mestrinho HD, Cordeiro I, Hart TC.  
J Dent Child (Chic). 2010 Jan-Apr;77(1):36-41.  
PMID: 20359428 [PubMed - indexed for MEDLINE]
- [A novel mutation in the cathepsin C gene in a Pakistani family with Papillon-Lefevre syndrome.](#)
  6. Kurban M, Cheng T, Wajid M, Kiuru M, Shimomura Y, Christiano AM.  
J Eur Acad Dermatol Venereol. 2010 Aug;24(8):967-9. Epub 2010 Mar 4.  
PMID: 20236208 [PubMed - indexed for MEDLINE]
- [Panoramic radiographic representation of progressive periodontal destruction in a family with six affected Papillon-Lefèvre siblings.](#)
  7. Ghaffar KA, Rose-Nelson C, Glascoe A, Brown RS.  
J Clin Pediatr Dent. 2009 Fall;34(1):61-5.  
PMID: 19953812 [PubMed - indexed for MEDLINE]
- [Papillon-lefevre syndrome with liver abscess.](#)
  8. Dhanawade SS, Shah SD, Kakade GM.  
Indian Pediatr. 2009 Aug;46(8):723-5.  
PMID: 19717864 [PubMed - indexed for MEDLINE] **Free Article**
- [Papillon-Lefèvre syndrome and malignant melanoma.](#)
  9. Cook GP.  
Dermatology. 2009;219(2):187-8. Epub 2009 Jun 9. No abstract available.  
PMID: 19506350 [PubMed - indexed for MEDLINE] **Free Article**
- [Papillon-Lefèvre syndrome with pyogenic liver abscess: case report focusing on radiological findings and review of the literature.](#)
  10. Tanaka I, Abe K, Shizukuishi T, Sakaguchi M, Aizawa T, Narata M, Takahashi M, Maebayashi T, Fujii M, Saito T, Furuhashi S, Okuhata Y.  
Acta Gastroenterol Belg. 2008 Oct-Dec;71(4):429-30. Review. No abstract available.  
PMID: 19317289 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome: a case report.](#)
  11. Motamedi MH, Lotfi A, Azizi T, Moshref M.  
Dent Today. 2009 Feb;28(2):102, 104-5; quiz 105, 96. No abstract available.  
PMID: 19275079 [PubMed - indexed for MEDLINE]
- [Prosthetic treatment of a patient with Papillon Lefevre syndrome.](#)
  12. Pietrokovski Y, Pietrokovski J, Zini A.  
Refuat Hapeh Vehashinayim. 2008 Nov;25(4):9-14, 71.  
PMID: 19263863 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome: a case report.](#)

13. Pradeep AR, Pai SB.  
N Y State Dent J. 2008 Nov;74(6):44-7. Review.  
PMID: 19195239 [PubMed - indexed for MEDLINE]
14. [Late-onset Papillon-Lefevre syndrome with pyogenic liver abscesses: report of one case.](#)  
Yazdanfar A, Farahnaki S.  
Int J Dermatol. 2009 Jan;48(1):76-8. No abstract available.  
PMID: 19126057 [PubMed - indexed for MEDLINE]
15. [Papillon-Lefevre syndrome: a case report.](#)  
Subramaniam P, Mathew S, Gupta KK.  
J Indian Soc Pedod Prev Dent. 2008 Dec;26(4):171-4.  
PMID: 19008627 [PubMed - indexed for MEDLINE] **Free Article**
16. [Novel CTSC mutations in a patient with Papillon-Lefèvre syndrome with recurrent pyoderma and minimal oral and palmoplantar involvement.](#)  
Castori M, Madonna S, Giannetti L, Floriddia G, Milioto M, Amato S, Castiglia D.  
Br J Dermatol. 2009 Apr;160(4):881-3. Epub 2008 Oct 20. No abstract available.  
PMID: 18945301 [PubMed - indexed for MEDLINE]
17. [Partial expression of Papillon-Lefèvre Syndrome.](#)  
Kothiwale SV, Mathur S.  
Indian J Dent Res. 2008 Jul-Sep;19(3):264-6.  
PMID: 18797107 [PubMed - indexed for MEDLINE] **Free Article**
18. [Novel p.M1T and recurrent p.G301S mutations in cathepsin C in a Japanese patient with Papillon-Lefèvre syndrome: implications for understanding the genotype/phenotype relationship.](#)  
Ochiai T, Nakano H, Rokunohe D, Akasaka E, Toyomaki Y, Mitsuhashi Y, Sawamura D.  
J Dermatol Sci. 2009 Jan;53(1):73-5. Epub 2008 Aug 23. No abstract available.  
PMID: 18723326 [PubMed - indexed for MEDLINE]
19. [Early diagnosis and treatment options for the periodontal problems in Papillon-Lefèvre syndrome: a literature review.](#)  
Ashri NY.  
J Int Acad Periodontol. 2008 Jul;10(3):81-6. Review.  
PMID: 18714933 [PubMed - indexed for MEDLINE]
20. [Papillon-Lefevre syndrome: Report of two cases in the same family.](#)  
Nagaveni NB, Suma R, Shashikiran ND, Subba Reddy VV.  
J Indian Soc Pedod Prev Dent. 2008 Jun;26(2):78-81.  
PMID: 18603734 [PubMed - indexed for MEDLINE] **Free Article**
21. [Intraoral findings of Papillon-Lefevre syndrome.](#)  
Canger EM, Celenk P, Devrim I, Yenisey M, Gunhan O.  
J Dent Child (Chic). 2008 Jan-Apr;75(1):99-103.  
PMID: 18505658 [PubMed - indexed for MEDLINE]
22. [\[Clinical images in gastroenterology. Pyogenic liver abscess with pleural complication and Papillón-Lefevre syndrome\].](#)  
Sánchez-Fernández P, Sánchez-Reyes K, Blanco-Benavides R.  
Rev Gastroenterol Mex. 2007 Jul-Sep;72(3):249. Spanish. No abstract available.  
PMID: 18402216 [PubMed - indexed for MEDLINE]
23. [Papillon-Lefèvre syndrome and malignant melanoma. A high incidence of melanoma development in Japanese palmoplantar keratoderma patients.](#)  
Nakajima K, Nakano H, Takiyoshi N, Rokunohe A, Ikenaga S, Aizu T, Kaneko T, Mitsuhashi Y, Sawamura D.  
Dermatology. 2008;217(1):58-62. Epub 2008 Apr 9. Review.  
PMID: 18401176 [PubMed - indexed for MEDLINE]
24. [Dilated cardiomyopathy and sudden death in a teenager with palmar-plantar keratosis \(occult Carvajal syndrome\).](#)  
Kolar AJ, Milroy CM, Day PF, Suvarna SK.  
J Forensic Leg Med. 2008 Apr;15(3):185-8. Epub 2007 Dec 3.  
PMID: 18313016 [PubMed - indexed for MEDLINE]
25. [Acitretin for Papillon-Lefevre syndrome in a five-year-old girl.](#)  
Balci DD, Serarslan G, Sangun O, Homan S.  
Indian J Dermatol Venereol Leprol. 2008 Jan-Feb;74(1):71-3. No abstract available.  
PMID: 18187837 [PubMed - indexed for MEDLINE] **Free Article**
26. [Papillon-lefevre syndrome with congenital hepatic fibrosis.](#)  
Genc G, Dursun H, Sarac A, Dalgic B.  
Mymensingh Med J. 2007 Jul;16(2 Suppl):S63-66.  
PMID: 17917635 [PubMed - indexed for MEDLINE]

- [Detection of an intragenic deletion expands the spectrum of CTSC mutations in Papillon-Lefèvre syndrome.](#)
- 27. Jouary T, Goizet C, Coupury I, Redonnet-Vernhet I, Levade T, Burgelin I, Toutain A, Delaporte E, Douillard C, Lacombe D, Taieb A, Arveiler B.  
J Invest Dermatol. 2008 Feb;128(2):322-5. Epub 2007 Oct 18.  
PMID: 17943190 [PubMed - indexed for MEDLINE] **Free Article**
- [Papillon-Lefevre syndrome: two case reports.](#)
- 28. Shah J, Goel S.  
Indian J Dent Res. 2007 Oct-Dec;18(4):210-3.  
PMID: 17938500 [PubMed - indexed for MEDLINE] **Free Article**
- [Combined therapy in a patient with Papillon-Lefèvre syndrome: a 13-year follow-up.](#)
- 29. Toygar HU, Kircelli C, Firat E, Guzeldemir E.  
J Periodontol. 2007 Sep;78(9):1819-24.  
PMID: 17760554 [PubMed - indexed for MEDLINE]
- [Failure to treat keratoderma in Papillon-Lefevre syndrome using photodynamic therapy.](#)
- 30. Fernández-Guarino M, Harto A, Jaén P.  
Eur J Dermatol. 2007 Sep-Oct;17(5):456-7. Epub 2007 Aug 2. No abstract available.  
PMID: 17673404 [PubMed - indexed for MEDLINE] **Free Article**
- [Aggressive periodontitis associated with Papillon-Lefèvre syndrome: report of a 14-year follow-up.](#)
- 31. de Freitas AC, Assed S, da Silva LA, Silva RA.  
Spec Care Dentist. 2007 May-Jun;27(3):95-100.  
PMID: 17658183 [PubMed - indexed for MEDLINE]
- [Novel mutations of cathepsin C gene in two Chinese patients with Papillon-Lefèvre syndrome.](#)
- 32. Yang Y, Bai X, Liu H, Li L, Cao C, Ge L.  
J Dent Res. 2007 Aug;86(8):735-8.  
PMID: 17652201 [PubMed - indexed for MEDLINE]
- [New lesions on the knees with palmoplantar keratoderma.](#)
- 33. Guldbakke KK, Millina C, Thompson TR.  
Cutis. 2007 Jan;79(1):55-6, 63.  
PMID: 17330622 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome: a highly-suspected case.](#)
- 34. Ikeshima A.  
J Oral Sci. 2006 Dec;48(4):257-60.  
PMID: 17220626 [PubMed - indexed for MEDLINE] **Free Article**
- [Periodontal therapy in siblings with Papillon-Lefèvre syndrome and tinea capitis: a report of two cases.](#)
- 35. Schacher B, Baron F, Ludwig B, Valesky E, Noack B, Eickholz P.  
J Clin Periodontol. 2006 Nov;33(11):829-36. Epub 2006 Sep 13.  
PMID: 16970621 [PubMed - indexed for MEDLINE]
- [Papillon Lefevre syndrome.](#)
- 36. Dhadke SV, Kulkarni PM, Dhadke VN, Deshpande NS, Wattamwar PR.  
J Assoc Physicians India. 2006 Mar;54:246-7.  
PMID: 16800355 [PubMed - indexed for MEDLINE]
- [Corneal involvement in Papillon-Lefèvre syndrome.](#)
- 37. Saatci P, Arli AO, Demir K, Saatci AO, Kavakçu S.  
J Pediatr Ophthalmol Strabismus. 2006 May-Jun;43(3):167-9.  
PMID: 16761638 [PubMed - indexed for MEDLINE]
- [A case of Papillon-Lefevre syndrome associated with xanthogranulomatous pyelonephritis and hepatitis.](#)
- 38. Mansur AT, Göktay F, Demirok N.  
J Dermatol. 2006 Jan;33(1):59-63.  
PMID: 16469088 [PubMed - indexed for MEDLINE]
- [A family with Papillon-Lefevre syndrome reveals a requirement for cathepsin C in granzyme B activation and NK cell cytolytic activity.](#)
- 39. Meade JL, de Wynter EA, Brett P, Sharif SM, Woods CG, Markham AF, Cook GP.  
Blood. 2006 May 1;107(9):3665-8. Epub 2006 Jan 12.  
PMID: 16410452 [PubMed - indexed for MEDLINE] **Free Article**
- [Clinical, genetic, and biochemical findings in two siblings with Papillon-Lefèvre Syndrome.](#)
- 40. Cagli NA, Hakki SS, Dursun R, Toy H, Gokalp A, Ryu OH, Hart PS, Hart TC.  
J Periodontol. 2005 Dec;76(12):2322-9.  
PMID: 16332247 [PubMed - indexed for MEDLINE]

- 41. [Papillon-Lefèvre syndrome with albinism: a review of the literature and report of 2 brothers.](#)  
Hattab FN, Amin WM.  
Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2005 Dec;100(6):709-16. Review.  
PMID: 16301152 [PubMed - indexed for MEDLINE]
- 42. [Papillon-Lefèvre syndrome: a successful outcome.](#)  
Ahuja V, Shin RH, Mudgil A, Nanda V, Schoor R.  
J Periodontol. 2005 Nov;76(11):1996-2001.  
PMID: 16274321 [PubMed - indexed for MEDLINE]
- 43. [Papillon-Lefèvre syndrome.](#)  
Javeria, Samiullah, Neelofar, Maryam.  
J Ayub Med Coll Abbottabad. 2005 Apr-Jun;17(2):85-7.  
PMID: 16092661 [PubMed - indexed for MEDLINE]
- 44. [Papillon-Lefèvre syndrome treated with acitretin.](#)  
Lee MR, Wong LC, Fischer GO.  
Australas J Dermatol. 2005 Aug;46(3):199-201.  
PMID: 16008657 [PubMed - indexed for MEDLINE]
- 45. [Psoriasiform plaques and periodontal infection--quiz case. Diagnosis: Papillon-Lefèvre syndrome.](#)  
Georgala S, Befon A, Georgala C.  
Arch Dermatol. 2005 Jun;141(6):779. No abstract available.  
PMID: 15967931 [PubMed - indexed for MEDLINE]
- 46. [Orthodontic treatment in a patient with Papillon-Lefèvre syndrome.](#)  
Lux CJ, Kugel B, Komposch G, Pohl S, Eickholz P.  
J Periodontol. 2005 Apr;76(4):642-50.  
PMID: 15857107 [PubMed - indexed for MEDLINE]
- 47. [A novel mutation of the cathepsin C gene in a thai family with Papillon-Lefevre syndrome.](#)  
Nitta H, Wara-Aswapati N, Lertsirivorakul J, Nakamura T, Yamamoto M, Izumi Y, Nakamura T, Ishikawa I.  
J Periodontol. 2005 Mar;76(3):492-6.  
PMID: 15857086 [PubMed - indexed for MEDLINE]
- 48. [A homozygous cathepsin C mutation associated with Haim-Munk syndrome.](#)  
Cury VF, Gomez RS, Costa JE, Friedman E, Boson W, De Marco L.  
Br J Dermatol. 2005 Feb;152(2):353-6.  
PMID: 15727652 [PubMed - indexed for MEDLINE]
- 49. [Ocular surface squamous neoplasia in Papillon-Lefevre syndrome.](#)  
Murthy R, Honavar SG, Vemuganti GK, Burman S, Naik M, Parathasaradhi A.  
Am J Ophthalmol. 2005 Jan;139(1):207-9.  
PMID: 15652859 [PubMed - indexed for MEDLINE]
- 50. [Coinheritance of two rare genodermatoses \(Papillon-Lefèvre syndrome and oculocutaneous albinism type 1\) in two families: a genetic study.](#)  
Hewitt C, Wu CL, Hattab FN, Amin W, Ghaffar KA, Toomes C, Sloan P, Read AP, James JA, Thakker NS.  
Br J Dermatol. 2004 Dec;151(6):1261-5.  
PMID: 15606524 [PubMed - indexed for MEDLINE]
- 51. [Papillon-Lefèvre syndrome: case report and review of the literature.](#)  
Janjua SA, Khachemoune A.  
Dermatol Online J. 2004 Jul 15;10(1):13. Review.  
PMID: 15347495 [PubMed - indexed for MEDLINE] **Free Article**
- 52. [Papillon-Lefèvre syndrome associated with pseudoainhum.](#)  
Mashhood AA, Humayun A, Saleem M, Arshi I.  
J Am Acad Dermatol. 2004 Aug;51(2 Suppl):S134-6. No abstract available.  
PMID: 15280834 [PubMed - indexed for MEDLINE]
- 53. [Papillon-Lefèvre syndrome: a report of two cases.](#)  
Patel S, Davidson LE.  
Int J Paediatr Dent. 2004 Jul;14(4):288-94.  
PMID: 15242386 [PubMed - indexed for MEDLINE]
- 54. [Papillon Lefevre syndrome.](#)  
Thomas S, Gummadapu S, Ahsan A, Pai KM.  
Saudi Med J. 2004 Jul;25(7):941-3.  
PMID: 15235704 [PubMed - indexed for MEDLINE]

- [Papillon-Lefèvre syndrome.](#)
- 55. Mahajan VK, Thakur NS, Sharma NL.  
Indian Pediatr. 2003 Dec;40(12):1197-200.  
PMID: 14722373 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Late-onset Papillon-Lefèvre syndrome without alteration of the cathepsin C gene.](#)
- 56. Pilger U, Hennies HC, Truschneegg A, Aberer E.  
J Am Acad Dermatol. 2003 Nov;49(5 Suppl):S240-3. Review.  
PMID: 14576640 [PubMed - indexed for MEDLINE]
  
- [Dental implants in a young patient with Papillon-Lefevre syndrome: a case report.](#)
- 57. Woo I, Brunner DP, Yamashita DD, Le BT.  
Implant Dent. 2003;12(2):140-4.  
PMID: 12861881 [PubMed - indexed for MEDLINE]
  
- [Pyogenic liver abscess and Papillon-Lefèvre syndrome: not a rare association.](#)
- 58. Almuneef M, Al Khenazian S, Al Ajaji S, Al-Anazi A.  
Pediatrics. 2003 Jan;111(1):e85-8. Review.  
PMID: 12509601 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Papillon-Lefèvre syndrome: the response to acitretin.](#)
- 59. Al-Khenazian S.  
Int J Dermatol. 2002 Dec;41(12):938-41.  
PMID: 12492996 [PubMed - indexed for MEDLINE]
  
- [Papillon-Lefevre syndrome: a report of two cases.](#)
- 60. Hegde R, Reddy R.  
J Indian Soc Pedod Prev Dent. 2002 Mar;20(1):9-11.  
PMID: 12435026 [PubMed - indexed for MEDLINE]
  
- [The presence of cytokine \(IL-8, IL-1alpha, IL-1beta\)-producing cells in inflamed gingival tissue from a patient manifesting Papillon-Lefevre syndrome\(PLS\).](#)
- 61. Kabashima H, Yoneda M, Nagata K, Nonaka K, Hirofujii T, Maeda K.  
Cytokine. 2002 May 7;18(3):121-6.  
PMID: 12126647 [PubMed - indexed for MEDLINE]
  
- [An unusual presentation of the Papillon-Lefevre syndrome as recurrent liver abscesses.](#)
- 62. Anuradha S, Agarwal SK, Singh NP, Gupta A, Chowdhury V.  
J Assoc Physicians India. 2002 Jul;50:974-6.  
PMID: 12126360 [PubMed - indexed for MEDLINE]
  
- [Papillon-Lefevre syndrome: a case report.](#)
- 63. Prachyapruit WO, Kullavanijaya P.  
J Dermatol. 2002 Jun;29(6):329-35.  
PMID: 12126066 [PubMed - indexed for MEDLINE]
  
- [Treatment of Papillon-Lefèvre syndrome periodontitis.](#)
- 64. Pacheco JJ, Coelho C, Salazar F, Contreras A, Slots J, Velazco CH.  
J Clin Periodontol. 2002 Apr;29(4):370-4.  
PMID: 11966936 [PubMed - indexed for MEDLINE]
  
- [Elevated hydroperoxide levels and antioxidant patterns in Papillon-Lefèvre syndrome.](#)
- 65. Battino M, Ferreiro MS, Bompadre S, Leone L, Mosca F, Bullon P.  
J Periodontol. 2001 Dec;72(12):1760-6.  
PMID: 11811514 [PubMed - indexed for MEDLINE]
  
- [Papillon-Lefèvre syndrome: serum immunoglobulin G \(IgG\) subclass antibody response to periodontopathic bacteria. A case report.](#)
- 66. Wara-aswapati N, Lertsirivorakul J, Nagasawa T, Kawashima Y, Ishikawa I.  
J Periodontol. 2001 Dec;72(12):1747-54.  
PMID: 11811512 [PubMed - indexed for MEDLINE]
  
- [Papillon-Lefevre syndrome: a case report of four affected siblings.](#)
- 67. Angel TA, Hsu S, Kornbleuth SI, Kornbleuth J, Kramer EM.  
J Am Acad Dermatol. 2002 Feb;46(2 Suppl Case Reports):S8-10.  
PMID: 11807457 [PubMed - indexed for MEDLINE]
  
- [Papillon Lefevre syndrome: management of a case.](#)
- 68. Nadkarni UM, Jawdekar AM, Damle SG, Sujan SG.  
J Indian Soc Pedod Prev Dent. 2001 Jun;19(2):61-6.  
PMID: 11692824 [PubMed - indexed for MEDLINE]

- 69. [Successful periodontal maintenance of a case with Papillon-Lefèvre syndrome: 12-year follow-up and review of the literature.](#)  
Wiebe CB, Häkkinen L, Putnins EE, Walsh P, Larjava HS.  
J Periodontol. 2001 Jun;72(6):824-30. Review.  
PMID: 11453246 [PubMed - indexed for MEDLINE]
- 70. [Atypical familial Papillon-Lefèvre syndrome.](#)  
Inalöz HS, Harman M, Akdeniz S, Inalöz SS, Isik AG.  
J Eur Acad Dermatol Venereol. 2001 Jan;15(1):48-50. Review.  
PMID: 11451323 [PubMed - indexed for MEDLINE]
- 71. [Combined mechanical and antibiotic periodontal therapy in a case of Papillon-Lefèvre syndrome.](#)  
Eickholz P, Kugel B, Pohl S, Näher H, Staehle HJ.  
J Periodontol. 2001 Apr;72(4):542-9.  
PMID: 11338309 [PubMed - indexed for MEDLINE]
- 72. [Papillon-Lefèvre syndrome with pyogenic hepatic abscess: a rare association.](#)  
Khandpur S, Reddy BS.  
Pediatr Dermatol. 2001 Jan-Feb;18(1):45-7.  
PMID: 11207971 [PubMed - indexed for MEDLINE]
- 73. [Osseointegrated implants in a patient with Papillon-Lefèvre syndrome. A 4 1/2-year follow up.](#)  
Ullbro C, Crossner CG, Lundgren T, Stålblad PA, Renvert S.  
J Clin Periodontol. 2000 Dec;27(12):951-4.  
PMID: 11140563 [PubMed - indexed for MEDLINE]
- 74. [Periodontal treatment of rapid progressive periodontitis in 2 siblings with Papillon-Lefèvre syndrome: 15-year follow-up.](#)  
De Vree H, Steenackers K, De Boever JA.  
J Clin Periodontol. 2000 May;27(5):354-60.  
PMID: 10847540 [PubMed - indexed for MEDLINE]
- 75. [A new family with Papillon-Lefèvre syndrome: effectiveness of etretinate treatment.](#)  
Siragusa M, Romano C, Batticane N, Batolo D, Schepis C.  
Cutis. 2000 Mar;65(3):151-5.  
PMID: 10738634 [PubMed - indexed for MEDLINE]
- 76. [A novel CD18 genomic deletion in a patient with severe leucocyte adhesion deficiency: a possible CD2/lymphocyte function-associated antigen-1 functional association in humans.](#)  
Allende LM, Hernández M, Corell A, García-Pérez MA, Varela P, Moreno A, Caragol I, García-Martín F, Guillén-Perales J, Olivé T, Español T, Arnaiz-Villena A.  
Immunology. 2000 Mar;99(3):440-50.  
PMID: 10712675 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 77. [Leukocyte functions in 2 cases of Papillon-Lefèvre syndrome.](#)  
Liu R, Cao C, Meng H, Tang Z.  
J Clin Periodontol. 2000 Jan;27(1):69-73.  
PMID: 10674964 [PubMed - indexed for MEDLINE]
- 78. [Combined systemic and local antimicrobial therapy of periodontal disease in Papillon-Lefèvre syndrome. A report of 4 cases.](#)  
Rüdiger S, Petersilka G, Flemmig TF.  
J Clin Periodontol. 1999 Dec;26(12):847-54. Review.  
PMID: 10599914 [PubMed - indexed for MEDLINE]
- 79. [Root resorption and signs of repair in Papillon-Lefèvre syndrome. A case study.](#)  
Rüdiger S, Berglundh T.  
Acta Odontol Scand. 1999 Aug;57(4):221-4. Review.  
PMID: 10540933 [PubMed - indexed for MEDLINE]
- 80. [Association of inflammatory pseudotumor of the liver and Papillon-Lefevre syndrome--case report.](#)  
Czauderna P, Sznurkowska K, Korzon M, Roszkiewicz A, Stoba C.  
Eur J Pediatr Surg. 1999 Oct;9(5):343-6.  
PMID: 10584199 [PubMed - indexed for MEDLINE]
- 81. [Microbiological features of Papillon-Lefèvre syndrome periodontitis.](#)  
Velazco CH, Coelho C, Salazar F, Contreras A, Slots J, Pacheco JJ.  
J Clin Periodontol. 1999 Sep;26(9):622-7.  
PMID: 10487314 [PubMed - indexed for MEDLINE]
- 82. [Papillon-Lefèvre syndrome: a case report.](#)  
Cooke L, Bonnett S, Briggs L.  
Dent Update. 1998 May;25(4):164-5.  
PMID: 9852821 [PubMed - indexed for MEDLINE]



- [Papillon-Lefèvre syndrome.](#)
- 83. Reyes VO, King-Ismael D, Abad-Venida L.  
Int J Dermatol. 1998 Apr;37(4):268-70. No abstract available.  
PMID: 9585898 [PubMed - indexed for MEDLINE]
- [Papillon-Lefevre syndrome: a case report and review of the literature.](#)
- 84. González JR, Chabrier L, Rodríguez RJ.  
P R Health Sci J. 1997 Sep;16(3):279-81. Review.  
PMID: 9431567 [PubMed - indexed for MEDLINE]
- [Follow-up of two cases of Papillon-Lefèvre syndrome and presentation of two new cases.](#)
- 85. Boutsis EA, Umeda M, Nagasawa T, Laosrisin N, Ishikawa I.  
Int J Periodontics Restorative Dent. 1997 Aug;17(4):334-47. Review.  
PMID: 9497724 [PubMed - indexed for MEDLINE]
- [Preservation of permanent teeth in a patient with Papillon-Lefèvre syndrome by professional tooth-cleaning.](#)
- 86. Kim JB, Morita M, Kusumoto M, Watanabe T, Takagi S, Nishijima K.  
ASDC J Dent Child. 1997 May-Jun;64(3):222-6. Review. No abstract available.  
PMID: 9262807 [PubMed - indexed for MEDLINE]
- [Clinical and immunological findings in 2 siblings with Papillon-Lefèvre syndrome.](#)
- 87. Firatli E, Gürel N, Efeoglu A, Badur S.  
J Periodontol. 1996 Nov;67(11):1210-5.  
PMID: 8959572 [PubMed - indexed for MEDLINE]
- [Microbiological and immunohistological findings in a patient with Papillon-Lefèvre syndrome.](#)
- 88. Kleinfelder JW, Topoll HH, Preus HR, Müller RF, Lange DE, Böcker W.  
J Clin Periodontol. 1996 Nov;23(11):1032-8.  
PMID: 8951633 [PubMed - indexed for MEDLINE]
- [Increased risk of pyogenic liver abscess in children with Papillon-Lefevre syndrome.](#)
- 89. Oğuzkurt P, Tanyel FC, Büyükpamukçu N, Hiçsönmez A.  
J Pediatr Surg. 1996 Jul;31(7):955-6.  
PMID: 8811566 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome. Reappraisal of etiology, clinical features and treatment. II. Oral rehabilitation using osseointegrated implants.](#)
- 90. Abdulwassie H, Dhanrajani PJ, Jiffry A.  
Indian J Dent Res. 1996 Apr-Jun;7(2):63-70. Review.  
PMID: 9495102 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome--successful treatment with a combination of retinoid and concurrent systematic periodontal therapy: case reports.](#)
- 91. Kressin S, Herforth A, Preis S, Wahn V, Lenard HG.  
Quintessence Int. 1995 Nov;26(11):795-803.  
PMID: 8628839 [PubMed - indexed for MEDLINE]
- [Dental treatment of Papillon-Lefèvre syndrome: 15-year follow-up.](#)
- 92. Tinanoff N, Tempro P, Maderazo EG.  
J Clin Periodontol. 1995 Aug;22(8):609-12.  
PMID: 8583017 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome associated early onset periodontitis: a review and case study.](#)
- 93. French D, Scott H, Overall CM.  
J Can Dent Assoc. 1995 May;61(5):432-8. Review.  
PMID: 7773869 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome: a review of the literature and report of 4 cases.](#)
- 94. Hattab FN, Rawashdeh MA, Yassin OM, al-Momani AS, al-Ubosi MM.  
J Periodontol. 1995 May;66(5):413-20. Review.  
PMID: 7623262 [PubMed - indexed for MEDLINE]
- [What syndrome is this? Papillon-Lefevre syndrome.](#)
- 95. Micali G, Bhatt R, Solomon LM.  
Pediatr Dermatol. 1994 Dec;11(4):354-7. No abstract available.  
PMID: 7899190 [PubMed - indexed for MEDLINE]
- [Clinical, bacteriological, and immunological examinations and the treatment process of two Papillon-Lefèvre syndrome patients.](#)
- 96. Ishikawa I, Umeda M, Laosrisin N.  
J Periodontol. 1994 Apr;65(4):364-71.  
PMID: 8195982 [PubMed - indexed for MEDLINE]



- 97. [Late onset Papillon-Lefèvre syndrome? A chromosomal, neutrophil function and microbiological study.](#)  
Bullon P, Pascual A, Fernandez-Novoa MC, Borobio MV, Muniain MA, Camacho F.  
J Clin Periodontol. 1993 Oct;20(9):662-7.  
PMID: 8227454 [PubMed - indexed for MEDLINE]
- 98. [Atypical Papillon-Lefèvre syndrome: keratosis palmoplantaris with periodontopathy.](#)  
Singh R, Nor M, Ghazali W.  
Int J Dermatol. 1993 Jun;32(6):450-2. No abstract available.  
PMID: 8320031 [PubMed - indexed for MEDLINE]
- 99. [A possible late onset variation of Papillon-Lefèvre syndrome: report of 3 cases.](#)  
Brown RS, Hays GL, Flaitz CM, O'Neill PA, Abramovitch K, White RR.  
J Periodontol. 1993 May;64(5):379-86.  
PMID: 8515368 [PubMed - indexed for MEDLINE]
- 100. [Manifestation of heterozygosity in Papillon-Lefèvre syndrome?](#)  
Kotzot D, Pfeiffer RA.  
Am J Med Genet. 1993 Apr 15;46(2):247. No abstract available.  
PMID: 8484419 [PubMed - indexed for MEDLINE]
- 101. [Papillon Lefevre syndrome: treatment of two cases with a clinical microbiological and histopathological investigation.](#)  
Eronat N, Ucar F, Kilinc G.  
J Clin Pediatr Dent. 1993 Winter;17(2):99-104.  
PMID: 8466848 [PubMed - indexed for MEDLINE]
- 102. [Neutrophil dysfunction in prepubertal periodontitis associated with Papillon-Lefèvre syndrome.](#)  
D'Angelo M, Margiotta V, Franco V, Agate V.  
Minerva Stomatol. 1992 Dec;41(12):591-6.  
PMID: 1301494 [PubMed - indexed for MEDLINE]
- 103. [Papillon-Lefèvre syndrome. Characterization of peripheral blood and gingival lymphocytes with monoclonal antibodies.](#)  
Celenigil H, Kansu E, Ruacan S, Eratalay K.  
J Clin Periodontol. 1992 Jul;19(6):392-7.  
PMID: 1353082 [PubMed - indexed for MEDLINE]
- 104. [Treatment of prepubertal periodontitis. A case report and discussion.](#)  
D'Angelo M, Margiotta V, Ammatuna P, Sammartano F.  
J Clin Periodontol. 1992 Mar;19(3):214-9.  
PMID: 1556251 [PubMed - indexed for MEDLINE]
- 105. [Importance of screening prepubescent children affected with periodontitis: Papillon-Lefèvre syndrome.](#)  
Watanabe K, Ortuzer O, Lambert LA, Punwani I, Andersen BR.  
Compendium. 1991 Nov;12(11):832, 834, 836 passim. No abstract available.  
PMID: 1810640 [PubMed - indexed for MEDLINE]
- 106. [Papillon-Lefèvre syndrome with acroosteolysis.](#)  
Trattner A, David M, Sandbank M.  
J Am Acad Dermatol. 1991 May;24(5 Pt 2):835-8.  
PMID: 2050850 [PubMed - indexed for MEDLINE]
- 107. [Periodontitis associated with Papillon-Lefèvre syndrome.](#)  
Bimstein E, Lustmann J, Sela MN, Neriah ZB, Soskolne WA.  
J Periodontol. 1990 Jun;61(6):373-7.  
PMID: 2164081 [PubMed - indexed for MEDLINE]
- 108. [\[Juvenile periodontopathies as a manifestation of an ectodermal abnormality\].](#)  
Rink B.  
Kinderarztl Prax. 1990 Mar;58(3):131-6. German.  
PMID: 2141375 [PubMed - indexed for MEDLINE]
- 109. [Papillon-Lefevre syndrome. A discussion of aetiology and a case report.](#)  
Glenwright HD, Rock WP.  
Br Dent J. 1990 Jan 6;168(1):27-9.  
PMID: 2137346 [PubMed - indexed for MEDLINE]
- 110. [Papillon-Lefèvre syndrome in four siblings treated with etretinate. A nine-year evaluation.](#)  
Kellum RE.  
Int J Dermatol. 1989 Nov;28(9):605-8.  
PMID: 2531126 [PubMed - indexed for MEDLINE]
- 111. [Hyperkeratosis palmoplantaris with premature periodontal destruction \(Papillon Lefevre syndrome\)--report of two cases.](#)

111. Ghandour I.  
East Afr Med J. 1989 Sep;66(9):615-9.  
PMID: 2532593 [PubMed - indexed for MEDLINE]
- [Long-term preservation of permanent teeth in a patient with Papillon-Lefèvre syndrome treated with etretinate.](#)
112. Gelmetti C, Nazzaro V, Cerri D, Fracasso L.  
Pediatr Dermatol. 1989 Sep;6(3):222-5.  
PMID: 2529483 [PubMed - indexed for MEDLINE]
- [Papillon-Lefevre syndrome: report of two brothers.](#)
113. Vassilopoulou A, Laskaris G.  
ASDC J Dent Child. 1989 Sep-Oct;56(5):388-91.  
PMID: 2527879 [PubMed - indexed for MEDLINE]
- [\[Papillon-Lefevre syndrome. Apropos of a case\].](#)
114. Ceballos A, Gonzalez M, Ceballos G, Toledano M.  
Rev Esp Estomatol. 1988 Nov-Dec;36(6):439-44. Spanish. No abstract available.  
PMID: 2978601 [PubMed - indexed for MEDLINE]
- [Treatment of rapidly destructive periodontitis in Papillon-Lefèvre syndrome. Laboratory and clinical observations.](#)
115. Preus HR.  
J Clin Periodontol. 1988 Nov;15(10):639-43.  
PMID: 2974049 [PubMed - indexed for MEDLINE]
- [Hyperkeratosis palmoplantaris \(Papillon-Lefèvre syndrome\). A case report.](#)
116. Kulasekara B.  
Trop Geogr Med. 1988 Jul;40(3):257-8.  
PMID: 2973165 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome. Ultrastructural study and successful treatment with acitretin.](#)
117. Nazzaro V, Blanchet-Bardon C, Mimoz C, Revuz J, Puissant A.  
Arch Dermatol. 1988 Apr;124(4):533-9.  
PMID: 2965550 [PubMed - indexed for MEDLINE]
- [Treatment of Papillon-Lefèvre syndrome with etretinate.](#)
118. Driban NE, Jung JR.  
J Am Acad Dermatol. 1988 Mar;18(3):583-4. No abstract available.  
PMID: 2965168 [PubMed - indexed for MEDLINE]
- [\[Keratosis palmoplantaris with periodontopathy \(Papillon-Lefèvre syndrome\) and inner ear deafness\].](#)
119. Hübner U, Menzel V.  
Dermatol Monatsschr. 1988;174(5):267-71. German. No abstract available.  
PMID: 2969833 [PubMed - indexed for MEDLINE]
- [Is etretinate dangerous in Papillon-Lefèvre syndrome?](#)
120. Tosti A, Manuzzi P, Bardazzi F, Costa A.  
Dermatologica. 1988;176(3):148-50.  
PMID: 2967778 [PubMed - indexed for MEDLINE]
- [Ultrastructure of the periodontal lesion in a case of Papillon-Lefèvre syndrome \(PLS\).](#)
121. Vrahopoulos TP, Barber P, Liakoni H, Newman HN.  
J Clin Periodontol. 1988 Jan;15(1):17-26.  
PMID: 2963033 [PubMed - indexed for MEDLINE]
- [Treatment of a patient with Papillon-Lefèvre syndrome. A case report.](#)
122. Lu HK, Lin CT, Kwan HW.  
J Periodontol. 1987 Nov;58(11):789-93.  
PMID: 2961877 [PubMed - indexed for MEDLINE]
- [Papillon Lefevre syndrome--a case report.](#)
123. Chawla HS, Dutta S.  
J Indian Soc Pedod Prev Dent. 1987 Mar;5(1):21-4. No abstract available.  
PMID: 2978419 [PubMed - indexed for MEDLINE]
- [Clinical management of prepubertal periodontitis in 2 siblings with Papillon-Lefèvre syndrome.](#)
124. Preus H, Gjermo P.  
J Clin Periodontol. 1987 Mar;14(3):156-60.  
PMID: 2951399 [PubMed - indexed for MEDLINE]
- [In vitro studies of monocyte function in two siblings with Papillon-Lefèvre syndrome.](#)
125. Preus HR, Mörländ B.

- Scand J Dent Res. 1987 Feb;95(1):59-64.  
PMID: 2951843 [PubMed - indexed for MEDLINE]
- [Papillon-Lefevre syndrome. A report of six cases in one family.](#)
126. Pareek SS, Al-Aska AK.  
Int J Dermatol. 1986 Dec;25(10):638-41.  
PMID: 2948927 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome. Report of two patients treated successfully with isotretinoin.](#)
127. Nguyen TQ, Greer KE, Fisher GB Jr, Cooper PH.  
J Am Acad Dermatol. 1986 Jul;15(1):46-9.  
PMID: 2941463 [PubMed - indexed for MEDLINE]
- [Papillon-Lefevre syndrome: pediatric dental management.](#)
128. Kamen S, Crespi P, Eisenbud L, Dolan T.  
J Pedod. 1986 Summer;10(4):356-64. No abstract available.  
PMID: 2980419 [PubMed - indexed for MEDLINE]
- [Treatment of the periodontal component of Papillon-Lefèvre syndrome.](#)
129. Tinanoff N, Tanzer JM, Korman KS, Maderazo EG.  
J Clin Periodontol. 1986 Jan;13(1):6-10.  
PMID: 2935561 [PubMed - indexed for MEDLINE]
- [Papillon-Lefevre syndrome: report of case.](#)
130. Joshi HN, Dayal PK, Kansagra PJ.  
ASDC J Dent Child. 1985 Nov-Dec;52(6):461-3. No abstract available.  
PMID: 2933435 [PubMed - indexed for MEDLINE]
- [\[Histologic study and clinical controls including preliminary treatment results in a case of Papillon-Lefèvre syndrome\].](#)
131. Löst C, Haubner C.  
Dtsch Zahnärztl Z. 1985 Jul;40(7):778-82. German. No abstract available.  
PMID: 2937627 [PubMed - indexed for MEDLINE]
- [Papillon-Lefevre syndrome.](#)
132. Kumar PM, Ranganathan C, Premalatha S, Rao NR, Abdul Razack EM, Zahra A.  
Indian Pediatr. 1985 Mar;22(3):244-6. No abstract available.  
PMID: 3161827 [PubMed - indexed for MEDLINE]
- [\[The Papillon-Lefevre syndrome \(keratosis palmoplantaris with periodontopathy\). Treatment with etretinate\].](#)
133. Wehrmann W, Traupe H, Happle R.  
Hautarzt. 1985 Mar;36(3):173-5. German.  
PMID: 3158626 [PubMed - indexed for MEDLINE]
- [Treatment of Papillon-Lefevre syndrome with chemotherapy: report of cases.](#)
134. Shapira J, Eidelman E, Fuks A, Hacham-Zadeh S.  
Spec Care Dentist. 1985 Mar-Apr;5(2):71-4. No abstract available.  
PMID: 3156430 [PubMed - indexed for MEDLINE]
- [Papillon-Lefevre syndrome: report of a case.](#)
135. Willett LM, Gabriel SA, Kozma C, Bottomley WK.  
J Oral Med. 1985 Jan-Mar;40(1):43-5. No abstract available.  
PMID: 3156224 [PubMed - indexed for MEDLINE]
- [Immunological alterations in a case of Papillon-Lefèvre syndrome with recurrent cutaneous infections.](#)
136. Borroni G, Pagani A, Carcaterra A, Pericoli R, Gabba P, Marconi M.  
Dermatologica. 1985;170(1):27-30.  
PMID: 3156059 [PubMed - indexed for MEDLINE]
- [Histopathological and ultrastructural findings in a case of Papillon-Lefèvre syndrome.](#)
137. Sloan P, Soames JV, Murray JJ, Jenkins WM.  
J Periodontol. 1984 Aug;55(8):482-5.  
PMID: 6237188 [PubMed - indexed for MEDLINE]
- [The Papillon-Lefèvre syndrome: neutrophil dysfunction with severe periodontal disease.](#)
138. Van Dyke TE, Taubman MA, Ebersole JL, Haffajee AD, Socransky SS, Smith DJ, Genco RJ.  
Clin Immunol Immunopathol. 1984 Jun;31(3):419-29.  
PMID: 6232030 [PubMed - indexed for MEDLINE]
- [Hyperkeratosis palmoplantaris with periodontosis. "Papillon-LeFevre syndrome". Report of three cases in the same family.](#)
139. Fayed NA, Nasif A, Younis AS, Ayoub AF.  
Egypt Dent J. 1984 Jan;30(1):77-84. No abstract available.

PMID: 6241143 [PubMed - indexed for MEDLINE]

- [\[Papillon-Lefèvre syndrome. Presentation of a case\].](#)
- 140. Reynaldo Arosemena M, Abdiel León R.  
Med Cutan Ibero Lat Am. 1984;12(3):245-9. Spanish.  
PMID: 6237237 [PubMed - indexed for MEDLINE]
- [History of periodontitis in a child with Papillon-Lefèvre syndrome. A case report.](#)
- 141. Rateitschak-Plüss EM, Schroeder HE.  
J Periodontol. 1984 Jan;55(1):35-46.  
PMID: 6229622 [PubMed - indexed for MEDLINE]
- [Behavior of neutrophilic granulocytes in a case of Papillon-Lefèvre syndrome.](#)
- 142. Schroeder HE, Seger RA, Keller HU, Rateitschak-Plüss EM.  
J Clin Periodontol. 1983 Nov;10(6):618-35.  
PMID: 6228567 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome.](#)
- 143. Landow RK, Cheung H, Bauer M.  
Int J Dermatol. 1983 Apr;22(3):177-9.  
PMID: 6222004 [PubMed - indexed for MEDLINE]
- [Papillon-LeFevre syndrome \(PLS\).](#)
- 144. Gupta JK, Bedi BM.  
J Indian Dent Assoc. 1983 Feb;55(2):65-9, 77. No abstract available.  
PMID: 6224860 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome. Report of a case treated with oral retinoid RO 10-9359.](#)
- 145. Bravo-Piris J, Aparicio M, Moran M, Armijo M.  
Dermatologica. 1983;166(2):97-103.  
PMID: 6221959 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome.](#)
- 146. Hathway R.  
Br Dent J. 1982 Nov 16;153(10):370-1. No abstract available.  
PMID: 6216904 [PubMed - indexed for MEDLINE]
- [Immunological and metabolic studies in two siblings with Papillon-Lefevre syndrome.](#)
- 147. Lyberg T.  
J Periodontal Res. 1982 Nov;17(6):563-8. No abstract available.  
PMID: 6219203 [PubMed - indexed for MEDLINE]
- [\[Functional anomalies of polymorphonuclears in Papillon-Lefèver disease \(author's transl\)\].](#)
- 148. Stalder JF, Torres M, Taraud D, Hakim J, Delaire J, Barrière H.  
Nouv Presse Med. 1982 Jun 12;11(28):2135-8. French.  
PMID: 6213931 [PubMed - indexed for MEDLINE]
- [Increased collagen synthesis by gingival fibroblasts derived from a Papillon-Lefèvre patient.](#)
- 149. Cheung HS, Landow RK, Bauer M.  
J Dent Res. 1982 Feb;61(2):378-81. No abstract available.  
PMID: 6460047 [PubMed - indexed for MEDLINE] **Free Article**
- [A clinical case history. Papillon-Lefevre disease.](#)
- 150. Torres EA.  
Rev Odontol P R. 1982 Feb-Apr;19(1):26-30. No abstract available.  
PMID: 6242879 [PubMed - indexed for MEDLINE]
- [Malignant melanoma and Papillon-Lefvre syndrome.](#)
- 151. Hacham-Zadeh S, Goldberg L.  
Arch Dermatol. 1982 Jan;118(1):2. No abstract available.  
PMID: 6460473 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome. A clinical and therapeutical contribution.](#)
- 152. Driban NE, Jung JR.  
Dermatologica. 1982;165(6):653-9.  
PMID: 6220930 [PubMed - indexed for MEDLINE]
- [\[Papillon-Lefèvre disease in two sisters\].](#)
- 153. Geormaneanu M, Ciofu C, Boboc G.  
Ann Genet. 1982;25(3):189-92. French. No abstract available.

PMID: 6215891 [PubMed - indexed for MEDLINE]

[\[Periodontitis with hyperkeratosis palmo-plantarias \(Papillon-Lefevre syndrome\): case report and revised bibliography\].](#)

154. Herrera BG, Muller E.  
Cent Estud Recur Odontol Nino. 1981 Aug;6(2):13-20. Spanish. No abstract available.  
PMID: 6210442 [PubMed - indexed for MEDLINE]

[Surgical correction of hyperkeratosis in the Papillon-Lefèvre syndrome.](#)

155. Peled IJ, Weinrauch L, Cohen HA, Wexler MR.  
J Dermatol Surg Oncol. 1981 Feb;7(2):142-3.  
PMID: 6452470 [PubMed - indexed for MEDLINE]

[Papillon-Lefevre syndrome with ocular nystagmus \(a case report\).](#)

156. Mhaiskar U, Kulkarni S, Shah MD.  
J Postgrad Med. 1980 Oct;26(4):267-8. No abstract available.  
PMID: 6453223 [PubMed - indexed for MEDLINE] **Free Article**

[Papillon-Lefèvre syndrome: a case report.](#)

157. Paghdiwala AF.  
J Periodontol. 1980 Oct;51(10):594-8.  
PMID: 6449589 [PubMed - indexed for MEDLINE]

[\[Case report of Papillon-Lefèvre syndrome\].](#)

158. Löst C, Bork K.  
Dtsch Zahnarztl Z. 1980 Jul;35(7):735-8. German. No abstract available.  
PMID: 6450675 [PubMed - indexed for MEDLINE]

[\[Papillon-Lefèvre syndrome. Report of a case with association of campto, clinodactylia and cranial anomalies\].](#)

159. Fonseca Capdevila E, Soto Melo J, Santamaría Solís L, Maza León P.  
Actas Dermosifiliogr. 1980 May-Jun;71(5-6):237-40. Spanish. No abstract available.  
PMID: 6451148 [PubMed - indexed for MEDLINE]

[\[Extrapalmoplantar skin symptoms and additional clinical, etiological and immunological aspects in particular, in Papillon-Lefevre syndrome\].](#)

160. Bork K, Löst C.  
Hautarzt. 1980 Apr;31(4):179-83. German.  
PMID: 6447126 [PubMed - indexed for MEDLINE]

[The Papillon-Lefèvre syndrome: keratosis palmoplantaris with periodontopathy. Report of a case and review of the cases in the literature.](#)

161. Haneke E.  
Hum Genet. 1979 Sep 2;51(1):1-35. Review.  
PMID: 159254 [PubMed - indexed for MEDLINE]

[\[Papillon-Lefèvre syndrome and recurrent infections\].](#)

162. Marandian MH, Foroozanfar N, Haghigat H, Saket S, Lessani M, Djafarian M.  
Arch Fr Pediatr. 1979 Sep-Oct;36(8):819-22. French.  
PMID: 161495 [PubMed - indexed for MEDLINE]

[Hyperkeratosis palmoplantaris with periodontitis \(Papillon-Lefevre syndrome\): report of three cases, two occurring in siblings.](#)

163. Prabhu SR, Daftary DK, Dholakia HM.  
J Oral Surg. 1979 Apr;37(4):262-6.  
PMID: 155154 [PubMed - indexed for MEDLINE]

[Papillon-Lefevre syndrome.](#)

164. Verma KC, Chaddha MK, Joshi RK.  
Int J Dermatol. 1979 Mar;18(2):146-9.  
PMID: 154478 [PubMed - indexed for MEDLINE]

[Papillon Lefevre syndrome \(report of two families\).](#)

165. Kaur S, Kumar B, Bedi TR, Sehgal S.  
Indian Pediatr. 1978 Jul;15(7):593-8. No abstract available.  
PMID: 152737 [PubMed - indexed for MEDLINE]

[Deficient phagocytic function in Papillon-Lefèvre syndrome.](#)

166. Djawari D.  
Dermatologica. 1978;156(3):189-92.  
PMID: 146625 [PubMed - indexed for MEDLINE]

[\[Papillon-lefèvre syndrome\].](#)

167. Krebs A.  
Dermatologica. 1978;156(1):59-63. German.  
PMID: 145384 [PubMed - indexed for MEDLINE]
- [Bacterial studies of the Papillon-Lefèvre syndrome.](#)
168. Newman M, Angel I, Karge H, Weiner M, Grinenko V, Schusterman L.  
J Dent Res. 1977 May;56(5):545. No abstract available.  
PMID: 141467 [PubMed - indexed for MEDLINE] **Free Article**
- [Papillon-Lefevre syndrome: report of two cases in the same family.](#)
169. Munford AG.  
J Am Dent Assoc. 1976 Jul;93(1):121-4.  
PMID: 132466 [PubMed - indexed for MEDLINE]
- [Papillon-Lefevre syndrome. Precocious periodontosis with epidermal lesions: review of literature and presentation of five cases.](#)
170. Elmostehy MR.  
Egypt Dent J. 1976 Apr;22(2):49-60. No abstract available.  
PMID: 147767 [PubMed - indexed for MEDLINE]
- [Odontohypophosphatasia: report of two cases.](#)
171. Brittain JM, Oldenburg TR, Burkes EJ Jr.  
ASDC J Dent Child. 1976 Mar-Apr;43(2):106-11.  
PMID: 767378 [PubMed - indexed for MEDLINE]
- [Papillon-Lefèvre syndrome: report of two familial cases.](#)
172. Bravo-Piris J, Villaron LG, Martinez C, Garcia-Perez A.  
Dermatologica. 1976;152(3):168-76.  
PMID: 133038 [PubMed - indexed for MEDLINE]
- [Papillon-Lefevre syndrome.](#)
173. Chopra SS.  
J Indian Dent Assoc. 1975 Nov;47(11):456-9. No abstract available.  
PMID: 147909 [PubMed - indexed for MEDLINE]
- [\[Ultrastructural odontological study of a case of Papillon-Lefèvre disease\].](#)
174. Kerebel B, Clergeau-Guerithault S, Brion M.  
Ann Anat Pathol (Paris). 1975 May-Jul;20(3):283-92. French.  
PMID: 174463 [PubMed - indexed for MEDLINE]
- [\[Papillon-Lefevre syndrome\].](#)
175. Dosseva D, Jontscheva A.  
ZWR. 1975 Apr 25;84(8):382-3. German. No abstract available.  
PMID: 125986 [PubMed - indexed for MEDLINE]
- [Increased susceptibility to infections in the Papillon-Lefèvre syndrome.](#)
176. Haneke E, Hornstein OP, Lex C.  
Dermatologica. 1975;150(5):283-6. No abstract available.  
PMID: 126879 [PubMed - indexed for MEDLINE]



Display Settings: Abstract

Limits Activated: Humans, Publication Date to 2010/12/1 [Change](#) | [Remove](#)

[Blood](#). 2006 May 1;107(9):3665-8. Epub 2006 Jan 12.

## A family with Papillon-Lefevre syndrome reveals a requirement for cathepsin C in granzyme B activation and NK cell cytolytic activity.

Meade JL, de Wynter EA, Brett P, Sharif SM, Woods CG, Markham AF, Cook GP.

Leeds Institute of Molecular Medicine, University of Leeds, St James's University Hospital, Leeds LS9 7TF, United Kingdom.

### Abstract

Activation of granzyme B, a key cytolytic effector molecule of natural killer (NK) cells, requires removal of an N-terminal pro-domain. In mice, cathepsin C is required for granzyme processing and normal NK cell cytolytic function, whereas in patients with Papillon-Lefèvre syndrome (PLS), loss-of-function mutations in cathepsin C do not affect lymphokine activated killer (LAK) cell function. Here we demonstrate that resting PLS NK cells do have a cytolytic defect and fail to induce the caspase cascade in target cells. NK cells from these patients contain inactive granzyme B, indicating that cathepsin C is required for granzyme B activation in unstimulated human NK cells. However, in vitro activation of PLS NK cells with interleukin-2 restores cytolytic function and granzyme B activity by a cathepsin C-independent mechanism. This is the first documented example of a human mutation affecting granzyme B activity and highlights the importance of cathepsin C in human NK cell function.

PMID: 16410452 [PubMed - indexed for MEDLINE] [Free Article](#)

[Publication Types](#), [MeSH Terms](#), [Substances](#)

[LinkOut](#) - more resources

Limits Activated: Humans, English, French, German, Spanish, Portuguese [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 31 articles](#) about **CTSC** gene function[CTSC](#) cathepsin C [Homo sapiens]ctsc in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 15 Gene records](#)

## Results: 12

- [Novel cathepsin C mutation in a Brazilian family with Papillon-Lefèvre syndrome: case report and mutation update.](#)
  1. Pallos D, Acevedo AC, Mestrinho HD, Cordeiro I, Hart TC.  
J Dent Child (Chic). 2010 Jan-Apr;77(1):36-41.  
PMID: 20359428 [PubMed - indexed for MEDLINE]
  
- [A novel mutation in the cathepsin C gene in a Pakistani family with Papillon-Lefevre syndrome.](#)
  2. Kurban M, Cheng T, Wajid M, Kiuru M, Shimomura Y, Christiano AM.  
J Eur Acad Dermatol Venereol. 2010 Aug;24(8):967-9. Epub 2010 Mar 4.  
PMID: 20236208 [PubMed - indexed for MEDLINE]
  
- [Novel CTSC mutations in a patient with Papillon-Lefèvre syndrome with recurrent pyoderma and minimal oral and palmoplantar involvement.](#)
  3. Castori M, Madonna S, Giannetti L, Floriddia G, Milioto M, Amato S, Castiglia D.  
Br J Dermatol. 2009 Apr;160(4):881-3. Epub 2008 Oct 20. No abstract available.  
PMID: 18945301 [PubMed - indexed for MEDLINE]
  
- [Detection of an intragenic deletion expands the spectrum of CTSC mutations in Papillon-Lefèvre syndrome.](#)
  4. Jouary T, Goizet C, Coupury I, Redonnet-Vernhet I, Levade T, Burgelin I, Toutain A, Delaporte E, Douillard C, Lacombe D, Taieb A, Arveiler B.  
J Invest Dermatol. 2008 Feb;128(2):322-5. Epub 2007 Oct 18.  
PMID: 17943190 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Novel mutations of cathepsin C gene in two Chinese patients with Papillon-Lefèvre syndrome.](#)
  5. Yang Y, Bai X, Liu H, Li L, Cao C, Ge L.  
J Dent Res. 2007 Aug;86(8):735-8.  
PMID: 17652201 [PubMed - indexed for MEDLINE]
  
- [Papillon-Lefèvre syndrome: a highly-suspected case.](#)
  6. Ikeshima A.  
J Oral Sci. 2006 Dec;48(4):257-60.  
PMID: 17220626 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Clinical, genetic, and biochemical findings in two siblings with Papillon-Lefèvre Syndrome.](#)
  7. Cagli NA, Hakki SS, Dursun R, Toy H, Gokalp A, Ryu OH, Hart PS, Hart TC.  
J Periodontol. 2005 Dec;76(12):2322-9.  
PMID: 16332247 [PubMed - indexed for MEDLINE]
  
- [Papillon-Lefèvre syndrome with albinism: a review of the literature and report of 2 brothers.](#)
  8. Hattab FN, Amin WM.  
Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2005 Dec;100(6):709-16. Review.  
PMID: 16301152 [PubMed - indexed for MEDLINE]
  
- [A novel mutation of the cathepsin C gene in a thai family with Papillon-Lefevre syndrome.](#)
  9. Nitta H, Wara-Aswapati N, Lertsirivorakul J, Nakamura T, Yamamoto M, Izumi Y, Nakamura T, Ishikawa I.  
J Periodontol. 2005 Mar;76(3):492-6.  
PMID: 15857086 [PubMed - indexed for MEDLINE]
  
- [A homozygous cathepsin C mutation associated with Haim-Munk syndrome.](#)
  10. Cury VF, Gomez RS, Costa JE, Friedman E, Boson W, De Marco L.  
Br J Dermatol. 2005 Feb;152(2):353-6.  
PMID: 15727652 [PubMed - indexed for MEDLINE]
  
- [Coinheritance of two rare genodermatoses \(Papillon-Lefèvre syndrome and oculocutaneous albinism type 1\) in two families: a](#)



11. [genetic study.](#)  
Hewitt C, Wu CL, Hattab FN, Amin W, Ghaffar KA, Toomes C, Sloan P, Read AP, James JA, Thakker NS.  
Br J Dermatol. 2004 Dec;151(6):1261-5.  
PMID: 15606524 [PubMed - indexed for MEDLINE]
  
- [New syndrome of hypotrichosis, striate palmoplantar keratoderma, acro-osteolysis and periodontitis not due to mutations in cathepsin C.](#)
12. [cathepsin C.](#)  
Van Steensel MA, Van Geel M, Steijlen PM.  
Br J Dermatol. 2002 Sep;147(3):575-81.  
PMID: 12207605 [PubMed - indexed for MEDLINE]

# PubMed

Search: "CEBPE protein, human" [Supplementary Concept]

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (47)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)Limits Activated: Humans, English [Change](#) | [Remove](#)

## Results: 47

- [C/EBP \$\epsilon\$  participates in all-trans retinoic acid induction of PI3Ky in U937 cells via an intronic matrix attachment region sequence.](#)
  1. Cai R, Cai X, Chen B, Xu W, Lu J.  
Mol Biol Rep. 2010 Dec;37(8):3795-800. Epub 2010 Jul 27.  
PMID: 20661648 [PubMed - indexed for MEDLINE]
- [Genetic variation and the risk of acute lymphoblastic leukemia.](#)
  2. Mullighan CG.  
Leuk Res. 2010 Oct;34(10):1269-70. Epub 2010 Jun 9. Review. No abstract available.  
PMID: 20538337 [PubMed - indexed for MEDLINE]
- [Genome-wide association study of childhood acute lymphoblastic leukemia in Korea.](#)
  3. Han S, Lee KM, Park SK, Lee JE, Ahn HS, Shin HY, Kang HJ, Koo HH, Seo JJ, Choi JE, Ahn YO, Kang D.  
Leuk Res. 2010 Oct;34(10):1271-4. Epub 2010 Feb 26.  
PMID: 20189245 [PubMed - indexed for MEDLINE]
- [Verification of the susceptibility loci on 7p12.2, 10q21.2, and 14q11.2 in precursor B-cell acute lymphoblastic leukemia of childhood.](#)
  4. Prasad RB, Hosking FJ, Vijayakrishnan J, Papaemmanuil E, Koehler R, Greaves M, Sheridan E, Gast A, Kinsey SE, Lightfoot T, Roman E, Taylor M, Pritchard-Jones K, Stanulla M, Schrappe M, Bartram CR, Houlston RS, Kumar R, Hemminki K.  
Blood. 2010 Mar 4;115(9):1765-7. Epub 2009 Dec 30.  
PMID: 20042726 [PubMed - indexed for MEDLINE]
- [Inherited susceptibility to pediatric acute lymphoblastic leukemia.](#)
  5. Levine RL.  
Nat Genet. 2009 Sep;41(9):957-8.  
PMID: 19710713 [PubMed - indexed for MEDLINE]
- [Loci on 7p12.2, 10q21.2 and 14q11.2 are associated with risk of childhood acute lymphoblastic leukemia.](#)
  6. Papaemmanuil E, Hosking FJ, Vijayakrishnan J, Price A, Olver B, Sheridan E, Kinsey SE, Lightfoot T, Roman E, Irving JA, Allan JM, Tomlinson IP, Taylor M, Greaves M, Houlston RS.  
Nat Genet. 2009 Sep;41(9):1006-10. Epub 2009 Aug 16.  
PMID: 19684604 [PubMed - indexed for MEDLINE]
- [Inhibition of mammalian target of rapamycin signaling potentiates the effects of all-trans retinoic acid to induce growth arrest and differentiation of human acute myelogenous leukemia cells.](#)
  7. Nishioka C, Ikezoe T, Yang J, Gery S, Koeffler HP, Yokoyama A.  
Int J Cancer. 2009 Oct 1;125(7):1710-20.  
PMID: 19507250 [PubMed - indexed for MEDLINE]
- [Inflammatory cytokine production by human neutrophils involves C/EBP transcription factors.](#)
  8. Cloutier A, Guindi C, Larivée P, Dubois CM, Amrani A, McDonald PP.  
J Immunol. 2009 Jan 1;182(1):563-71.  
PMID: 19109189 [PubMed - indexed for MEDLINE] **Free Article**
- [Translocation \(14;14\)\(q11;q32\) with simultaneous involvement of the IGH and CEBPE genes in B-lineage acute lymphoblastic leukemia.](#)
  9. Han Y, Xue Y, Zhang J, Wu Y, Pan J, Wang Y, Shen J, Dai H, Bai S.  
Cancer Genet Cytogenet. 2008 Dec;187(2):125-9.  
PMID: 19027493 [PubMed - indexed for MEDLINE]
- [Human C/EBP-epsilon activator and repressor isoforms differentially reprogram myeloid lineage commitment and differentiation.](#)
  10. Bedi R, Du J, Sharma AK, Gomes I, Ackerman SJ.  
Blood. 2009 Jan 8;113(2):317-27. Epub 2008 Oct 2.  
PMID: 18832658 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Blockade of mTOR signaling potentiates the ability of histone deacetylase inhibitor to induce growth arrest and differentiation of acute myelogenous leukemia cells.](#)
  11. Nishioka C, Ikezoe T, Yang J, Koeffler HP, Yokoyama A.  
Leukemia. 2008 Dec;22(12):2159-68. Epub 2008 Sep 11.  
PMID: 18784743 [PubMed - indexed for MEDLINE]

- 12. [C/EBPalpha and C/EBPvarepsilon induce the monocytic differentiation of myelomonocytic cells with the MLL-chimeric fusion gene.](#)  
Matsushita H, Nakajima H, Nakamura Y, Tsukamoto H, Tanaka Y, Jin G, Yabe M, Asai S, Ono R, Nosaka T, Sugita K, Morimoto A, Hayashi Y, Hotta T, Ando K, Miyachi H.  
Oncogene. 2008 Dec 4;27(53):6749-60. Epub 2008 Sep 8.  
PMID: 18776924 [PubMed - indexed for MEDLINE]
- 13. [Identification of a responsible promoter region and a key transcription factor, CCAAT/enhancer-binding protein epsilon, for up-regulation of PHGPx in HL60 cells stimulated with TNF alpha.](#)  
Hattori H, Imai H, Kirai N, Furuhashi K, Sato O, Konishi K, Nakagawa Y.  
Biochem J. 2007 Dec 1;408(2):277-86.  
PMID: 17688422 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 14. [PML-retinoic acid receptor alpha inhibits PML IV enhancement of PU.1-induced C/EBPepsilon expression in myeloid differentiation.](#)  
Yoshida H, Ichikawa H, Tagata Y, Katsumoto T, Ohnishi K, Akao Y, Naoe T, Pandolfi PP, Kitabayashi I.  
Mol Cell Biol. 2007 Aug;27(16):5819-34. Epub 2007 Jun 11.  
PMID: 17562868 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 15. [Expression of bactericidal/permeability-increasing protein requires C/EBP epsilon.](#)  
Tanaka M, Gombart AF, Koeffler HP, Shiohara M.  
Int J Hematol. 2007 May;85(4):304-11.  
PMID: 17483073 [PubMed - indexed for MEDLINE]
- 16. [ATF4 differentially regulates transcriptional activation of myeloid-specific genes by C/EBPepsilon and C/EBPalpha.](#)  
Gombart AF, Grewal J, Koeffler HP.  
J Leukoc Biol. 2007 Jun;81(6):1535-47. Epub 2007 Mar 8.  
PMID: 17347301 [PubMed - indexed for MEDLINE] **Free Article**
- 17. [Modulation of DNA binding properties of CCAAT/enhancer binding protein epsilon by heterodimer formation and interactions with NFKappaB pathway.](#)  
Chumakov AM, Silla A, Williamson EA, Koeffler HP.  
Blood. 2007 May 15;109(10):4209-19. Epub 2007 Jan 25.  
PMID: 17255362 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 18. [Growth factor independence-1 \(Gfi-1\) plays a role in mediating specific granule deficiency \(SGD\) in a patient lacking a gene-inactivating mutation in the C/EBPepsilon gene.](#)  
Khanna-Gupta A, Sun H, Zibello T, Lee HM, Dahl R, Boxer LA, Berliner N.  
Blood. 2007 May 15;109(10):4181-90. Epub 2007 Jan 23.  
PMID: 17244686 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 19. [Human resistin is a systemic immune-derived proinflammatory cytokine targeting both leukocytes and adipocytes.](#)  
Nagaev I, Bokarewa M, Tarkowski A, Smith U.  
PLoS One. 2006 Dec 20;1:e31.  
PMID: 17183659 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 20. [Promotive effect of C/EBPepsilon overexpression on differentiation of human myelomonocytic leukemia cell line U-937.](#)  
Cai R, Dai BB, Li K, Wang HJ, Xu WR, Wang JM, Lu J.  
Ai Zheng. 2006 Nov;25(11):1368-73.  
PMID: 17094903 [PubMed - indexed for MEDLINE] **Free Article**
- 21. [Inhibition of monocytic differentiation by phosphorylation-deficient Stat1 is associated with impaired expression of Stat2, ICSBP/IRF8 and C/EBPepsilon.](#)  
Dimberg A, Kårehed K, Nilsson K, Oberg F.  
Scand J Immunol. 2006 Sep;64(3):271-9.  
PMID: 16918696 [PubMed - indexed for MEDLINE]
- 22. [CCAAT/enhancer binding proteins alpha and epsilon cooperate with all-trans retinoic acid in therapy but differ in their antileukemic activities.](#)  
Lee YJ, Jones LC, Timchenko NA, Perrotti D, Tenen DG, Kogan SC.  
Blood. 2006 Oct 1;108(7):2416-9. Epub 2006 Jun 20.  
PMID: 16788101 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 23. [Enhancement of caffeic acid phenethyl ester on all-trans retinoic acid-induced differentiation in human leukemia HL-60 cells.](#)  
Kuo HC, Kuo WH, Lee YJ, Wang CJ, Tseng TH.  
Toxicol Appl Pharmacol. 2006 Oct 1;216(1):80-8.  
PMID: 16766008 [PubMed - indexed for MEDLINE]
- 24. [All-trans retinoic acid-induced expression of bactericidal/permeability-increasing protein \(BPI\) in human myeloid cells correlates to binding of C/EBPbeta and C/EBPepsilon to the BPI promoter.](#)  
Lennartsson A, Vidovic K, Pass MB, Cowland JB, Gullberg U.  
J Leukoc Biol. 2006 Jul;80(1):196-203. Epub 2006 May 9.  
PMID: 16684888 [PubMed - indexed for MEDLINE] **Free Article**

- [Human neutrophil collagenase expression is C/EBP-dependent during myeloid development.](#)
- 25. Khanna-Gupta A, Zibello T, Idone V, Sun H, Lekstrom-Himes J, Berliner N.  
Exp Hematol. 2005 Jan;33(1):42-52.  
PMID: 15661397 [PubMed - indexed for MEDLINE]
- [Retinoic acid regulates C/EBP homologous protein expression \(CHOP\), which negatively regulates myeloid target genes.](#)
- 26. Gery S, Park DJ, Vuong PT, Chih DY, Lemp N, Koeffler HP.  
Blood. 2004 Dec 15;104(13):3911-7. Epub 2004 Aug 12.  
PMID: 15308577 [PubMed - indexed for MEDLINE] **Free Article**
- [Induction of differentiation of retinoic acid-resistant acute promyelocytic leukemia cells by the combination of all-trans retinoic acid and granulocyte colony-stimulating factor.](#)
- 27. Higuchi T, Kizaki M, Omine M.  
Leuk Res. 2004 May;28(5):525-32.  
PMID: 15068906 [PubMed - indexed for MEDLINE]
- [Identification of murine and human XCP1 genes as C/EBP-epsilon-dependent members of FIZZ/Resistin gene family.](#)
- 28. Chumakov AM, Kubota T, Walter S, Koeffler HP.  
Oncogene. 2004 Apr 22;23(19):3414-25.  
PMID: 15064728 [PubMed - indexed for MEDLINE]
- [C/EBPepsilon interacts with retinoblastoma and E2F1 during granulopoiesis.](#)
- 29. Gery S, Gombart AF, Fung YK, Koeffler HP.  
Blood. 2004 Feb 1;103(3):828-35. Epub 2003 Aug 28.  
PMID: 12947005 [PubMed - indexed for MEDLINE] **Free Article**
- [Chromatin immunoprecipitation \(ChIP\) studies indicate a role for CCAAT enhancer binding proteins alpha and epsilon \(C/EBP alpha and C/EBP epsilon\) and CDP/cut in myeloid maturation-induced lactoferrin gene expression.](#)
- 30. Khanna-Gupta A, Zibello T, Sun H, Gaines P, Berliner N.  
Blood. 2003 May 1;101(9):3460-8. Epub 2003 Jan 9.  
PMID: 12522000 [PubMed - indexed for MEDLINE] **Free Article**
- [Regulation of neutrophil and eosinophil secondary granule gene expression by transcription factors C/EBP epsilon and PU.1.](#)
- 31. Gombart AF, Kwok SH, Anderson KL, Yamaguchi Y, Torbett BE, Koeffler HP.  
Blood. 2003 Apr 15;101(8):3265-73. Epub 2002 Dec 19.  
PMID: 12515729 [PubMed - indexed for MEDLINE] **Free Article**
- [CCAAT/Enhancer binding proteins repress the leukemic phenotype of acute myeloid leukemia.](#)
- 32. Truong BT, Lee YJ, Lodie TA, Park DJ, Perrotti D, Watanabe N, Koeffler HP, Nakajima H, Tenen DG, Kogan SC.  
Blood. 2003 Feb 1;101(3):1141-8. Epub 2002 Oct 3.  
PMID: 12393450 [PubMed - indexed for MEDLINE] **Free Article**
- [Novel combinatorial interactions of GATA-1, PU.1, and C/EBPepsilon isoforms regulate transcription of the gene encoding eosinophil granule major basic protein.](#)
- 33. Du J, Stankiewicz MJ, Liu Y, Xi Q, Schmitz JE, Lekstrom-Himes JA, Ackerman SJ.  
J Biol Chem. 2002 Nov 8;277(45):43481-94. Epub 2002 Aug 28.  
PMID: 12202480 [PubMed - indexed for MEDLINE] **Free Article**
- [Macrophage functional maturation and cytokine production are impaired in C/EBP epsilon-deficient mice.](#)
- 34. Tavor S, Vuong PT, Park DJ, Gombart AF, Cohen AH, Koeffler HP.  
Blood. 2002 Mar 1;99(5):1794-801.  
PMID: 11861297 [PubMed - indexed for MEDLINE] **Free Article**
- [Neutrophil specific granule deficiency and mutations in the gene encoding transcription factor C/EBP\(epsilon\).](#)
- 35. Gombart AF, Koeffler HP.  
Curr Opin Hematol. 2002 Jan;9(1):36-42. Review.  
PMID: 11753076 [PubMed - indexed for MEDLINE]
- [The role of C/EBP\(epsilon\) in the terminal stages of granulocyte differentiation.](#)
- 36. Lekstrom-Himes JA.  
Stem Cells. 2001;19(2):125-33. Review.  
PMID: 11239167 [PubMed - indexed for MEDLINE] **Free Article**
- [Molecular analysis of the mouse S100A9 gene and evidence that the myeloid specific transcription factor C/EBPepsilon is not required for the regulation of the S100A9/A8 gene expression in neutrophils.](#)
- 37. Nacken W, Lekstrom-Himes JA, Sorg C, Manitz MP.  
J Cell Biochem. 2001;80(4):606-16.  
PMID: 11169745 [PubMed - indexed for MEDLINE]

- 38. [The PPR motif - a TPR-related motif prevalent in plant organellar proteins.](#)  
Small ID, Peeters N.  
Trends Biochem Sci. 2000 Feb;25(2):46-7. No abstract available.  
PMID: 10664580 [PubMed - indexed for MEDLINE]
- 39. [C/EBPepsilon directly interacts with the DNA binding domain of c-myc and cooperatively activates transcription of myeloid promoters.](#)  
Verbeek W, Gombart AF, Chumakov AM, Müller C, Friedman AD, Koeffler HP.  
Blood. 1999 May 15;93(10):3327-37.  
PMID: 10233885 [PubMed - indexed for MEDLINE] **Free Article**
- 40. [A short conserved motif is required for repressor domain function in the myeloid-specific transcription factor CCAAT/enhancer-binding protein epsilon.](#)  
Angerer ND, Du Y, Nalbant D, Williams SC.  
J Biol Chem. 1999 Feb 12;274(7):4147-54.  
PMID: 9933609 [PubMed - indexed for MEDLINE] **Free Article**
- 41. [Assignment1 of CSRP1 encoding the LIM domain protein CRP1, to human chromosome 1q32 by fluorescence in situ hybridization.](#)  
Erdel M, Weiskirchen R.  
Cytogenet Cell Genet. 1998;83(1-2):10-1. No abstract available.  
PMID: 9925910 [PubMed - indexed for MEDLINE]
- 42. [CCAAT/enhancer binding protein epsilon is preferentially up-regulated during granulocytic differentiation and its functional versatility is determined by alternative use of promoters and differential splicing.](#)  
Yamanaka R, Kim GD, Radomska HS, Lekstrom-Himes J, Smith LT, Antonson P, Tenen DG, Xanthopoulos KG.  
Proc Natl Acad Sci U S A. 1997 Jun 10;94(12):6462-7.  
PMID: 9177240 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 43. [Cloning of the novel human myeloid-cell-specific C/EBP-epsilon transcription factor.](#)  
Chumakov AM, Grillier I, Chumakova E, Chih D, Slater J, Koeffler HP.  
Mol Cell Biol. 1997 Mar;17(3):1375-86.  
PMID: 9032264 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 44. [C/EBP proteins contain nuclear localization signals imbedded in their basic regions.](#)  
Williams SC, Angerer ND, Johnson PF.  
Gene Expr. 1997;6(6):371-85.  
PMID: 9495318 [PubMed - indexed for MEDLINE]
- 45. [A novel human CCAAT/enhancer binding protein gene, C/EBPepsilon, is expressed in cells of lymphoid and myeloid lineages and is localized on chromosome 14q11.2 close to the T-cell receptor alpha/delta locus.](#)  
Antonson P, Stellan B, Yamanaka R, Xanthopoulos KG.  
Genomics. 1996 Jul 1;35(1):30-8.  
PMID: 8661101 [PubMed - indexed for MEDLINE]
- 46. [Mouse chromosomal location of the CCAAT/enhancer binding proteins C/EBP beta \(Cebpb\), C/EBP delta \(Cebpd\), and CRP1 \(Cebpe\).](#)  
Jenkins NA, Gilbert DJ, Cho BC, Strobel MC, Williams SC, Copeland NG, Johnson PF.  
Genomics. 1995 Jul 20;28(2):333-6.  
PMID: 8530045 [PubMed - indexed for MEDLINE]
- 47. [A family of C/EBP-related proteins capable of forming covalently linked leucine zipper dimers in vitro.](#)  
Williams SC, Cantwell CA, Johnson PF.  
Genes Dev. 1991 Sep;5(9):1553-67.  
PMID: 1884998 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: Neutrophil-specific granule deficiency

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (23)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)Limits Activated: Humans, English [Change](#) | [Remove](#)

## Results: 23

- [Disorders of neutrophil function: an overview.](#)
  1. Dinauer MC.  
Methods Mol Biol. 2007;412:489-504. Review.  
PMID: 18453130 [PubMed - indexed for MEDLINE]
  
- [Expression of bactericidal/permeability-increasing protein requires C/EBP epsilon.](#)
  2. Tanaka M, Gombart AF, Koeffler HP, Shiohara M.  
Int J Hematol. 2007 May;85(4):304-11.  
PMID: 17483073 [PubMed - indexed for MEDLINE]
  
- [Growth factor independence-1 \(Gfi-1\) plays a role in mediating specific granule deficiency \(SGD\) in a patient lacking a gene-inactivating mutation in the C/EBPepsilon gene.](#)
  3. Khanna-Gupta A, Sun H, Zibello T, Lee HM, Dahl R, Boxer LA, Berliner N.  
Blood. 2007 May 15;109(10):4181-90. Epub 2007 Jan 23.  
PMID: 17244686 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
  
- [Intractable diarrhoea of infancy caused by neutrophil specific granule deficiency and cured by stem cell transplantation.](#)
  4. Wynn RF, Sood M, Theilgaard-Mönch K, Jones CJ, Gombart AF, Gharib M, Koeffler HP, Borregaard N, Arkwright PD.  
Gut. 2006 Feb;55(2):292-3. No abstract available.  
PMID: 16407388 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
  
- [Aberrant expression of neutrophil and macrophage-related genes in a murine model for human neutrophil-specific granule deficiency.](#)
  5. Gombart AF, Krug U, O'Kelly J, An E, Vegesna V, Koeffler HP.  
J Leukoc Biol. 2005 Nov;78(5):1153-65. Epub 2005 Oct 4.  
PMID: 16204633 [PubMed - indexed for MEDLINE] [Free Article](#)
  
- [GTP-dependent secretion from neutrophils is regulated by Cdk5.](#)
  6. Rosales JL, Ernst JD, Hallows J, Lee KY.  
J Biol Chem. 2004 Dec 24;279(52):53932-6. Epub 2004 Oct 18.  
PMID: 15492003 [PubMed - indexed for MEDLINE] [Free Article](#)
  
- [Phenotypic and functional alterations of peripheral blood monocytes in neutrophil-specific granule deficiency.](#)
  7. Shiohara M, Gombart AF, Sekiguchi Y, Hidaka E, Ito S, Yamazaki T, Koeffler HP, Komiyama A.  
J Leukoc Biol. 2004 Feb;75(2):190-7. Epub 2003 Oct 23.  
PMID: 14576362 [PubMed - indexed for MEDLINE] [Free Article](#)
  
- [White blood cell defects: molecular discoveries and clinical management.](#)
  8. Uzel G, Holland SM.  
Curr Allergy Asthma Rep. 2002 Sep;2(5):385-91. Review.  
PMID: 12165204 [PubMed - indexed for MEDLINE]
  
- [Neutrophil specific granule deficiency and mutations in the gene encoding transcription factor C/EBP\(epsilon\).](#)
  9. Gombart AF, Koeffler HP.  
Curr Opin Hematol. 2002 Jan;9(1):36-42. Review.  
PMID: 11753076 [PubMed - indexed for MEDLINE]
  
- [C/EBP epsilon mediates myeloid differentiation and is regulated by the CCAAT displacement protein \(CDP/cut\).](#)
  10. Khanna-Gupta A, Zibello T, Sun H, Lekstrom-Himes J, Berliner N.  
Proc Natl Acad Sci U S A. 2001 Jul 3;98(14):8000-5.  
PMID: 11438745 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
  
- [Neutrophil-specific granule deficiency: homozygous recessive inheritance of a frameshift mutation in the gene encoding transcription factor CCAAT/enhancer binding protein-epsilon.](#)
  11. Gombart AF, Shiohara M, Kwok SH, Agematsu K, Komiyama A, Koeffler HP.  
Blood. 2001 May 1;97(9):2561-7.  
PMID: 11313242 [PubMed - indexed for MEDLINE] [Free Article](#)
  
- [Deficiency of the specific granule proteins, R-binder/transcobalamin I and lactoferrin, in plasma and saliva: a new disorder.](#)
  12. Lin JC, Borregaard N, Liebman HA, Carmel R.  
Am J Med Genet. 2001 Apr 22;100(2):145-51.  
PMID: 11298376 [PubMed - indexed for MEDLINE]

- [The role of C/EBP\(epsilon\) in the terminal stages of granulocyte differentiation.](#)
- 13. Lekstrom-Himes JA.  
Stem Cells. 2001;19(2):125-33. Review.  
PMID: 11239167 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Neutrophil-specific granule deficiency results from a novel mutation with loss of function of the transcription factor CCAAT/enhancer binding protein epsilon.](#)
- 14. Lekstrom-Himes JA, Dorman SE, Kopar P, Holland SM, Gallin JI.  
J Exp Med. 1999 Jun 7;189(11):1847-52.  
PMID: 10359588 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [A marked decrease in defensin mRNA in the only case of congenital neutrophil-specific granule deficiency reported in Japan.](#)
- 15. Tamura A, Agematsu K, Mori T, Kawai H, Kuratsuji T, Shimane M, Tani K, Asano S, Komiyama A.  
Int J Hematol. 1994 Feb;59(2):137-42.  
PMID: 8018907 [PubMed - indexed for MEDLINE]
  
- [Neutrophil-specific granule deficiency includes eosinophils.](#)
- 16. Rosenberg HF, Gallin JI.  
Blood. 1993 Jul 1;82(1):268-73.  
PMID: 8324226 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Correlation of messenger RNA levels with protein defects in specific granule deficiency.](#)
- 17. Johnston JJ, Boxer LA, Berliner N.  
Blood. 1992 Oct 15;80(8):2088-91.  
PMID: 1327289 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Unique human neutrophil populations are defined by monoclonal antibody ED12F8C10.](#)
- 18. Brown CC, Malech HL, Jacobson RJ, Shrimpton CF, Beverly PC, Segal AW, Gallin JI.  
Cell Immunol. 1991 Jan;132(1):102-14.  
PMID: 1829650 [PubMed - indexed for MEDLINE]
  
- [Selective defect in myeloid cell lactoferrin gene expression in neutrophil specific granule deficiency.](#)
- 19. Lomax KJ, Gallin JI, Rotrosen D, Raphael GD, Kaliner MA, Benz EJ Jr, Boxer LA, Malech HL.  
J Clin Invest. 1989 Feb;83(2):514-9.  
PMID: 2536400 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Endogenous inhibitor of protein kinase C: association with human peripheral blood neutrophils but not with specific granule-deficient neutrophils or cytoplasts.](#)
- 20. Balazovich KJ, Smolen JE, Boxer LA.  
J Immunol. 1986 Sep 1;137(5):1665-73.  
PMID: 3462245 [PubMed - indexed for MEDLINE]
  
- [Evidence for distinct intracellular pools of receptors for C3b and C3bi in human neutrophils.](#)
- 21. O'Shea JJ, Brown EJ, Seligmann BE, Metcalf JA, Frank MM, Gallin JI.  
J Immunol. 1985 Apr;134(4):2580-7.  
PMID: 3156186 [PubMed - indexed for MEDLINE]
  
- [Neutrophil specific granule deficiency.](#)
- 22. Gallin JI.  
Annu Rev Med. 1985;36:263-74. Review.  
PMID: 3888052 [PubMed - indexed for MEDLINE]
  
- [Human neutrophil-specific granule deficiency: a model to assess the role of neutrophil-specific granules in the evolution of the inflammatory response.](#)
- 23. Gallin JI, Fletcher MP, Seligmann BE, Hoffstein S, Cehrs K, Mounessa N.  
Blood. 1982 Jun;59(6):1317-29.  
PMID: 7044447 [PubMed - indexed for MEDLINE] **Free Article**



## Results: 113

- [Do ribosomopathies explain some cases of common variable immunodeficiency?](#)
  1. Khan S, Pereira J, Darbyshire PJ, Holding S, Doré PC, Sewell WA, Huissoon A. Clin Exp Immunol. 2011 Jan;163(1):96-103. doi: 10.1111/j.1365-2249.2010.04280.x. Epub 2010 Nov 9. Review. PMID: 21062271 [PubMed - indexed for MEDLINE]
  
- [\[Shwachman-Diamond syndrome--a diagnostic challenge\].](#)
  2. Toiviainen-Salo S, Savilahti E, Mäkitie R, Mäkitie O. Duodecim. 2010;126(14):1711-9. Finnish. PMID: 20804090 [PubMed - indexed for MEDLINE]
  
- [Comparative analysis of Shwachman-Diamond syndrome to other inherited bone marrow failure syndromes and genotype-phenotype correlation.](#)
  3. Hashmi S, Allen C, Klaassen R, Fernandez C, Yanofsky R, Shereck E, Champagne J, Silva M, Lipton J, Brossard J, Samson Y, Abish S, Steele M, Ali K, Dower N, Athale U, Jardine L, Hand J, Beyene J, Dror Y. Clin Genet. 2010 May 22. doi: 10.1111/j.1399-0004.2010.01468.x. [Epub ahead of print] PMID: 20569259 [PubMed - as supplied by publisher]
  
- [Molecular diagnosis of Shwachman-Diamond syndrome in a child with incomplete clinical disease phenotype.](#)
  4. Linden T, Ehlert K, Niemeyer CM, Fleischhack G, Jürgens H, Rossig C. Pediatr Blood Cancer. 2010 Jul 15;55(1):177-9. PMID: 20486183 [PubMed - indexed for MEDLINE]
  
- [Shwachman-Diamond Syndrome.](#)
  5. Rommens JM, Durie PR. In: Pagon RA, Bird TD, Dolan CR, Stephens K, editors. GeneReviews [Internet]. Seattle (WA): University of Washington, Seattle; 1993-. 2008 Jul 17. PMID: 20301722 [PubMed] **Books & Documents**
  
- [A novel mutation in a Fijian boy with Shwachman-Diamond syndrome.](#)
  6. Newman AR, Moghaddam B, Yoon JM. J Pediatr Hematol Oncol. 2009 Nov;31(11):847-9. PMID: 19816210 [PubMed - indexed for MEDLINE]
  
- [\[Shwachman-diamond syndrome as cause of infantile eczema associated with failure to thrive\].](#)
  7. Lange L, Simon T, Ibach B, Rietschel E. Klin Padiatr. 2009 Mar-Apr;221(2):89-92. Epub 2009 Jan 7. German. PMID: 19130395 [PubMed - indexed for MEDLINE]
  
- [Totipotent stem cells bearing del\(20q\) maintain multipotential differentiation in Shwachman Diamond syndrome.](#)
  8. Crescenzi B, La Starza R, Sambani C, Parcharidou A, Pierini V, Nofrini V, Brandimarte L, Matteucci C, Aversa F, Martelli MF, Mecucci C. Br J Haematol. 2009 Jan;144(1):116-9. Epub 2008 Nov 11. PMID: 19016724 [PubMed - indexed for MEDLINE]
  
- [Shwachman-Diamond syndrome presenting as hypoglycemia.](#)
  9. Albrecht LA, Gorges SW, Styne DM, Bremer AA. Clin Pediatr (Phila). 2009 Mar;48(2):212-4. Epub 2008 Oct 2. No abstract available. PMID: 18832544 [PubMed - indexed for MEDLINE]
  
- [Shwachman-Diamond syndrome in a child presenting with cystic fibrosis-type symptoms and a false-positive sweat test.](#)
  10. Brown SM, Buchdahl R. J R Soc Med. 2008 Jul;101 Suppl 1:S39-43. No abstract available. PMID: 18607018 [PubMed - indexed for MEDLINE]
  
- [Shwachman syndrome--variations of presentation in adults.](#)
  11. Makharia GK, Bhatia V, Lal S, Garg P, Tandon RK. Indian J Gastroenterol. 2008 Jan-Feb;27(1):36-7. No abstract available. Erratum in: Indian J Gastroenterol. 2008 Mar-Apr;27(2):85. PMID: 18541939 [PubMed - indexed for MEDLINE]
  
- [Shwachman-Diamond syndrome presenting in a premature infant as pancytopenia.](#)
  12. Black LV, Soltau T, Kelly DR, Berkow RL. Pediatr Blood Cancer. 2008 Jul;51(1):123-4. PMID: 18322927 [PubMed - indexed for MEDLINE]



- 13. [A case of Shwachman-Diamond syndrome confirmed with genetic analysis in a Korean child.](#)  
Lee JH, Bae SH, Yu JJ, Lee R, Yun YM, Song EY.  
J Korean Med Sci. 2008 Feb;23(1):142-5.  
PMID: 18303216 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- 14. [Some cases of common variable immunodeficiency may be due to a mutation in the SBDS gene of Shwachman-Diamond syndrome.](#)  
Khan S, Hinks J, Shorto J, Schwarz MJ, Sewell WA.  
Clin Exp Immunol. 2008 Mar;151(3):448-54. Epub 2008 Jan 10. Review.  
PMID: 18190602 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- 15. [Bacteremia caused by Rothia mucilaginosa in a patient with Shwachman-Diamond syndrome.](#)  
Vaccher S, Cordiali R, Osimani P, Manso E, de Benedictis FM.  
Infection. 2007 Jun;35(3):209-10. No abstract available.  
PMID: 17565469 [PubMed - indexed for MEDLINE]
- 16. [The Shwachman-Bodian-Diamond syndrome gene mutations cause a neonatal form of spondylometaphysial dysplasia \(SMD\) resembling SMD Sedaghatian type.](#)  
Nishimura G, Nakashima E, Hirose Y, Cole T, Cox P, Cohn DH, Rimoin DL, Lachman RS, Miyamoto Y, Kerr B, Unger S, Ohashi H, Superti-Furga A, Ikegawa S.  
J Med Genet. 2007 Apr;44(4):e73.  
PMID: 17400792 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- 17. [Identification of a novel AluSx-mediated deletion of exon 3 in the SBDS gene in a patient with Shwachman-Diamond syndrome.](#)  
Costa E, Duque F, Oliveira J, Garcia P, Gonçalves I, Diogo L, Santos R.  
Blood Cells Mol Dis. 2007 Jul-Aug;39(1):96-101. Epub 2007 Mar 21.  
PMID: 17376717 [PubMed - indexed for MEDLINE]
- 18. [Monitoring the isochromosome i\(7\)\(q10\) in the bone marrow of patients with Shwachman syndrome by real-time quantitative PCR.](#)  
Porta G, Mattarucchi E, Maserati E, Pressato B, Valli R, Morerio C, Zecca M, Panarello C, Locatelli F, Lo Curto F, Pasquali F.  
J Pediatr Hematol Oncol. 2007 Mar;29(3):163-5.  
PMID: 17356395 [PubMed - indexed for MEDLINE]
- 19. [\[Shwachman-Diamond syndrome: clinical manifestations and molecular genetics\].](#)  
Erdos M, Maródi L.  
Orv Hetil. 2007 Mar 18;148(11):513-9. Hungarian.  
PMID: 17350924 [PubMed - indexed for MEDLINE]
- 20. [Shwachman--Diamond syndrome associated with autoimmune phenomena.](#)  
Reif S, Arav-Boger R, Diamant S, Burstein Y, Fatal A.  
J Med. 1999;30(3-4):259-65.  
PMID: 17312679 [PubMed - indexed for MEDLINE]
- 21. [MRI findings in Shwachman diamond syndrome.](#)  
Ruggiero A, Molinari F, Coccia P, Attinà G, Maurizi P, Riccardi R, Bonomo L.  
Pediatr Blood Cancer. 2008 Feb;50(2):352-4.  
PMID: 17183583 [PubMed - indexed for MEDLINE]
- 22. [Compound heterozygous mutations of the SBDS gene in a patient with Shwachman-Diamond syndrome, type 1 diabetes mellitus and osteoporosis.](#)  
Rosendahl J, Teich N, Mossner J, Edelmann J, Koch CA.  
Pancreatolgy. 2006;6(6):549-54. Epub 2006 Nov 10.  
PMID: 17106217 [PubMed - indexed for MEDLINE]
- 23. [Discordant endocrinopathy in a sibling with shwachman-diamond syndrome.](#)  
Kawashima H, Ushio M, Aritaki K, Kashiwagi Y, Watanabe C, Nishimata S, Takekuma K, Hoshika A, Taneichi H, Kanegane H.  
J Trop Pediatr. 2006 Dec;52(6):445-7. Epub 2006 Oct 19. No abstract available.  
PMID: 17053083 [PubMed - indexed for MEDLINE]
- 24. [Severe Shwachman-Diamond syndrome phenotype caused by compound heterozygous missense mutations in the SBDS gene.](#)  
Erdos M, Alapi K, Balogh I, Oroszlán G, Rákóczi E, Sümegi J, Maródi L.  
Exp Hematol. 2006 Nov;34(11):1517-21.  
PMID: 17046571 [PubMed - indexed for MEDLINE]
- 25. [\[Shwachman-Diamond syndrome. A case report\].](#)  
Macipe Costa RM, Javierre Miranda E, Lou Francés MG, Heredia González S, Calvo Martín MT.  
An Pediatr (Barc). 2006 Jul;65(1):79-82. Spanish.  
PMID: 16945294 [PubMed - indexed for MEDLINE] [Free Article](#)
- 26. [\[Hypertransaminasemia as a manifestation of Shwachman-Diamond syndrome\].](#)  
Revert Lázaro F, Pérez Monjardín E, Pérez AP.  
An Pediatr (Barc). 2006 May;64(5):481-4. Spanish.

PMID: 16756892 [PubMed - indexed for MEDLINE] **Free Article**

- [Isochromosome 7q in Down syndrome.](#)
- 27. Wong KF, Lam SC, Leung JN.  
Cancer Genet Cytogenet. 2006 Jan 15;164(2):152-4.  
PMID: 16434320 [PubMed - indexed for MEDLINE]
- [Successful unrelated umbilical cord blood transplantation in children with Shwachman-Diamond syndrome.](#)
- 28. Vibhakar R, Radhi M, Rumelhart S, Tatman D, Goldman F.  
Bone Marrow Transplant. 2005 Nov;36(10):855-61.  
PMID: 16113664 [PubMed - indexed for MEDLINE]
- [Molecular characterization of a Portuguese patient with Shwachman-Diamond syndrome.](#)
- 29. Lima RM, Costa E, Rocha C, Vieira E, dos Santos R, Barbot J, Rocha H.  
J Pediatr Gastroenterol Nutr. 2005 Jul;41(1):115-6. No abstract available.  
PMID: 15990640 [PubMed - indexed for MEDLINE]
- [A case of Shwachman-Diamond syndrome presenting with diabetes from early infancy.](#)
- 30. Kamoda T, Saito T, Kinugasa H, Iwasaki N, Sumazaki R, Mouri Y, Izumi I, Hirano T, Matsui A.  
Diabetes Care. 2005 Jun;28(6):1508-9. No abstract available.  
PMID: 15920082 [PubMed - indexed for MEDLINE] **Free Article**
- [Infections in patients with Shwachman-Diamond syndrome.](#)
- 31. Grinspan ZM, Pikora CA.  
Pediatr Infect Dis J. 2005 Feb;24(2):179-81. Review.  
PMID: 15702050 [PubMed - indexed for MEDLINE]
- [SBDS mutations and isochromosome 7q in a patient with Shwachman-Diamond syndrome: no predisposition to malignant transformation?](#)
- 32. Mellink CH, Alders M, van der Lelie H, Hennekam RH, Kuijpers TW.  
Cancer Genet Cytogenet. 2004 Oct 15;154(2):144-9.  
PMID: 15474150 [PubMed - indexed for MEDLINE]
- [Congenital aplastic anemia caused by mutations in the SBDS gene: a rare presentation of Shwachman-Diamond syndrome.](#)
- 33. Kuijpers TW, Nannenberg E, Alders M, Bredius R, Hennekam RC.  
Pediatrics. 2004 Sep;114(3):e387-91.  
PMID: 15342903 [PubMed - indexed for MEDLINE] **Free Article**
- [\[A case of Shwachman syndrome\].](#)
- 34. Zhang BX, Zhao XQ, Wu XL, Guo WJ.  
Zhonghua Er Ke Za Zhi. 2004 Jul;42(7):550. Chinese. No abstract available.  
PMID: 15324582 [PubMed - indexed for MEDLINE]
- [Successful unrelated donor bone marrow transplantation for Shwachman-Diamond syndrome with leukemia.](#)
- 35. Mitsui T, Kawakami T, Sendo D, Katsuura M, Shimizu Y, Hayasaka K.  
Int J Hematol. 2004 Feb;79(2):189-92. Review.  
PMID: 15005350 [PubMed - indexed for MEDLINE]
- [Shwachman-Diamond syndrome with late-onset neutropenia and fatal acute myeloid leukaemia without maturation: a case report.](#)
- 36. Lesesve JF, Dugué F, Grégoire MJ, Witz F, Dror Y.  
Eur J Haematol. 2003 Nov;71(5):393-5.  
PMID: 14667205 [PubMed - indexed for MEDLINE]
- [Transient exocrine pancreatic insufficiency as a possible complication of an enterovirus infection.](#)
- 37. Van Biervliet S, De Waele K, Van Winckel M, Robberecht E.  
Eur J Pediatr. 2003 Dec;162(12):872-4. Epub 2003 Sep 26.  
PMID: 14513373 [PubMed - indexed for MEDLINE]
- [Anaesthetic management of quinsy in a patient with Shwachman-Diamond syndrome.](#)
- 38. Tamhane P, Newton NI, White S.  
Anaesthesia. 2003 Aug;58(8):821. No abstract available.  
PMID: 12859504 [PubMed - indexed for MEDLINE]
- [Chromosome 20q deletion and progression to monosomy 7 in a patient with Shwachman-Diamond syndrome without MDS/AML.](#)
- 39. Raj AB, Bertolone SJ, Barch MJ, Hersh JH.  
J Pediatr Hematol Oncol. 2003 Jun;25(6):508-9. No abstract available.  
PMID: 12794535 [PubMed - indexed for MEDLINE]
- [Allogeneic bone marrow transplantation in Shwachman-Diamond syndrome with malignant myeloid transformation. A case report.](#)
- 40. Park SY, Chae MB, Kwack YG, Lee MH, Kim I, Kim YS, Kim CS.

- Korean J Intern Med. 2002 Sep;17(3):204-6.  
PMID: 12298432 [PubMed - indexed for MEDLINE] **Free Article**
- [Intermittent 20q- and consistent i\(7q\) in a patient with Shwachman-Diamond syndrome.](#)
41. Smith A, Shaw PJ, Webster B, Lammi A, Gaskin K, Diaz S, Sharma P.  
Pediatr Hematol Oncol. 2002 Oct-Nov;19(7):525-8.  
PMID: 12217199 [PubMed - indexed for MEDLINE]
- [Bone marrow transplantation in Shwachman-Diamond syndrome.](#)
42. Hsu JW, Vogelsang G, Jones RJ, Brodsky RA.  
Bone Marrow Transplant. 2002 Aug;30(4):255-8. Review.  
PMID: 12203143 [PubMed - indexed for MEDLINE] **Free Article**
- [Liver failure complicating non-alcoholic steatohepatitis following allogeneic bone marrow transplantation for Shwachman-Diamond syndrome.](#)
43. Ritchie DS, Angus PW, Bhathal PS, Grigg AP.  
Bone Marrow Transplant. 2002 Jun;29(11):931-3.  
PMID: 12080360 [PubMed - indexed for MEDLINE] **Free Article**
- [Successful allogeneic hematopoietic stem cell transplantation \(HSCT\) for Shwachman-Diamond syndrome.](#)
44. Fleitz J, Rumelhart S, Goldman F, Ambruso D, Sokol RJ, Pacini D, Quinones R, Holida M, Lee N, Tannous R, Giller R.  
Bone Marrow Transplant. 2002 Jan;29(1):75-9. Review.  
PMID: 11840149 [PubMed - indexed for MEDLINE] **Free Article**
- [Shwachman syndrome in a preterm newborn associated with transient diabetes mellitus.](#)
45. Filippi L, Tronchin M, Pezzati M, Chiti G, Dani C, Vichi GF, Rubaltelli FF.  
J Pediatr Gastroenterol Nutr. 2002 Feb;34(2):219-23. No abstract available.  
PMID: 11840044 [PubMed - indexed for MEDLINE]
- [Expression of CD5 on hematogones in a 7-year-old girl with Shwachman-Diamond syndrome.](#)
46. Jelic TM, Raj AB, Jin B, Kurczynski EM, Tolaymat N, Chang HH.  
Pediatr Dev Pathol. 2001 Sep-Oct;4(5):505-11.  
PMID: 11779055 [PubMed - indexed for MEDLINE]
- [Shwachman-Diamond syndrome in a Mexican family.](#)
47. Belkind-Gerson J, Ontiveros-Nevaros P, Ocampo-Roosens V, Sandoval-Juárez D.  
Arch Med Res. 2001 Jul-Aug;32(4):318-23.  
PMID: 11440791 [PubMed - indexed for MEDLINE]
- [Special feature: pathological case of the month. Shwachman-Diamond syndrome: a syndrome of pancreatic insufficiency and bone marrow dysfunction.](#)
48. Kakkar N, Vasishta RK, Marwaha N, Marwaha RK.  
Arch Pediatr Adolesc Med. 2001 May;155(5):611-2. No abstract available.  
PMID: 11343509 [PubMed - indexed for MEDLINE] **Free Article**
- [Successful unrelated bone marrow transplantation for Shwachman-Diamond syndrome.](#)
49. Cesaro S, Guariso G, Calore E, Gazzola MV, Destro R, Varotto S, Zanesco L, Messina C.  
Bone Marrow Transplant. 2001 Jan;27(1):97-9.  
PMID: 11244445 [PubMed - indexed for MEDLINE] **Free Article**
- [Cytogenetic characterization of acute myeloid leukemia in Shwachman's syndrome. A case report.](#)
50. Spirito FR, Crescenzi B, Matteucci C, Martelli MF, Mecucci C.  
Haematologica. 2000 Nov;85(11):1207-10. Review.  
PMID: 11064470 [PubMed - indexed for MEDLINE] **Free Article**
- [Isochromosome \(7\)\(q10\) in Shwachman syndrome without MDS/AML and role of chromosome 7 anomalies in myeloproliferative disorders.](#)
51. Maserati E, Minelli A, Olivieri C, Bonvini L, Marchi A, Bozzola M, Danesino C, Scappaticci S, Pasquali F.  
Cancer Genet Cytogenet. 2000 Sep;121(2):167-71.  
PMID: 11063802 [PubMed - indexed for MEDLINE]
- [Emergence of an unusual bone marrow precursor B-cell population in fatal Shwachman-Diamond syndrome.](#)
52. Klupp N, Simonitsch I, Mannhalter C, Amann G.  
Arch Pathol Lab Med. 2000 Sep;124(9):1379-81.  
PMID: 10975944 [PubMed - indexed for MEDLINE]
- [Discordant detection of monosomy 7 by GTG-banding and FISH in a patient with Shwachman-Diamond syndrome without evidence of myelodysplastic syndrome or acute myelogenous leukemia.](#)
53. Sokolic RA, Ferguson W, Mark HF.  
Cancer Genet Cytogenet. 1999 Dec;115(2):106-13.  
PMID: 10598142 [PubMed - indexed for MEDLINE]

- [Shwachman-Diamond syndrome: early bone marrow transplantation in a high risk patient and new clues to pathogenesis.](#)
- 54. Faber J, Lauener R, Wick F, Betts D, Filgueira L, Seger RA, Güngör T.  
Eur J Pediatr. 1999 Dec;158(12):995-1000. Review.  
PMID: 10592077 [PubMed - indexed for MEDLINE]
- [Pregnancy in bone marrow failure syndromes: Diamond-Blackfan anaemia and Shwachman-Diamond syndrome.](#)
- 55. Alter BP, Kumar M, Lockhart LL, Sprinz PG, Rowe TF.  
Br J Haematol. 1999 Oct;107(1):49-54.  
PMID: 10520024 [PubMed - indexed for MEDLINE]
- [Increased spontaneous chromosomal breakage in Shwachman syndrome.](#)
- 56. Hershkovits BS, Dagan J, Freier S.  
J Pediatr Gastroenterol Nutr. 1999 Apr;28(4):449-50. No abstract available.  
PMID: 10204514 [PubMed - indexed for MEDLINE]
- [\[A boy highly suspected of Shwachman syndrome\].](#)
- 57. Wada Y, Kitajima H, Kubo M.  
Nihon Rinsho Meneki Gakkai Kaishi. 1998 Feb;21(1):33-40. Japanese.  
PMID: 9884549 [PubMed - indexed for MEDLINE]
- [Malignant myeloid transformation with isochromosome 7q in Shwachman-Diamond syndrome.](#)
- 58. Dror Y, Squire J, Durie P, Freedman MH.  
Leukemia. 1998 Oct;12(10):1591-5.  
PMID: 9766504 [PubMed - indexed for MEDLINE]
- [Duplication of distal thumb phalanx in Shwachman-Diamond syndrome.](#)
- 59. Dror Y, Durie P, Marcon P, Freedman MH.  
Am J Med Genet. 1998 Jun 16;78(1):67-9.  
PMID: 9637427 [PubMed - indexed for MEDLINE]
- [Bone marrow transplantation in Shwachman-Diamond syndrome: report of two cases and review of the literature.](#)
- 60. Okcu F, Roberts WM, Chan KW.  
Bone Marrow Transplant. 1998 Apr;21(8):849-51. Review.  
PMID: 9603415 [PubMed - indexed for MEDLINE] **Free Article**
- [Adult onset of acute myeloid leukaemia \(M6\) in patients with Shwachman-Diamond syndrome.](#)
- 61. Dokal I, Rule S, Chen F, Potter M, Goldman J.  
Br J Haematol. 1997 Oct;99(1):171-3.  
PMID: 9359520 [PubMed - indexed for MEDLINE]
- [Depressed natural killer cell activity due to decreased natural killer cell population in a vitamin E-deficient patient with Shwachman syndrome: reversible natural killer cell abnormality by alpha-tocopherol supplementation.](#)
- 62. Adachi N, Migita M, Ohta T, Higashi A, Matsuda I.  
Eur J Pediatr. 1997 Jun;156(6):444-8.  
PMID: 9208238 [PubMed - indexed for MEDLINE]
- [Severe Shwachman-Diamond syndrome and invasive parvovirus B19 infection.](#)
- 63. Miniero R, Dalponte S, Linari A, Saracco P, Testa A, Musiani M.  
Pediatr Hematol Oncol. 1996 Nov-Dec;13(6):555-61.  
PMID: 8940740 [PubMed - indexed for MEDLINE]
- [\[Shwachman's syndrome\].](#)
- 64. Zárate Mondragón FE, Ramírez Mayans JA, Cervantes Bustamante R, Mora Tiscareño MA, Mata Rivera N, Rodríguez Lizárraga E.  
Rev Gastroenterol Mex. 1996 Oct-Dec;61(4):371-5. Spanish.  
PMID: 9072792 [PubMed - indexed for MEDLINE]
- [Nutritional deficiency and the skin in Shwachman syndrome.](#)
- 65. Rybojad MR, Cambiagli S, Vignon-Pennamen MD, Blanchet-Bardon C, Moraillon I, Morel P.  
Br J Dermatol. 1996 Aug;135(2):340-2. No abstract available.  
PMID: 8881700 [PubMed - indexed for MEDLINE]
- [Allogeneic bone marrow transplatation in a patient with Shwachman-Diamond syndrome.](#)
- 66. Arseniev L, Diedrich H, Link H.  
Ann Hematol. 1996 Feb;72(2):83-4.  
PMID: 8597612 [PubMed - indexed for MEDLINE]
- [Shwachman-Diamond syndrome: the clinical imitator of cystic fibrosis.](#)
- 67. Lozada-Muñoz L, Aliaga MD.  
P R Health Sci J. 1995 Dec;14(4):275-7. Review.  
PMID: 8637967 [PubMed - indexed for MEDLINE]

- [Shwachman syndrome associated with de novo reciprocal translocation t\(6;12\)\(q16.2;q21.2\).](#)
- 68. Masuno M, Imaizumi K, Nishimura G, Nakamura M, Saito I, Akagi K, Kuroki Y.  
J Med Genet. 1995 Nov;32(11):894-5.  
PMID: 8592336 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Shwachman-Diamond syndrome and matched unrelated donor BMT.](#)
- 69. Smith OP, Chan MY, Evans J, Veys P.  
Bone Marrow Transplant. 1995 Nov;16(5):717-8.  
PMID: 8547872 [PubMed - indexed for MEDLINE]
- [Shwachman-Diamond syndrome associated with hypogammaglobulinemia and growth hormone deficiency.](#)
- 70. Kornfeld SJ, Kratz J, Diamond F, Day NK, Good RA.  
J Allergy Clin Immunol. 1995 Aug;96(2):247-50.  
PMID: 7636061 [PubMed - indexed for MEDLINE]
- [Human granulocyte colony-stimulating factor \(rHuG-CSF\) for treatment of neutropenia in Shwachman syndrome.](#)
- 71. Ventura A, Dragovich D, Luxardo P, Zanazzo G.  
Haematologica. 1995 May-Jun;80(3):227-9.  
PMID: 7545636 [PubMed - indexed for MEDLINE] **Free Article**
- [Pathophysiology of the pancreatic defect in Johanson-Blizzard syndrome: a disorder of acinar development.](#)
- 72. Jones NL, Hofley PM, Durie PR.  
J Pediatr. 1994 Sep;125(3):406-8.  
PMID: 8071749 [PubMed - indexed for MEDLINE]
- [Shwachman-Diamond syndrome presenting as hepatosplenomegaly.](#)
- 73. Wilschanski M, van der Hoeven E, Phillips J, Shuckett B, Durie P.  
J Pediatr Gastroenterol Nutr. 1994 Jul;19(1):111-3. No abstract available.  
PMID: 7965460 [PubMed - indexed for MEDLINE]
- [Orthopaedic features of Shwachman syndrome. A report of two cases.](#)
- 74. Dhar S, Anderton JM.  
J Bone Joint Surg Am. 1994 Feb;76(2):278-82. Review. No abstract available.  
PMID: 8113266 [PubMed - indexed for MEDLINE]
- [Computed tomography and ultrasonography findings for an adult with Shwachman syndrome and pancreatic lipomatosis.](#)
- 75. MacMaster SA, Cummings TM.  
Can Assoc Radiol J. 1993 Aug;44(4):301-3.  
PMID: 8348362 [PubMed - indexed for MEDLINE]
- [Shwachman syndrome: CT and MR diagnosis.](#)
- 76. Bom EP, van der Sande FM, Tjon RT, Tham A, Hillen HF.  
J Comput Assist Tomogr. 1993 May-Jun;17(3):474-6.  
PMID: 8491914 [PubMed - indexed for MEDLINE]
- [\[Treatment of neutropenia in Shwachman's syndrome with granulocyte growth factor \(G-CSF\)\].](#)
- 77. Grill J, Bernaudin F, Dresch C, Lemerle S, Reinert P.  
Arch Fr Pediatr. 1993 Apr;50(4):331-3. French.  
PMID: 7691045 [PubMed - indexed for MEDLINE]
- [\[Shwachman syndrome: apropos of a case of atypical presentation\].](#)
- 78. Ruiz López MJ, Pérez Jurado L, Cano Fernández J, de la Torre Montes de Neira E, Yep Chillen G, Melendi Crespo J.  
An Esp Pediatr. 1992 Sep;37(3):241-2. Spanish. No abstract available.  
PMID: 1443924 [PubMed - indexed for MEDLINE]
- [Sinusitis and bacteremia caused by Flavobacterium meningosepticum in a sixteen-year-old with Shwachman Diamond syndrome.](#)
- 79. Skapek SX, Jones WS, Hoffman KM, Kuskie MR.  
Pediatr Infect Dis J. 1992 May;11(5):411-3. No abstract available.  
PMID: 1630865 [PubMed - indexed for MEDLINE]
- [Shwachman syndrome: a case report.](#)
- 80. Mortureux P, Taïeb A, Bazeille JE, Hehunstre JP, Maleville J.  
Pediatr Dermatol. 1992 Mar;9(1):57-61.  
PMID: 1374183 [PubMed - indexed for MEDLINE]
- [Bone marrow transplant in Shwachman Diamond syndrome.](#)
- 81. Barrios N, Kirkpatrick D, Regueira O, Wuttke B, McNeil J, Humbert J.  
Br J Haematol. 1991 Oct;79(2):337-8. No abstract available.  
PMID: 1958495 [PubMed - indexed for MEDLINE]
- [\[Shwachman syndrome. Exocrine pancreatic insufficiency, growth retardation, peripheral dysostoses and neutropenia\].](#)

82. Lankisch PG.  
Dtsch Med Wochenschr. 1991 May 24;116(21):812-5. German.  
PMID: 2032532 [PubMed - indexed for MEDLINE]
- [Is Shwachman syndrome \(McKusick 26040\) a chromosome breakage syndrome?](#)
83. Koiffmann CP, Gonzalez CH, Souza DH, Romani EG, Kim CA, Wajntal A.  
Hum Genet. 1991 May;87(1):106-7. No abstract available.  
PMID: 2037277 [PubMed - indexed for MEDLINE]
- [Ichthyosis, exocrine pancreatic insufficiency, impaired neutrophil chemotaxis, growth retardation, and metaphyseal dysplasia \(Shwachman syndrome\). Report of a case with extensive skin lesions \(clinical, histological, and ultrastructural findings\)](#)
84. Goeteyn M, Oranje AP, Vuzevski VD, de Groot R, van Suijlekom-Smit LW.  
Arch Dermatol. 1991 Feb;127(2):225-30. Review.  
PMID: 1990988 [PubMed - indexed for MEDLINE]
- [In vivo effectiveness of lithium on impaired neutrophil chemotaxis in Shwachman-Diamond syndrome.](#)
85. Azzarà A, Carulli G, Ceccarelli M, Pucci C, Raggio R, Ambrogi F.  
Acta Haematol. 1991;85(2):100-2.  
PMID: 2024551 [PubMed - indexed for MEDLINE]
- [\[Congenital hypoplasia of the pancreas with lipomatosis and bone marrow dysfunction \(Shwachman syndrome\)\].](#)
86. Zai'rat'ants OV, Miagkova LP, Podymova SD, Mel'nichenko GA, Burmakin IuA.  
Arkh Patol. 1991;53(7):71-4. Russian.  
PMID: 1741673 [PubMed - indexed for MEDLINE]
- [Successful cyclosporin A treatment of aplastic anaemia in Shwachman-Diamond syndrome.](#)
87. Barrios NJ, Kirkpatrick DV.  
Br J Haematol. 1990 Apr;74(4):540-1. No abstract available.  
PMID: 2346732 [PubMed - indexed for MEDLINE]
- [Fatal cyclophosphamide-induced congestive heart failure in a 10-year-old boy with Shwachman-Diamond syndrome and severe bone marrow failure treated with allogeneic bone marrow transplantation.](#)
88. Tsai PH, Sahdev I, Herry A, Lipton JM.  
Am J Pediatr Hematol Oncol. 1990 Winter;12(4):472-6. Erratum in: Am J Pediatr Hematol Oncol 1991 Summer;13(2):248.  
PMID: 2285129 [PubMed - indexed for MEDLINE]
- [\[Criteria of a Shwachman-Diamond syndrome in 2 brothers\].](#)
89. Henze E, Hitzemann T.  
Rofo. 1990 Jan;152(1):100-2. Review. German. No abstract available.  
PMID: 2153993 [PubMed - indexed for MEDLINE]
- [Malabsorption of flucytosine in a pediatric patient with Shwachman syndrome.](#)
90. Harper KJ, Sawyer WT.  
DICP. 1989 Oct;23(10):782-3.  
PMID: 2815856 [PubMed - indexed for MEDLINE]
- [In vitro restoration by lithium of defective chemotaxis in Shwachman-Diamond syndrome.](#)
91. Azzarà A, Carulli G, Polidori R, Ceccarelli M, Simoni F, Ambrogi F.  
Br J Haematol. 1988 Dec;70(4):502. No abstract available.  
PMID: 3219301 [PubMed - indexed for MEDLINE]
- [Treatment failure in celiac disease due to coexistent exocrine pancreatic insufficiency.](#)
92. Weizman Z, Hamilton JR, Kopelman HR, Cleghorn G, Durie PR.  
Pediatrics. 1987 Dec;80(6):924-6.  
PMID: 3684405 [PubMed - indexed for MEDLINE]
- [A case of Shwachman syndrome with increased spontaneous chromosome breakage.](#)
93. Tada H, Ri T, Yoshida H, Ishimoto K, Kaneko M, Yamashiro Y, Shinohara T.  
Hum Genet. 1987 Nov;77(3):289-91.  
PMID: 3119460 [PubMed - indexed for MEDLINE]
- [Focal pontine leukoencephalopathy in a patient with the Shwachman-Diamond syndrome.](#)
94. Mah V, Nelson L, Vinters HV.  
Can J Neurol Sci. 1987 Nov;14(4):608-10.  
PMID: 2825956 [PubMed - indexed for MEDLINE]
- [The increased echogenicity of the pancreas in infants and children: the white pancreas.](#)
95. Schneider K, Harms K, Fendel H.  
Eur J Pediatr. 1987 Sep;146(5):508-11.  
PMID: 3315685 [PubMed - indexed for MEDLINE]



- 96. [Pancreatic exocrine aplasia, clinical features of leprechaunism, and abnormal gonadotropin regulation.](#)  
Szilagyi PG, Corsetti J, Callahan CM, McCormick K, Metlay LA.  
Pediatr Pathol. 1987;7(1):51-61.  
PMID: 3110750 [PubMed - indexed for MEDLINE]
- 97. [\[Shwachman syndrome: apropos of a case with characteristic echographic changes and review of the literature\].](#)  
Temboury Molina MC, Carrasco Gandía S, López-Herce J, Duelo Marcos M, Vázquez C.  
An Esp Pediatr. 1986 Jul;25(1):63-6. Spanish. No abstract available.  
PMID: 3530077 [PubMed - indexed for MEDLINE]
- 98. [Prilocaine-induced methemoglobinemia in a child with Shwachman syndrome.](#)  
Klos CP, Hays GL.  
J Oral Maxillofac Surg. 1985 Aug;43(8):621-3.  
PMID: 3859614 [PubMed - indexed for MEDLINE]
- 99. [Central pontine myelinolysis in a child with the Shwachman-Diamond syndrome.](#)  
Steinsapir KD, Vinters HV.  
Hum Pathol. 1985 Jul;16(7):741-3.  
PMID: 4007852 [PubMed - indexed for MEDLINE]
- 100. [Pancreatic lipomatosis in the Shwachman-Diamond syndrome. Identification by sonography and CT-scan.](#)  
Robberecht E, Nachtegaele P, Van Rattinthe R, Afschrift M, Kunnen M, Verhaaren R.  
Pediatr Radiol. 1985;15(5):348-9.  
PMID: 3897999 [PubMed - indexed for MEDLINE]
- 101. [\[An adult case with clinical features similar to Shwachman syndrome\].](#)  
Sumii T, Kimura T, Funakoshi A, Shinozaki H, Miyazaki K, Wakasugi H, Motomura S, Ibayashi H.  
Nippon Shokakibyō Gakkai Zasshi. 1984 Dec;81(12):3033-8. Japanese. No abstract available.  
PMID: 6530806 [PubMed - indexed for MEDLINE]
- 102. [\[Combination of a Shwachman syndrome and a complex granulocyte function disorder in a girl\].](#)  
Dopfer R, Döring A, Niethammer D.  
Helv Paediatr Acta. 1983 Oct;38(4):351-60. German.  
PMID: 6654686 [PubMed - indexed for MEDLINE]
- 103. [\[Shwachman-Diamond syndrome\].](#)  
Branski D, Gross V, Gross-Kieselstein E, Hurvitz H.  
Harefuah. 1983 Sep;105(5-6):114-5. Hebrew. No abstract available.  
PMID: 6654257 [PubMed - indexed for MEDLINE]
- 104. [Association of neutrophil and complement defects in two twins with Shwachman syndrome.](#)  
Sacchi F, Maggiore G, Marseglia G, Marconi M, Nespoli L, Siccardi AG.  
Helv Paediatr Acta. 1982 May;37(2):177-81.  
PMID: 7201460 [PubMed - indexed for MEDLINE]
- 105. [Shwachman syndrome: unusual presentation as asphyxiating thoracic dystrophy.](#)  
Michels VV, Donovan GK.  
Birth Defects Orig Artic Ser. 1982;18(3B):129-34. No abstract available.  
PMID: 7139093 [PubMed - indexed for MEDLINE]
- 106. [The occurrence of leukemia in patients with the Shwachman syndrome.](#)  
Woods WG, Roloff JS, Lukens JN, Krivit W.  
J Pediatr. 1981 Sep;99(3):425-8. No abstract available.  
PMID: 7264801 [PubMed - indexed for MEDLINE]
- 107. [\[An unusual case of Shwachman-Diamond syndrome\].](#)  
Azizi E, Mundel G, Kaufman Z, Lifnitsky V.  
Harefuah. 1981 Jun 15;100(12):573-5. Hebrew. No abstract available.  
PMID: 7319351 [PubMed - indexed for MEDLINE]
- 108. [Aplastic anemia associated with the Shwachman syndrome. In vivo and in vitro observations.](#)  
Woods WG, Krivit W, Lubin BH, Ramsay NK.  
Am J Pediatr Hematol Oncol. 1981 Winter;3(4):347-51.  
PMID: 7332065 [PubMed - indexed for MEDLINE]
- 109. [Shwachman-Diamond syndrome and chronic liver disease.](#)  
Liebman WM, Rosental E, Hirshberger M, Thaler MM.  
Clin Pediatr (Phila). 1979 Nov;18(11):695-6, 698.  
PMID: 498691 [PubMed - indexed for MEDLINE]
- 110. [Hepatic dysfunction and dysgammaglobulinaemia in Shwachman-Diamond syndrome.](#)

110. Mäki M, Sorto A, Hällström O, Visakorpi JK.  
Arch Dis Child. 1978 Aug;53(8):693-4. No abstract available.  
PMID: 708113 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Impaired neutrophil kinesis in a patient with the Shwachman-Diamond syndrome.](#)
111. Thong YH.  
Aust Paediatr J. 1978 Mar;14(1):34-7. No abstract available.  
PMID: 687246 [PubMed - indexed for MEDLINE]
- [Hepatic dysfunction in association with pancreatic insufficiency and cyclical neutropenia. Shwachman-Diamond syndrome.](#)
112. Brueton MJ, Mavromichalis J, Goodchild MC, Anderson CM.  
Arch Dis Child. 1977 Jan;52(1):76-8.  
PMID: 836058 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [\[Pancreatic insufficiency and bone marrow dysfunction \(Shwachman syndrome\)--report of a case with decreased in vitro colony formation \(author's transl\)\].](#)
113. Suda T, Matsuyama T, Nagao T.  
Rinsho Ketsueki. 1975 Dec;16(12):1147-52. Japanese. No abstract available.  
PMID: 1240983 [PubMed - indexed for MEDLINE]



**Are you looking for gene information?**

Source: Gene Database

[See 30 articles](#) about **SBDS** gene function**SBDS** Shwachman-Bodian-Diamond syndrome [Homo sapiens]sbds in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 13 Gene records](#)**Results: 20**

- [Do ribosomopathies explain some cases of common variable immunodeficiency?](#)  
1. Khan S, Pereira J, Darbyshire PJ, Holding S, Doré PC, Sewell WA, Huissoon A.  
Clin Exp Immunol. 2011 Jan;163(1):96-103. doi: 10.1111/j.1365-2249.2010.04280.x. Epub 2010 Nov 9. Review.  
PMID: 21062271 [PubMed - indexed for MEDLINE]
- [\[Shwachman-Diamond syndrome--a diagnostic challenge\].](#)  
2. Toiviainen-Salo S, Savilahti E, Mäkitie R, Mäkitie O.  
Duodecim. 2010;126(14):1711-9. Finnish.  
PMID: 20804090 [PubMed - indexed for MEDLINE]
- [Comparative analysis of Shwachman-Diamond syndrome to other inherited bone marrow failure syndromes and genotype-phenotype correlation.](#)  
3. Hashmi S, Allen C, Klaassen R, Fernandez C, Yanofsky R, Shereck E, Champagne J, Silva M, Lipton J, Brossard J, Samson Y, Abish S, Steele M, Ali K, Dower N, Athale U, Jardine L, Hand J, Beyene J, Dror Y.  
Clin Genet. 2010 May 22. doi: 10.1111/j.1399-0004.2010.01468.x. [Epub ahead of print]  
PMID: 20569259 [PubMed - as supplied by publisher]
- [Shwachman-Diamond Syndrome.](#)  
4. Rommens JM, Durie PR.  
In: Pagon RA, Bird TD, Dolan CR, Stephens K, editors. GeneReviews [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2008 Jul 17.  
PMID: 20301722 [PubMed] **Books & Documents**
- [Anterior Stafne bone defect mimicking a residual cyst: a case report.](#)  
5. Sisman Y, Etöz OA, Mavili E, Sahman H, Tarim Ertas E.  
Dentomaxillofac Radiol. 2010 Feb;39(2):124-6.  
PMID: 20100926 [PubMed - indexed for MEDLINE]
- [A novel mutation in a Fijian boy with Shwachman-Diamond syndrome.](#)  
6. Newman AR, Moghaddam B, Yoon JM.  
J Pediatr Hematol Oncol. 2009 Nov;31(11):847-9.  
PMID: 19816210 [PubMed - indexed for MEDLINE]
- [\[Shwachman-diamond syndrome as cause of infantile eczema associated with failure to thrive\].](#)  
7. Lange L, Simon T, Ibach B, Rietschel E.  
Klin Padiatr. 2009 Mar-Apr;221(2):89-92. Epub 2009 Jan 7. German.  
PMID: 19130395 [PubMed - indexed for MEDLINE]
- [Totipotent stem cells bearing del\(20q\) maintain multipotential differentiation in Shwachman Diamond syndrome.](#)  
8. Crescenzi B, La Starza R, Sambani C, Parcharidou A, Pierini V, Nofrini V, Brandimarte L, Matteucci C, Aversa F, Martelli MF, Mecucci C.  
Br J Haematol. 2009 Jan;144(1):116-9. Epub 2008 Nov 11.  
PMID: 19016724 [PubMed - indexed for MEDLINE]
- [Shwachman-Diamond syndrome presenting as hypoglycemia.](#)  
9. Albrecht LA, Gorges SW, Styne DM, Bremer AA.  
Clin Pediatr (Phila). 2009 Mar;48(2):212-4. Epub 2008 Oct 2. No abstract available.  
PMID: 18832544 [PubMed - indexed for MEDLINE]
- [Clinical and radiographic delineation of odontochondrodysplasia.](#)  
10. Unger S, Antoniazzi F, Brugnara M, Alanay Y, Caglayan A, Lachlan K, Ikegawa S, Nishimura G, Zabel B, Spranger J, Superti-Furga A.  
Am J Med Genet A. 2008 Mar 15;146A(6):770-8.  
PMID: 18241073 [PubMed - indexed for MEDLINE]
- [Congenital neutropenia.](#)  
11. Townshend J, Clark J, Cant A, Carey P, Kumar P, Campbell D.

Arch Dis Child Educ Pract Ed. 2008 Feb;93(1):14-8. No abstract available.  
PMID: 18208980 [PubMed - indexed for MEDLINE]

- 12.  [Some cases of common variable immunodeficiency may be due to a mutation in the SBDS gene of Shwachman-Diamond syndrome.](#)  
Khan S, Hinks J, Shorto J, Schwarz MJ, Sewell WA.  
Clin Exp Immunol. 2008 Mar;151(3):448-54. Epub 2008 Jan 10. Review.  
PMID: 18190602 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 13.  [The Shwachman-Bodian-Diamond syndrome gene mutations cause a neonatal form of spondylometaphysial dysplasia \(SMD\) resembling SMD Sedaghatian type.](#)  
Nishimura G, Nakashima E, Hirose Y, Cole T, Cox P, Cohn DH, Rimoin DL, Lachman RS, Miyamoto Y, Kerr B, Unger S, Ohashi H, Superti-Furga A, Ikegawa S.  
J Med Genet. 2007 Apr;44(4):e73.  
PMID: 17400792 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 14.  [Identification of a novel AluSx-mediated deletion of exon 3 in the SBDS gene in a patient with Shwachman-Diamond syndrome.](#)  
Costa E, Duque F, Oliveira J, Garcia P, Gonçalves I, Diogo L, Santos R.  
Blood Cells Mol Dis. 2007 Jul-Aug;39(1):96-101. Epub 2007 Mar 21.  
PMID: 17376717 [PubMed - indexed for MEDLINE]
- 15.  [Compound heterozygous mutations of the SBDS gene in a patient with Shwachman-Diamond syndrome, type 1 diabetes mellitus and osteoporosis.](#)  
Rosendahl J, Teich N, Mossner J, Edelmann J, Koch CA.  
Pancreatol. 2006;6(6):549-54. Epub 2006 Nov 10.  
PMID: 17106217 [PubMed - indexed for MEDLINE]
- 16.  [Severe Shwachman-Diamond syndrome phenotype caused by compound heterozygous missense mutations in the SBDS gene.](#)  
Erdos M, Alapi K, Balogh I, Oroszlán G, Rákóczi E, Sümegi J, Maródi L.  
Exp Hematol. 2006 Nov;34(11):1517-21.  
PMID: 17046571 [PubMed - indexed for MEDLINE]
- 17.  [A pediatric genetic disorder diagnosed in adulthood.](#)  
Church JA.  
PLoS Med. 2006 Jan;3(1):e15. Epub 2006 Jan 31. No abstract available.  
PMID: 16435889 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 18.  [Usefulness of pancreatic ultrasonography in the diagnosis of Shwachman-Bodian-Diamond syndrome.](#)  
Adachi M, Tachibana K, Asakura Y, Aida N.  
Acta Paediatr. 2005 Nov;94(11):1686-90.  
PMID: 16303713 [PubMed - indexed for MEDLINE]
- 19.  [SBDS mutations and isochromosome 7q in a patient with Shwachman-Diamond syndrome: no predisposition to malignant transformation?](#)  
Mellink CH, Alders M, van der Lelie H, Hennekam RH, Kuijpers TW.  
Cancer Genet Cytogenet. 2004 Oct 15;154(2):144-9.  
PMID: 15474150 [PubMed - indexed for MEDLINE]
- 20.  [Congenital aplastic anemia caused by mutations in the SBDS gene: a rare presentation of Shwachman-Diamond syndrome.](#)  
Kuijpers TW, Nannenbergh E, Alders M, Bredius R, Hennekam RC.  
Pediatrics. 2004 Sep;114(3):e387-91.  
PMID: 15342903 [PubMed - indexed for MEDLINE] **Free Article**

## Results: 153

- [\[A report of a family with chronic granulomatous disease with a gp91phox disorder\].](#)
  1. Hernández AG, Reyes SL, Yamazaki Nakashimada MA, Gonzáles Serrano ME, Rosales FE, Galicia LB. Rev Alerg Mex. 2010 Mar-Apr;57(2):60-5. Spanish. PMID: 20857632 [PubMed - indexed for MEDLINE]
- [Chronic noninfectious necrotizing granulomas in a child with Nijmegen breakage syndrome.](#)
  2. Vogel CA, Stratman EJ, Reck SJ, Lund JJ. Pediatr Dermatol. 2010 May-Jun;27(3):285-9. Review. PMID: 20609147 [PubMed - indexed for MEDLINE]
- [X-linked chronic granulomatous disease with voriconazole-induced photosensitivity/ photoaging reaction.](#)
  3. Frisch S, Askari SK, Beaty SR, Burkemper CN. J Drugs Dermatol. 2010 May;9(5):562-4. PMID: 20480802 [PubMed - indexed for MEDLINE]
- [Successful hematopoietic stem cell transplantation in 2 children with X-linked chronic granulomatous disease from their unaffected HLA-identical siblings selected using preimplantation genetic diagnosis combined with HLA typing.](#)
  4. Goussetis E, Konialis CP, Peristeri I, Kitra V, Dimopoulou M, Petropoulou T, Vessalas G, Papassavas A, Tzanoudaki M, Kokkali G, Petrakou E, Spiropoulos A, Pangalos CG, Pantos K, Graphakos S. Biol Blood Marrow Transplant. 2010 Mar;16(3):344-9. Epub 2009 Oct 14. PMID: 19835970 [PubMed - indexed for MEDLINE]
- [Family clusters of variant X-linked chronic granulomatous disease.](#)
  5. Bender JM, Rand TH, Ampofo K, Pavia AT, Schober M, Tebo A, Pasi B, Augustine NH, Pryor RJ, Wittwer CT, Hill HR. Pediatr Infect Dis J. 2009 Jun;28(6):529-33. PMID: 19483518 [PubMed - indexed for MEDLINE]
- [Prenatal diagnosis of chronic granulomatous disease in a male fetus.](#)
  6. Yavuz Köker M, Metin A, Özgür TT, de Boer M, Roos D. Iran J Allergy Asthma Immunol. 2009 Mar;8(1):57-61. PMID: 19279361 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease \(CGD\) mimicking neoplasms: a suspected mediastinal teratoma unmasking as thymic granulomas due to X-linked CGD, and 2 related cases.](#)
  7. Hauck F, Heine S, Beier R, Wieczorek K, Müller D, Hahn G, Gahr M, Rösen-Wolff A, Roesler J. J Pediatr Hematol Oncol. 2008 Dec;30(12):877-80. PMID: 19131770 [PubMed - indexed for MEDLINE]
- [Fatal hemophagocytic lymphohistiocytosis in X-linked chronic granulomatous disease associated with a perforin gene variant.](#)
  8. van Montfrans JM, Rudd E, van de Corput L, Henter JI, Nikkels P, Wulffraat N, Boelens JJ. Pediatr Blood Cancer. 2009 Apr;52(4):527-9. PMID: 19058215 [PubMed - indexed for MEDLINE]
- [Two-year-old boy with cervical and liver abscesses.](#)
  9. Fehon R, Mehr S, La Hei E, Isaacs D, Wong M. J Paediatr Child Health. 2008 Nov;44(11):670-2. PMID: 19012643 [PubMed - indexed for MEDLINE]
- [Carriers of X-linked chronic granulomatous disease at risk.](#)
  10. Roesler J. Clin Immunol. 2009 Feb;130(2):233; author reply 234. Epub 2008 Nov 11. No abstract available. PMID: 19004669 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease.](#)
  11. Lipu HN, Ahmed TA, Ali S, Ahmed D, Waqar MA. J Pak Med Assoc. 2008 Sep;58(9):516-8. PMID: 18846805 [PubMed - indexed for MEDLINE]
- [Birth of a healthy histocompatible sibling following preimplantation genetic diagnosis for chronic granulomatous disease at the blastocyst stage coupled to HLA typing.](#)
  12. Pangalos CG, Hagnefelt B, Kokkali G, Pantos K, Konialis CP.

Fetal Diagn Ther. 2008;24(4):334-9. Epub 2008 Oct 8.  
PMID: 18841023 [PubMed - indexed for MEDLINE]

- 13. [First successful bone marrow transplantation for X-linked chronic granulomatous disease by using preimplantation female gender typing and HLA matching.](#)  
Reichenbach J, Van de Velde H, De Rycke M, Staessen C, Platteau P, Baetens P, Güngör T, Ozsahin H, Scherer F, Siler U, Seger RA, Liebaers I.  
Pediatrics. 2008 Sep;122(3):e778-82.  
PMID: 18762514 [PubMed - indexed for MEDLINE] **Free Article**
- 14. [Complex management of a patient with a contiguous Xp11.4 gene deletion involving ornithine transcarbamylase: a role for detailed molecular analysis in complex presentations of classical diseases.](#)  
Deardorff MA, Gaddipati H, Kaplan P, Sanchez-Lara PA, Sondheimer N, Spinner NB, Hakonarson H, Ficicioglu C, Ganesh J, Markello T, Loecheit B, Zand DJ, Yudkoff M, Lichter-Konecki U.  
Mol Genet Metab. 2008 Aug;94(4):498-502. Epub 2008 Jun 3.  
PMID: 18524659 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 15. [Adult onset X-linked chronic granulomatous disease in a woman patient caused by a de novo mutation in paternal-origin CYBB gene and skewed inactivation of normal maternal X chromosome.](#)  
Gono T, Yazaki M, Agematsu K, Matsuda M, Yasui K, Yamaura M, Hidaka F, Mizukami T, Nunoi H, Kubota T, Ikeda S.  
Intern Med. 2008;47(11):1053-6. Epub 2008 Jun 2.  
PMID: 18520120 [PubMed - indexed for MEDLINE] **Free Article**
- 16. [A novel mutation of the CYBB gene resulting in severe form of X-linked chronic granulomatous disease.](#)  
Jirapongsananuruk O, Noack D, Boonchoo S, Thepthai C, Chokeyhaibulkit K, Visitsunthorn N, Vichyanond P, Luangwedchakarn V, Likasitwattanakul S, Piboonpocanun S.  
Asian Pac J Allergy Immunol. 2007 Dec;25(4):249-52.  
PMID: 18402299 [PubMed - indexed for MEDLINE] **Free Article**
- 17. [Transfusion support for a patient with McLeod phenotype without chronic granulomatous disease and with antibodies to Kx and Km.](#)  
Bansal I, Jeon HR, Hui SR, Calhoun BW, Manning DW, Kelly TJ, Lee S, Baron BW.  
Vox Sang. 2008 Apr;94(3):216-20. Epub 2007 Dec 18.  
PMID: 18167163 [PubMed - indexed for MEDLINE]
- 18. [Correction of chronic granulomatous disease after second unrelated-donor umbilical cord blood transplantation.](#)  
Parikh SH, Szabolcs P, Prasad VK, Lakshminarayanan S, Martin PL, Driscoll TA, Kurtzberg J.  
Pediatr Blood Cancer. 2007 Dec;49(7):982-4.  
PMID: 17941061 [PubMed - indexed for MEDLINE]
- 19. [Basidiomycetous fungal Inonotus tropicalis sacral osteomyelitis in X-linked chronic granulomatous disease.](#)  
Davis CM, Noroski LM, Dishop MK, Sutton DA, Braverman RM, Paul ME, Rosenblatt HM.  
Pediatr Infect Dis J. 2007 Jul;26(7):655-6.  
PMID: 17596815 [PubMed - indexed for MEDLINE]
- 20. [Treatment of profound anemia with erythropoietin and steroids in a patient with X-linked chronic granulomatous disease associated with MacLeod erythrocyte phenotype.](#)  
Aouba A, Terrier B, Arlet JB, Aaron L, Suarez F, Lefrère F, Hermine O.  
Am J Hematol. 2007 Aug;82(8):773-4. No abstract available.  
PMID: 17580332 [PubMed - indexed for MEDLINE]
- 21. [Mutations of chronic granulomatous disease in Turkish families.](#)  
Köker MY, Sanal O, De Boer M, Tezcan I, Metin A, Ersoy F, Roos D.  
Eur J Clin Invest. 2007 Jul;37(7):589-95.  
PMID: 17576211 [PubMed - indexed for MEDLINE]
- 22. [BCG-osis and tuberculosis in a child with chronic granulomatous disease.](#)  
Bustamante J, Aksu G, Vogt G, de Beaucoudrey L, Genel F, Chapgier A, Filipe-Santos O, Feinberg J, Emile JF, Kutukculer N, Casanova JL.  
J Allergy Clin Immunol. 2007 Jul;120(1):32-8. Epub 2007 Jun 4.  
PMID: 17544093 [PubMed - indexed for MEDLINE]
- 23. [X-linked chronic granulomatous disease \(CGD\) caused by an intra-exonic splice mutation \(CYBB exon 3, c.262G->A\) is mimicking juvenile sarcoidosis.](#)  
Brunner J, Dockter G, Rösen-Wolff A, Roesler J.  
Clin Exp Rheumatol. 2007 Mar-Apr;25(2):336-8.  
PMID: 17543165 [PubMed - indexed for MEDLINE]
- 24. [Insights into extensive deletions around the XK locus associated with McLeod phenotype and characterization of two novel cases.](#)  
Peng J, Redman CM, Wu X, Song X, Walker RH, Westhoff CM, Lee S.  
Gene. 2007 May 1;392(1-2):142-50. Epub 2007 Jan 11.  
PMID: 17300882 [PubMed - indexed for MEDLINE] **Free PMC Article**

- [Serratia marcescens osteomyelitis in an infant.](#)
- 25. Mayer CW, Bangash S, Bocchini JA Jr, Lowery-Nordberg M, Bahna SL.  
Allergy Asthma Proc. 2006 Nov-Dec;27(6):544-8.  
PMID: 17176793 [PubMed - indexed for MEDLINE]
- [\[Report of a new mutation in CYBB gene in two patients with X linked chronic granulomatous disease\].](#)
- 26. Agudelo-Flórez P, Navarro S, Luttges P, López JA, Norambuena X, Navarrete S CL, Quezada A, Spencer M, Condino-Neto A, Comejo de M.  
Rev Med Chil. 2006 Aug;134(8):965-72. Epub 2006 Nov 14. Spanish.  
PMID: 17130983 [PubMed - indexed for MEDLINE] **Free Article**
- [Penicillium piceum infection: diagnosis and successful treatment in chronic granulomatous disease.](#)
- 27. Santos PE, Piontelli E, Shea YR, Galluzzo ML, Holland SM, Zelazko ME, Rosenzweig SD.  
Med Mycol. 2006 Dec;44(8):749-53.  
PMID: 17127632 [PubMed - indexed for MEDLINE]
- [Severe X-linked chronic granulomatous disease in two unrelated females.](#)
- 28. Chollet-Martin S, Lopez A, Gaud C, Henry D, Stos B, El Benna J, Chedevile G, Gendrel D, Gougerot-Pocidalo MA, Grandchamp B, Gérard B.  
Eur J Pediatr. 2007 Feb;166(2):153-9. Epub 2006 Nov 3.  
PMID: 17089090 [PubMed - indexed for MEDLINE]
- [In-utero pericardiocentesis to treat fetal hydrops caused by X-linked chronic granulomatous disease.](#)
- 29. Michailidis GD, Hourihane JO, Sievers R, O'Donnell AI, Howe DT.  
Ultrasound Obstet Gynecol. 2006 Jul;28(1):117-9. No abstract available.  
PMID: 16795136 [PubMed - indexed for MEDLINE] **Free Article**
- [Allogeneic bone marrow transplantation with reduced intensity conditioning for chronic granulomatous disease complicated by invasive Aspergillus infection.](#)
- 30. Sastry J, Kakakios A, Tugwell H, Shaw PJ.  
Pediatr Blood Cancer. 2006 Sep;47(3):327-9.  
PMID: 16628555 [PubMed - indexed for MEDLINE]
- [A novel bacterium associated with lymphadenitis in a patient with chronic granulomatous disease.](#)
- 31. Greenberg DE, Ding L, Zelazny AM, Stock F, Wong A, Anderson VL, Miller G, Kleiner DE, Tenorio AR, Brinster L, Dorward DW, Murray PR, Holland SM.  
PLoS Pathog. 2006 Apr;2(4):e28. Epub 2006 Apr 14.  
PMID: 16617373 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Outpatient treatment with corticosteroids and antibiotics for acalculous cholecystitis in chronic granulomatous disease.](#)
- 32. Rojo P, Ruiz-Contreras J, Gonzalez-Tome M, Serrano C, Marin MA.  
Acta Paediatr. 2005 Nov;94(11):1684-6.  
PMID: 16303712 [PubMed - indexed for MEDLINE]
- [Cutaneous alternariosis with chronic granulomatous disease.](#)
- 33. Uenotsuchi T, Moroi Y, Urabe K, Fukagawa S, Tsuji G, Matsuda T, Furue M.  
Eur J Dermatol. 2005 Sep-Oct;15(5):406-8.  
PMID: 16172055 [PubMed - indexed for MEDLINE] **Free Article**
- [Successful treatment of Paecilomyces variotii splenic abscesses: a rare complication in a previously unrecognized chronic granulomatous disease child.](#)
- 34. Wang SM, Shieh CC, Liu CC.  
Diagn Microbiol Infect Dis. 2005 Oct;53(2):149-52. Epub 2005 Sep 15.  
PMID: 16168619 [PubMed - indexed for MEDLINE]
- [Acute lymphoblastic leukemia in a patient with chronic granulomatous disease and a novel mutation in CYBB: first report.](#)
- 35. Wolach B, Ash S, Gavrieli R, Stark B, Yaniv I, Roos D.  
Am J Hematol. 2005 Sep;80(1):50-4.  
PMID: 16138344 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease presenting with disseminated intracranial aspergillosis.](#)
- 36. Alsultan A, Williams MS, Lubner S, Goldman FD.  
Pediatr Blood Cancer. 2006 Jul;47(1):107-10. Review.  
PMID: 15931655 [PubMed - indexed for MEDLINE]
- [Lupus erythematosus-like lesions in a carrier of X-linked chronic granulomatous disease: a case report and personal considerations.](#)
- 37. Foti C, Cassano N, Martire B, Filotico R, Mastrandrea V, Vena GA.  
Int J Dermatol. 2004 Nov;43(11):840-2. No abstract available.  
PMID: 15533069 [PubMed - indexed for MEDLINE]
- [\[Autosomal chronic granulomatous disease: case report and mutation analysis of two Brazilian siblings\].](#)

38. Prando-Andrade C, Agudelo-Florez P, Lopez JA, Paiva MA, Costa-Carvalho BT, Condino-Neto A. *J Pediatr (Rio J)*. 2004 Sep-Oct;80(5):425-8. Portuguese.  
PMID: 15505740 [PubMed - indexed for MEDLINE] **Free Article**
- [X-linked chronic granulomatous disease: report of one case.](#)
39. Weng JD, Shyr SD. *Acta Paediatr Taiwan*. 2004 May-Jun;45(3):163-7.  
PMID: 15493736 [PubMed - indexed for MEDLINE]
- [Molecular characterization of a novel splice site mutation within the CYBB gene leading to X-linked chronic granulomatous disease.](#)
40. Barese CN, Copelli SB, De Matteo E, Zandomeni R, Salgueiro F, Di Giovanni D, Heyworth P, Rivas EM. *Pediatr Blood Cancer*. 2005 Apr;44(4):420-2.  
PMID: 15468310 [PubMed - indexed for MEDLINE]
- [Unusual late presentation of X-linked chronic granulomatous disease in an adult female with a somatic mosaic for a novel mutation in CYBB.](#)
41. Wolach B, Scharf Y, Gavrieli R, de Boer M, Roos D. *Blood*. 2005 Jan 1;105(1):61-6. Epub 2004 Aug 12.  
PMID: 15308575 [PubMed - indexed for MEDLINE] **Free Article**
- [Chronic granulomatous disease caused by a deficiency in p47\(phox\) mimicking Crohn's disease.](#)
42. Huang JS, Noack D, Rae J, Ellis BA, Newbury R, Pong AL, Lavine JE, Curnutte JT, Bastian J. *Clin Gastroenterol Hepatol*. 2004 Aug;2(8):690-5.  
PMID: 15290662 [PubMed - indexed for MEDLINE]
- [\[Late onset of a chronic septic granulomatous disease\].](#)
43. Kharfi M, Benmously R, Khaled A, Daoued B, Kamoun MR. *Ann Dermatol Venereol*. 2004 Apr;131(4):375-8. French.  
PMID: 15258513 [PubMed - indexed for MEDLINE]
- [Recurrent eosinophilic cystitis in a child with chronic granulomatous disease.](#)
44. Barese CN, Podestá M, Litvak E, Villa M, Rivas EM. *J Pediatr Hematol Oncol*. 2004 Mar;26(3):209-12. Review.  
PMID: 15125617 [PubMed - indexed for MEDLINE]
- [Molecular analysis of X-linked chronic granulomatous disease in five unrelated Korean patients.](#)
45. Oh HB, Park JS, Lee W, Yoo SJ, Yang JH, Oh SY. *J Korean Med Sci*. 2004 Apr;19(2):218-22.  
PMID: 15082894 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Association of glucose-6-phosphate dehydrogenase deficiency and X-linked chronic granulomatous disease in a child with anemia and recurrent infections.](#)
46. Agudelo-Flórez P, Costa-Carvalho BT, López JA, Redher J, Newburger PE, Olalla-Saad ST, Condino-Neto A. *Am J Hematol*. 2004 Mar;75(3):151-6.  
PMID: 14978696 [PubMed - indexed for MEDLINE]
- [Severe phenotype of chronic granulomatous disease presenting in a female with a de novo mutation in gp91-phox and a non familial, extremely skewed X chromosome inactivation.](#)
47. Anderson-Cohen M, Holland SM, Kuhns DB, Fleisher TA, Ding L, Brenner S, Malech HL, Roesler J. *Clin Immunol*. 2003 Dec;109(3):308-17.  
PMID: 14697745 [PubMed - indexed for MEDLINE]
- [Rapid prenatal diagnosis of X-linked chronic granulomatous disease using a denaturing high-performance liquid chromatography \(DHPLC\) system.](#)
48. Chien SC, Lee CN, Hung CC, Tsao PN, Su YN, Hsieh FJ. *Prenat Diagn*. 2003 Dec 30;23(13):1092-6.  
PMID: 14691999 [PubMed - indexed for MEDLINE]
- [Underlying chronic granulomatous disease in a patient with bronchocentric granulomatosis.](#)
49. Molyaner Y, Geerts WH, Chamberlain DW, Heyworth PG, Noack D, Rae J, Doyle JJ, Downey GP. *Thorax*. 2003 Dec;58(12):1096-8.  
PMID: 14645984 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Therapeutic effect of interferon-gamma for prevention of severe infection in X-linked chronic granulomatous disease.](#)
50. Ma HR, Mu SC, Yang YH, Chen CM, Chiang BL. *J Formos Med Assoc*. 2003 Mar;102(3):189-92.  
PMID: 12783137 [PubMed - indexed for MEDLINE]
- [Allogeneic stem cell transplant from HLA-identical sibling for chronic granulomatous disease and review of the literature.](#)
51. Del Giudice I, Iori AP, Mengarelli A, Testi AM, Romano A, Cerretti R, Macri F, Iacobini M, Arcese W. *Ann Hematol*. 2003 Mar;82(3):189-92. Epub 2003 Feb 12. Review.



PMID: 12634956 [PubMed - indexed for MEDLINE]

- 52. [Diagnostic paradigm for evaluation of male patients with chronic granulomatous disease, based on the dihydrorhodamine 123 assay.](#)  
Jirapongsananuruk O, Malech HL, Kuhns DB, Niemela JE, Brown MR, Anderson-Cohen M, Fleisher TA.  
J Allergy Clin Immunol. 2003 Feb;111(2):374-9.  
PMID: 12589359 [PubMed - indexed for MEDLINE]
- 53. [IgA nephropathy in a patient with chronic granulomatous disease.](#)  
Narsipur SS, Shanley PF.  
J Nephrol. 2002 Nov-Dec;15(6):713-5.  
PMID: 12495290 [PubMed - indexed for MEDLINE]
- 54. [Evidence consistent with human L1 retrotransposition in maternal meiosis I.](#)  
Brouha B, Meischl C, Ostertag E, de Boer M, Zhang Y, Neijens H, Roos D, Kazazian HH Jr.  
Am J Hum Genet. 2002 Aug;71(2):327-36. Epub 2002 Jul 1.  
PMID: 12094329 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 55. [Fatal disseminated Candida lusitanae infection in an infant with chronic granulomatous disease.](#)  
Levy O, Bourquin JP, McQueen A, Cantor AB, Lachenauer C, Malley R.  
Pediatr Infect Dis J. 2002 Mar;21(3):262-4.  
PMID: 12005097 [PubMed - indexed for MEDLINE]
- 56. [Molecular and functional characterization of a new X-linked chronic granulomatous disease variant \(X91+\) case with a double missense mutation in the cytosolic gp91phox C-terminal tail.](#)  
Stasia MJ, Lardy B, Maturana A, Rousseau P, Martel C, Bordigoni P, Demareux N, Morel F.  
Biochim Biophys Acta. 2002 Apr 24;1586(3):316-30.  
PMID: 11997083 [PubMed - indexed for MEDLINE]
- 57. [Molecular quality control machinery contributes to the leukocyte NADPH oxidase deficiency in chronic granulomatous disease.](#)  
Lin SJ, Huang YF, Chen JY, Heyworth PG, Noack D, Wang JY, Lin CY, Chiang BL, Yang CM, Liu CC, Shieh CC.  
Biochim Biophys Acta. 2002 Apr 24;1586(3):275-86.  
PMID: 11997079 [PubMed - indexed for MEDLINE]
- 58. [An unusual intronic mutation in the CYBB gene giving rise to chronic granulomatous disease.](#)  
Noack D, Heyworth PG, Newburger PE, Cross AR.  
Biochim Biophys Acta. 2001 Sep 28;1537(2):125-31.  
PMID: 11566256 [PubMed - indexed for MEDLINE]
- 59. [A second case of somatic triple mosaicism in the CYBB gene causing chronic granulomatous disease.](#)  
Noack D, Heyworth PG, Kyono W, Cross AR.  
Hum Genet. 2001 Aug;109(2):234-8.  
PMID: 11511930 [PubMed - indexed for MEDLINE]
- 60. [Disseminated nocardiosis in a patient with X-linked chronic granulomatous disease and human immunodeficiency virus infection.](#)  
Sereti I, Holland SM.  
Clin Infect Dis. 2001 Jul 15;33(2):235-9. Epub 2001 Jun 15.  
PMID: 11418884 [PubMed - indexed for MEDLINE] **Free Article**
- 61. [Lupus erythematosus-like lesions in a carrier of X-linked chronic granulomatous disease.](#)  
Córdoba-Guijarro S, Feal C, Daudén E, Fraga J, García-Díez A.  
J Eur Acad Dermatol Venereol. 2000 Sep;14(5):409-11. Review.  
PMID: 11305387 [PubMed - indexed for MEDLINE]
- 62. [Increased susceptibility of a carrier of X-linked chronic granulomatous disease \(CGD\) to Aspergillus fumigatus infection associated with age-related skewing of lyonization.](#)  
Rösen-Wolff A, Soldan W, Heyne K, Bickhardt J, Gahr M, Roesler A.  
Ann Hematol. 2001 Feb;80(2):113-5.  
PMID: 11261321 [PubMed - indexed for MEDLINE]
- 63. [Successful treatment of invasive aspergillosis in chronic granulomatous disease by granulocyte transfusions followed by peripheral blood stem cell transplantation.](#)  
Bielorai B, Toren A, Wolach B, Mandel M, Golan H, Neumann Y, Kaplinisky C, Weintraub M, Keller N, Amariglio N, Paswell J, Rechavi G.  
Bone Marrow Transplant. 2000 Nov;26(9):1025-8.  
PMID: 11100285 [PubMed - indexed for MEDLINE] **Free Article**
- 64. [The dermatosis of chronic granulomatous disease.](#)  
Chowdhury MM, Anstey A, Matthews CN.  
Clin Exp Dermatol. 2000 May;25(3):190-4. Review.  
PMID: 10844491 [PubMed - indexed for MEDLINE]

65. [Lupus erythematosus tumidus and chronic discoid lupus erythematosus in carriers of X-linked chronic granulomatous disease.](#)  
Rupec RA, Petropoulou T, Belohradsky BH, Walchner M, Liese JG, Plewing G, Messer G.  
Eur J Dermatol. 2000 Apr-May;10(3):184-9. Review.  
PMID: 10725815 [PubMed - indexed for MEDLINE] [Free Article](#)
66. [Respiratory burst activity in late pregnancy in a carrier of X-linked chronic granulomatous disease.](#)  
Iacobini M, Torre A, Macri F, Werner B, Chiesa C.  
Haematologica. 2000 Jan;85(1):110-1. No abstract available.  
PMID: 10629609 [PubMed - indexed for MEDLINE] [Free Article](#)
67. [Successful treatment with methylprednisolone pulse therapy for a life-threatening pulmonary insufficiency in a patient with chronic granulomatous disease following pulmonary invasive aspergillosis and Burkholderia cepacia infection.](#)  
Okano M, Yamada M, Ohtsu M, Kawamura N, Sakiyama Y, Aoi K, Gandoh S, Fujita M, Kobayashi K.  
Respiration. 1999 Nov-Dec;66(6):551-4.  
PMID: 10575344 [PubMed - indexed for MEDLINE] [Free Article](#)
68. [Nocardia farcinica pneumonia in chronic granulomatous disease.](#)  
Shetty AK, Arvin AM, Gutierrez KM.  
Pediatrics. 1999 Oct;104(4 Pt 1):961-4. Review.  
PMID: 10506241 [PubMed - indexed for MEDLINE]
69. [Bone marrow transplantation for chronic granulomatous disease: long-term follow-up and review of literature.](#)  
Leung T, Chik K, Li C, Shing M, Yuen P.  
Bone Marrow Transplant. 1999 Sep;24(5):567-70. Review.  
PMID: 10482944 [PubMed - indexed for MEDLINE] [Free Article](#)
70. [A novel mutation in the CYBB gene resulting in an unexpected pattern of exon skipping and chronic granulomatous disease.](#)  
Noack D, Heyworth PG, Cumutte JT, Rae J, Cross AR.  
Biochim Biophys Acta. 1999 Aug 30;1454(3):270-4.  
PMID: 10452961 [PubMed - indexed for MEDLINE]
71. [Missense mutations in the gp91-phox gene encoding cytochrome b558 in patients with cytochrome b positive and negative X-linked chronic granulomatous disease.](#)  
Kaneda M, Sakuraba H, Ohtake A, Nishida A, Kiryu C, Kakinuma K.  
Blood. 1999 Mar 15;93(6):2098-104.  
PMID: 10068684 [PubMed - indexed for MEDLINE] [Free Article](#)
72. [Chronic granulomatous disease: six new cases.](#)  
Martín Mateos MA, Alvaro M, Giner MT, Plaza AM, Sierra JI, Muñoz-López F.  
Allergol Immunopathol (Madr). 1998 Sep-Oct;26(5):241-9.  
PMID: 9885732 [PubMed - indexed for MEDLINE] [Free Article](#)
73. [A novel mutation at a probable heme-binding ligand in neutrophil cytochrome b558 in atypical X-linked chronic granulomatous disease.](#)  
Tsuda M, Kaneda M, Sakiyama T, Inana I, Owada M, Kiryu C, Shiraishi T, Kakinuma K.  
Hum Genet. 1998 Oct;103(4):377-81.  
PMID: 9856476 [PubMed - indexed for MEDLINE]
74. [Mutation at histidine 338 of gp91\(phox\) depletes FAD and affects expression of cytochrome b558 of the human NADPH oxidase.](#)  
Yoshida LS, Saruta F, Yoshikawa K, Tatsuzawa O, Tsunawaki S.  
J Biol Chem. 1998 Oct 23;273(43):27879-86.  
PMID: 9774399 [PubMed - indexed for MEDLINE] [Free Article](#)
75. [Successful treatment of invasive aspergillosis in chronic granulomatous disease by bone marrow transplantation, granulocyte colony-stimulating factor-mobilized granulocytes, and liposomal amphotericin-B.](#)  
Ozsahin H, von Planta M, Müller I, Steinert HC, Nadal D, Lauener R, Tuchschnid P, Willi UV, Ozsahin M, Crompton NE, Seger RA.  
Blood. 1998 Oct 15;92(8):2719-24.  
PMID: 9763555 [PubMed - indexed for MEDLINE] [Free Article](#)
76. [Successful polymerase chain reaction-based diagnosis of fungal meningitis in a patient with chronic granulomatous disease.](#)  
Tsuge I, Makimura K, Natsume J, Kubota T, Hasegawa S, Kawabe T, Nakashima S, Aso K, Negoro T, Watanabe K.  
Acta Paediatr Jpn. 1998 Aug;40(4):356-9.  
PMID: 9745780 [PubMed - indexed for MEDLINE]
77. [Oesophageal narrowing in chronic granulomatous disease.](#)  
Ruiz-Contreras J, Bastero R, Serrano C, Benavent MI, Martinez A.  
Eur J Radiol. 1998 May;27(2):149-52.  
PMID: 9639141 [PubMed - indexed for MEDLINE]
78. [Somatic triple mosaicism in a carrier of X-linked chronic granulomatous disease.](#)  
de Boer M, Bakker E, Van Lierde S, Roos D.



Blood. 1998 Jan 1;91(1):252-7.

PMID: 9414292 [PubMed - indexed for MEDLINE] **Free Article**

79. [A 25-kb deletion in the 5' region of the cytochrome b558 heavy chain gene \(CYBB\) in a patient with X-linked chronic granulomatous disease.](#)  
Faizunnessa NN, Tsuchiya T, Kumatori A, Kurozumi H, Imajoh-Ohmi S, Kanegasaki S, Nakamura M.  
Hum Genet. 1997 Apr;99(4):469-73.  
PMID: 9099835 [PubMed - indexed for MEDLINE]
80. [Chronic granulomatous disease in two children with recurrent infections: family studies using dihydrorhodamine-based flow cytometry.](#)  
Atkinson TP, Bonitatibus GM, Berkow RL.  
J Pediatr. 1997 Mar;130(3):488-91.  
PMID: 9063432 [PubMed - indexed for MEDLINE]
81. [An in-frame triplet deletion within the gp91-phox gene in an adult X-linked chronic granulomatous disease patient with residual NADPH-oxidase activity.](#)  
Jendrossek V, Ritzel A, Neubauer B, Heyden S, Gahr M.  
Eur J Haematol. 1997 Feb;58(2):78-85.  
PMID: 9111587 [PubMed - indexed for MEDLINE]
82. [Lupus like lesions in a patient with X-linked chronic granulomatous disease and recombinant X chromosome.](#)  
Ortiz-Romero PL, Corell-Almuzara A, Lopez-Estebarez JL, Arranz FR, Ruiz-Contreras J.  
Dermatology. 1997;195(3):280-3.  
PMID: 9407182 [PubMed - indexed for MEDLINE]
83. [Bone marrow transplantation in chronic granulomatous disease.](#)  
Calviño MC, Maldonado MS, Otheo E, Muñoz A, Couselo JM, Burgaleta C.  
Eur J Pediatr. 1996 Oct;155(10):877-9.  
PMID: 8891557 [PubMed - indexed for MEDLINE]
84. [Successful bone marrow transplantation in a child with X-linked chronic granulomatous disease.](#)  
Ho CM, Vowels MR, Lockwood L, Ziegler JB.  
Bone Marrow Transplant. 1996 Jul;18(1):213-5. Review.  
PMID: 8832019 [PubMed - indexed for MEDLINE]
85. [Molecular analysis in three cases of X91- variant chronic granulomatous disease.](#)  
Bu-Ghanim HN, Segal AW, Keep NH, Casimir CM.  
Blood. 1995 Nov 1;86(9):3575-82.  
PMID: 7579466 [PubMed - indexed for MEDLINE] **Free Article**
86. [A 15-base pair \(bp\) palindromic insertion associated with a 3-bp deletion in exon 10 of the gp91-phox gene, detected in two patients with X-linked chronic granulomatous disease.](#)  
Ariga T, Sakiyama Y, Matsumoto S.  
Hum Genet. 1995 Jul;96(1):6-8.  
PMID: 7607656 [PubMed - indexed for MEDLINE]
87. [Treatment with granulocyte colony-stimulating factor for pneumonia in a patient with a variant form of X-linked chronic granulomatous disease.](#)  
Fukuda T, Kitagawa S, Azuma E, Yuo A, Kawamata N, Miki T, Hirotsawa S, Aoki N.  
Eur J Haematol. 1995 Jul;55(1):63-4. No abstract available.  
PMID: 7542203 [PubMed - indexed for MEDLINE]
88. [A new mutation in exon 12 of the gp91-phox gene leading to cytochrome b-positive X-linked chronic granulomatous disease.](#)  
Azuma H, Oomi H, Sasaki K, Kawabata I, Sakaino T, Koyano S, Suzutani T, Nuno H, Okuno A.  
Blood. 1995 Jun 1;85(11):3274-7.  
PMID: 7756659 [PubMed - indexed for MEDLINE] **Free Article**
89. [Unexplained recurrent pneumonia: a post-childhood case of chronic granulomatous disease.](#)  
Dees A, Weening RS, de Boer M, Baggen MG.  
Neth J Med. 1995 Apr;46(4):193-6. Review.  
PMID: 7760970 [PubMed - indexed for MEDLINE]
90. [Immunocytochemical detection of lipid peroxidation in phagosomes of human neutrophils: correlation with expression of flavocytochrome b.](#)  
Quinn MT, Linner JG, Siemsen D, Dratz EA, Buescher ES, Jesaitis AJ.  
J Leukoc Biol. 1995 Mar;57(3):415-21.  
PMID: 7884312 [PubMed - indexed for MEDLINE] **Free Article**
91. [A new X-linked variant of chronic granulomatous disease characterized by the existence of a normal clone of respiratory burst-competent phagocytic cells.](#)

- Woodman RC, Newburger PE, Anklesaria P, Erickson RW, Rae J, Cohen MS, Cumutte JT.  
Blood. 1995 Jan 1;85(1):231-41.  
PMID: 7803797 [PubMed - indexed for MEDLINE] [Free Article](#)
92. [Chronic granulomatous disease and glutathione peroxidase deficiency, revisited.](#)  
Newburger PE, Malawista SE, Dinauer MC, Gelbart T, Woodman RC, Chada S, Shen Q, van Blaricom G, Quie PG, Cumutte JT.  
Blood. 1994 Dec 1;84(11):3861-9.  
PMID: 7949143 [PubMed - indexed for MEDLINE] [Free Article](#)
93. [Infection with Pseudomonas cepacia in chronic granulomatous disease: role of nonoxidative killing by neutrophils in host defense.](#)  
Speert DP, Bond M, Woodman RC, Cumutte JT.  
J Infect Dis. 1994 Dec;170(6):1524-31.  
PMID: 7527826 [PubMed - indexed for MEDLINE] [Free Article](#)
94. [Evaluation of flow cytometric methods for diagnosis of chronic granulomatous disease variants under routine laboratory conditions.](#)  
Emmendorffer A, Nakamura M, Rothe G, Spiekermann K, Lohmann-Matthes ML, Roesler J.  
Cytometry. 1994 Sep 15;18(3):147-55.  
PMID: 7813334 [PubMed - indexed for MEDLINE]
95. [Polyarthritis resembling juvenile rheumatoid arthritis in a girl with chronic granulomatous disease.](#)  
Lee BW, Yap HK.  
Arthritis Rheum. 1994 May;37(5):773-6.  
PMID: 8185706 [PubMed - indexed for MEDLINE]
96. [A point mutation in gp91-phox of cytochrome b558 of the human NADPH oxidase leading to defective translocation of the cytosolic proteins p47-phox and p67-phox.](#)  
Leusen JH, de Boer M, Bolscher BG, Hilarius PM, Weening RS, Ochs HD, Roos D, Verhoeven AJ.  
J Clin Invest. 1994 May;93(5):2120-6.  
PMID: 8182143 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
97. [Successful interferon gamma therapy in a patient with X-linked chronic granulomatous disease, McLeod syndrome and hyper-IgE. Case report.](#)  
Kantar A, Oggiano N, Gabbianelli R, Fabrizzi G, Giorgi PL.  
Minerva Pediatr. 1994 Apr;46(4):157-60.  
PMID: 8084323 [PubMed - indexed for MEDLINE]
98. [\[DNA analysis of cytochrome b positive chronic granulomatous disease \(a case report\)\].](#)  
Azuma H.  
Rinsho Byori. 1994 Mar;42(3):242-8. Japanese.  
PMID: 8152159 [PubMed - indexed for MEDLINE]
99. [Production of oxygen radicals by fibroblasts and neutrophils from a patient with x-linked chronic granulomatous disease.](#)  
Emmendorffer A, Roesler J, Elsner J, Raeder E, Lohmann-Matthes ML, Meier B.  
Eur J Haematol. 1993 Oct;51(4):223-7.  
PMID: 8243611 [PubMed - indexed for MEDLINE]
100. [A 40-base-pair duplication in the gp91-phox gene leading to X-linked chronic granulomatous disease.](#)  
Rabbani H, de Boer M, Ahlin A, Sundin U, Elinder G, Hammarström L, Palmblad J, Smith CI, Roos D.  
Eur J Haematol. 1993 Oct;51(4):218-22.  
PMID: 7694872 [PubMed - indexed for MEDLINE]
101. [A newly recognized point mutation in the cytochrome b558 heavy chain gene replacing alanine57 by glutamic acid, in a patient with cytochrome b positive X-linked chronic granulomatous disease.](#)  
Ariga T, Sakiyama Y, Tomizawa K, Imajoh-Ohmi S, Kanegasaki S, Matsumoto S.  
Eur J Pediatr. 1993 Jun;152(6):469-72.  
PMID: 8101486 [PubMed - indexed for MEDLINE]
102. [Outpatient management with oral corticosteroid therapy for obstructive conditions in chronic granulomatous disease.](#)  
Danziger RN, Goren AT, Becker J, Greene JM, Douglas SD.  
J Pediatr. 1993 Feb;122(2):303-5.  
PMID: 8429451 [PubMed - indexed for MEDLINE]
103. [Discoïd lupus erythematosus-like lesions in carriers of X-linked chronic granulomatous disease.](#)  
Hafner J, Enderlin A, Seger RA, Wüthrich B, Bruckner-Tudermann L, Panizzoni P, Burg G.  
Br J Dermatol. 1992 Oct;127(4):446-7. No abstract available.  
PMID: 1419770 [PubMed - indexed for MEDLINE]
104. [Cytochrome b positive X-linked chronic granulomatous disease: a normal cell surface expression of cytochrome b.](#)  
Azuma H, Oomi H, Ueda D, Sasaki K, Makita Y, Tomizawa K, Sakiyama Y, Fujita K, Yoshioka H, Okuno A.  
Eur J Pediatr. 1992 Apr;151(4):279-82.  
PMID: 1323464 [PubMed - indexed for MEDLINE]

- [Genetic study of a new X-linked recessive immunodeficiency syndrome.](#)
- 105. de Saint-Basile G, Le Deist F, Caniglia M, Lebranchu Y, Griscelli C, Fischer A.  
J Clin Invest. 1992 Mar;89(3):861-6.  
PMID: 1347296 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Chronic granulomatous disease with partial deficiency of cytochrome b558 and incomplete respiratory burst: variants of the X-linked, cytochrome b558-negative form of the disease.](#)
- 106. Roos D, de Boer M, Borregard N, Bjerrum OW, Valerius NH, Seger RA, Mühlebach T, Belohradsky BH, Weening RS.  
J Leukoc Biol. 1992 Feb;51(2):164-71.  
PMID: 1431553 [PubMed - indexed for MEDLINE] **Free Article**
- [Disseminated Nocardia transvalensis infection: an unusual opportunistic pathogen in severely immunocompromised patients.](#)
- 107. McNeil MM, Brown JM, Magruder CH, Shearlock KT, Saul RA, Allred DP, Ajello L.  
J Infect Dis. 1992 Jan;165(1):175-8.  
PMID: 1727888 [PubMed - indexed for MEDLINE] **Free Article**
- [Discoïd lupus erythematosus in an X-linked cytochrome-positive carrier of chronic granulomatous disease.](#)
- 108. Yeaman GR, Froebel K, Galea G, Ormerod A, Urbaniak SJ.  
Br J Dermatol. 1992 Jan;126(1):60-5.  
PMID: 1536763 [PubMed - indexed for MEDLINE]
- [Kinetics of transfused neutrophils in peripheral blood and BAL fluid of a patient with variant X-linked chronic granulomatous disease.](#)
- 109. Emmendorffer A, Lohmann-Matthes ML, Roesler J.  
Eur J Haematol. 1991 Oct;47(4):246-52.  
PMID: 1954982 [PubMed - indexed for MEDLINE]
- [Granulocyte-macrophage colony stimulating factor does not improve neutrophil oxidative metabolism in a patient with variant X-linked chronic granulomatous disease.](#)
- 110. Mühlebach TJ, Feickert HJ, Welte K, Seger RA.  
Eur J Pediatr. 1991 Jun;150(8):575-8.  
PMID: 1659535 [PubMed - indexed for MEDLINE]
- [Caseating cutaneous granulomas in a patient with X-linked infantile hypogammaglobulinemia.](#)
- 111. Fleming MG, Gewurz AT, Pearson RW.  
J Am Acad Dermatol. 1991 Apr;24(4):629-33.  
PMID: 2033143 [PubMed - indexed for MEDLINE]
- [Autosomal recessive chronic granulomatous disease associated with 18q-syndrome and end-stage renal failure due to Henoch-Schönlein nephritis.](#)
- 112. Kimpen J, Van Damme-Lombaerts R, Van den Berghe G, Proesmans W.  
Eur J Pediatr. 1991 Mar;150(5):325-6.  
PMID: 2044603 [PubMed - indexed for MEDLINE]
- [Systemic lupus erythematosus in a boy with chronic granulomatous disease: case report and review of the literature.](#)
- 113. Manzi S, Urbach AH, McCune AB, Altman HA, Kaplan SS, Medsger TA Jr, Ramsey-Goldman R.  
Arthritis Rheum. 1991 Jan;34(1):101-5. Review.  
PMID: 1984766 [PubMed - indexed for MEDLINE]
- [Atypical X-linked variant of chronic granulomatous disease.](#)
- 114. Wilson AG, Munro DD, Walker-Smith JA.  
J R Soc Med. 1990 Dec;83(12):801-2. No abstract available.  
PMID: 2269970 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [\[Chronic recurrent aphthous stomatitis in a 15-year-old carrier of x-chromosome inherited cytochrome b558-negative septic granulomatosis\].](#)
- 115. Roesler J, Melter M, Emmendorffer A, Rohde S, Brodehl J.  
Monatsschr Kinderheilkd. 1990 Dec;138(12):811-3. German.  
PMID: 2087242 [PubMed - indexed for MEDLINE]
- [\[Chronic granulomatous disease and McLeod phenotype. Description of a case\].](#)
- 116. Saggese G, Baroncelli GI, Bertelloni S, Gualtieri M, Carlotti C, Cinquanta L.  
Minerva Pediatr. 1990 Apr;42(4):151-6. Italian.  
PMID: 2377152 [PubMed - indexed for MEDLINE]
- [Treatment of invasive aspergillosis with itraconazole in a patient with chronic granulomatous disease.](#)
- 117. van 't Wout JW, Raven EJ, van der Meer JW.  
J Infect. 1990 Mar;20(2):147-50.  
PMID: 2156938 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease in an adult female with granulomatous cheilitis. Evidence for an X-linked pattern of inheritance with extreme lyonization.](#)
- 118.

- Dusi S, Poli G, Berton G, Catalano P, Fomasa CV, Peserico A.  
Acta Haematol. 1990;84(1):49-56.  
PMID: 2117330 [PubMed - indexed for MEDLINE]
- [\["Pseudo-lupus" eruptions in a mother carrying X chromosome-linked chronic septic granulomatosis\].](#)
119. Cuny JF, Chauvel F, Schmutz JL, Bordigoni P, Weber M, Beurey J.  
Ann Dermatol Venereol. 1990;117(10):713-8. Review. French.  
PMID: 2073062 [PubMed - indexed for MEDLINE]
- [Dermatoses in five related female carriers of X-linked chronic granulomatous disease.](#)
120. Garioch JJ, Sampson JR, Seywright M, Thomson J.  
Br J Dermatol. 1989 Sep;121(3):391-6.  
PMID: 2803962 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease in two Chinese families.](#)
121. Lin YZ, Hsieh KH.  
Asian Pac J Allergy Immunol. 1988 Dec;6(2):121-8.  
PMID: 3219159 [PubMed - indexed for MEDLINE]
- [Xp21 DNA microdeletion in a patient with chronic granulomatous disease, retinitis pigmentosa, and McLeod phenotype.](#)
122. de Saint-Basile G, Bohler MC, Fischer A, Cartron J, Dufier JL, Griscelli C, Orkin SH.  
Hum Genet. 1988 Sep;80(1):85-9.  
PMID: 3417309 [PubMed - indexed for MEDLINE]
- [Recurrent cystitis and bladder mass in two adults with chronic granulomatous disease.](#)
123. Southwick FS, van der Meer JW.  
Ann Intern Med. 1988 Jul 15;109(2):118-21.  
PMID: 3289429 [PubMed - indexed for MEDLINE]
- [Localization of the McLeod locus \(XK\) within Xp21 by deletion analysis.](#)
124. Bertelson CJ, Pogo AO, Chaudhuri A, Marsh WL, Redman CM, Banerjee D, Symmans WA, Simon T, Frey D, Kunkel LM.  
Am J Hum Genet. 1988 May;42(5):703-11.  
PMID: 3358422 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Chronic granulomatous disease with neutrophil membrane cytochrome b deficiency: demonstration by immunochemical staining with monoclonal antibody.](#)
125. Minegishi N, Nakamura M, Suzaki K, Terasawa M, Minegishi M, Tsuchiya S, Konno T.  
Tohoku J Exp Med. 1988 Feb;154(2):143-8.  
PMID: 3381223 [PubMed - indexed for MEDLINE] **Free Article**
- [Gene deletion in a patient with chronic granulomatous disease and McLeod syndrome: fine mapping of the Xk gene locus.](#)
126. Frey D, Mächler M, Seger R, Schmid W, Orkin SH.  
Blood. 1988 Jan;71(1):252-5.  
PMID: 3334897 [PubMed - indexed for MEDLINE] **Free Article**
- [Prenatal diagnosis of X-linked chronic granulomatous disease using restriction fragment length polymorphism analysis.](#)
127. Lindlöf M, Kere J, Ristola M, Repo H, Leirisalo-Repo M, von Koskull H, Ammälä P, de la Chapelle A.  
Genomics. 1987 Sep;1(1):87-92.  
PMID: 2889663 [PubMed - indexed for MEDLINE]
- [Discoid lupus erythematosus and X-linked chronic granulomatous disease.](#)
128. Barton LL, Johnson CR.  
Pediatr Dermatol. 1986 Nov;3(5):376-9.  
PMID: 3809020 [PubMed - indexed for MEDLINE]
- [Cytochrome b and FAD content in polymorphonuclear leucocytes in a family with X-linked chronic granulomatous disease.](#)
129. Riccardi S, Giordano D, Schettini F, De Mattia D, Lovecchio T, Santoro N, Fumarulo R.  
Scand J Haematol. 1986 Oct;37(4):333-6.  
PMID: 3787183 [PubMed - indexed for MEDLINE]
- [Discoid lupus erythematosus-like skin lesions in a patient with autosomal recessive chronic granulomatous disease.](#)
130. Strate M, Brandrup F, Wang P.  
Clin Genet. 1986 Sep;30(3):184-90.  
PMID: 3780033 [PubMed - indexed for MEDLINE]
- [Fatal Aspergillus pneumonia in chronic granulomatous disease.](#)
131. Kelly JK, Pinto AR, Whitelaw WA, Rorstad OP, Bowen TJ, Matheson DS.  
Am J Clin Pathol. 1986 Aug;86(2):235-40.  
PMID: 3526863 [PubMed - indexed for MEDLINE]
- [A study of 25 patients with chronic granulomatous disease: a new classification by correlating respiratory burst, cytochrome b, and](#)

132. [flavoprotein.](#)  
Bohler MC, Seger RA, Mouy R, Vilmer E, Fischer A, Griscelli C.  
J Clin Immunol. 1986 Mar;6(2):136-45.  
PMID: 3011845 [PubMed - indexed for MEDLINE]
- [Discoid lupus erythematosus-like lesions in an autosomal form of chronic granulomatous disease.](#)
133. Stalder JF, Dreno B, Bureau B, Hakim J.  
Br J Dermatol. 1986 Feb;114(2):251-4.  
PMID: 3947541 [PubMed - indexed for MEDLINE]
- [X-linked chronic granulomatous disease in an adult woman. Evidence for a cell selection favoring neutrophils expressing the mutant allele.](#)
134. Cazzola M, Sacchi F, Pagani A, Marconi M, Ciriello MM, Fietta A, Clivio A, Ascari E.  
Haematologica. 1985 Jul-Aug;70(4):291-5. No abstract available.  
PMID: 3935525 [PubMed - indexed for MEDLINE]
- [Minor Xp21 chromosome deletion in a male associated with expression of Duchenne muscular dystrophy, chronic granulomatous disease, retinitis pigmentosa, and McLeod syndrome.](#)
135. Francke U, Ochs HD, de Martinville B, Giacalone J, Lindgren V, Distèche C, Pagon RA, Hofker MH, van Ommen GJ, Pearson PL, et al.  
Am J Hum Genet. 1985 Mar;37(2):250-67.  
PMID: 4039107 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Recurrent severe infections in a girl with apparently variable expression of mosaicism for chronic granulomatous disease.](#)
136. Johnston RB 3rd, Harbeck RJ, Johnston RB Jr.  
J Pediatr. 1985 Jan;106(1):50-5.  
PMID: 3965681 [PubMed - indexed for MEDLINE]
- [\[Septic granulomatosis in adults\].](#)
137. Höger P, Seger R, Belohradsky BH, Hitzig WH.  
Schweiz Med Wochenschr. 1984 Oct 6;114(40):1382-6. German.  
PMID: 6494872 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease in two sisters.](#)
138. D'Amelio R, Bellavite P, Bianco P, de Sole P, Le Moli S, Lippa S, Seminara R, Vercelli B, Rossi F, Rocchi G, et al.  
J Clin Immunol. 1984 May;4(3):220-7.  
PMID: 6330157 [PubMed - indexed for MEDLINE]
- [Random X inactivation resulting in mosaic nullisomy of region Xp21.1---p21.3 associated with heterozygosity for ornithine transcarbamylase deficiency and for chronic granulomatous disease.](#)
139. Francke U.  
Cytogenet Cell Genet. 1984;38(4):298-307.  
PMID: 6510024 [PubMed - indexed for MEDLINE]
- [Intrinsic polymorphonuclear chemotactic defect in a boy with chronic granulomatous disease.](#)
140. de la Cruz R, Jain M, Hsu K, Lim DT.  
Allergol Immunopathol (Madr). 1983 Nov-Dec;11(6):457-64.  
PMID: 6670661 [PubMed - indexed for MEDLINE]
- [A variant form of X-linked chronic granulomatous disease with normal nitroblue tetrazolium slide test and cytochrome b.](#)
141. Borregaard N, Cross AR, Herlin T, Jones OT, Segal AW, Valerius NH.  
Eur J Clin Invest. 1983 Jun;13(3):243-8.  
PMID: 6409648 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease carrier geno-dermatosis \(CGDCGD\).](#)
142. Finlay AY, Kingston HM, Holt PJ.  
Clin Genet. 1983 Apr;23(4):276-80.  
PMID: 6851217 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease due to granulocytes with abnormal NADPH oxidase activity and deficient cytochrome-b.](#)
143. Seger RA, Tiefenauer L, Matsunaga T, Wildfeuer A, Newburger PE.  
Blood. 1983 Mar;61(3):423-8.  
PMID: 6297635 [PubMed - indexed for MEDLINE] **Free Article**
- [Ascorbate \(1g/day\) does not help the phagocyte killing defect of X-linked chronic granulomatous disease.](#)
144. Foroozafar N, Lucas CF, Joss DV, Hugh-Jones K, Hobbs JR.  
Clin Exp Immunol. 1983 Jan;51(1):99-102. No abstract available.  
PMID: 6339127 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Chronic granulomatous disease: fatal septicemia caused by an unnamed gram-negative bacterium.](#)
145. Seger RA, Hollis DG, Weaver RE, Hitzig WH.  
J Clin Microbiol. 1982 Nov;16(5):821-5.

PMID: 7153335 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

- [Discoid lupus erythematosus-like lesions and stomatitis in female carriers of X-linked chronic granulomatous disease.](#)
- 146. Brandrup F, Koch C, Petri M, Schiødt M, Johansen KS.  
Br J Dermatol. 1981 May;104(5):495-505.  
PMID: 7236510 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease and McLeod syndrome in a black child.](#)
- 147. Fikrig SM, Phillip J, Smithwick EM, Oyen R, Marsh WL.  
Pediatrics. 1980 Sep;66(3):403-4.  
PMID: 7191556 [PubMed - indexed for MEDLINE]
- [X-linked immunodeficiency diseases.](#)
- 148. Lederman HM, Mak H, Pepple JM, Winkelstein JA.  
Johns Hopkins Med J. 1980 Jul;147(1):33-9. No abstract available.  
PMID: 7189803 [PubMed - indexed for MEDLINE]
- [\[Chronic granulomatous disease: clinical and functional studies in six cases \(author's transl\)\].](#)
- 149. Ortega JJ, Sáenz A, Cardelús I, Javier G.  
An Esp Pediatr. 1980 May;13(5):405-22. Spanish.  
PMID: 7406365 [PubMed - indexed for MEDLINE]
- [Cytochrome b is present in neutrophils from patients with chronic granulomatous disease.](#)
- 150. Borregaard N, Johansen KS, Taudorff E, Wandall JH.  
Lancet. 1979 May 5;1(8123):949-51.  
PMID: 87617 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease and the McLeod phenotype. Successful treatment of infection with granulocyte transfusions resulting in subsequent hemolytic transfusion reaction.](#)
- 151. Brzica SM Jr, Pineda AA, Taswell HF, Rhodes KH.  
Mayo Clin Proc. 1977 Mar;52(3):153-6.  
PMID: 839862 [PubMed - indexed for MEDLINE]
- [Frequency of the carrier state for X-linked chronic granulomatous disease among females with lupus erythematosus.](#)
- 152. Humbert JR, Fishman CB, Weston WL, DeArmedy PA, Thoren CH.  
Clin Genet. 1976 Jul;10(1):16-20.  
PMID: 949860 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease in an adult male: A proposed X-linked defect.](#)
- 153. Biggar WD, Buron S, Holmes B.  
J Pediatr. 1976 Jan;88(1):63-70.  
PMID: 812972 [PubMed - indexed for MEDLINE]

## PubMed

Search: Case Reports AND CYBB protein

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (47)

Display Settings: Summary, 100 per page, Sorted by Recently Added

[Manage Filters](#)Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 47

- [\[A report of a family with chronic granulomatous disease with a gp91phox disorder\].](#)
  1. Hernández AG, Reyes SL, Yamazaki Nakashimada MA, Gonzáles Serrano ME, Rosales FE, Galicia LB. Rev Alerg Mex. 2010 Mar-Apr;57(2):60-5. Spanish. PMID: 20857632 [PubMed - indexed for MEDLINE]
- [Successful hematopoietic stem cell transplantation in 2 children with X-linked chronic granulomatous disease from their unaffected HLA-identical siblings selected using preimplantation genetic diagnosis combined with HLA typing.](#)
  2. Goussetis E, Konialis CP, Peristeri I, Kitra V, Dimopoulou M, Petropoulou T, Vessalas G, Papassavas A, Tzanoudaki M, Kokkali G, Petrakou E, Spiropoulos A, Pangalos CG, Pantos K, Graphakos S. Biol Blood Marrow Transplant. 2010 Mar;16(3):344-9. Epub 2009 Oct 14. PMID: 19835970 [PubMed - indexed for MEDLINE]
- [Family clusters of variant X-linked chronic granulomatous disease.](#)
  3. Bender JM, Rand TH, Ampofo K, Pavia AT, Schober M, Tebo A, Pasi B, Augustine NH, Pryor RJ, Wittwer CT, Hill HR. Pediatr Infect Dis J. 2009 Jun;28(6):529-33. PMID: 19483518 [PubMed - indexed for MEDLINE]
- [Prenatal diagnosis of chronic granulomatous disease in a male fetus.](#)
  4. Yavuz Köker M, Metin A, Ozgür TT, de Boer M, Roos D. Iran J Allergy Asthma Immunol. 2009 Mar;8(1):57-61. PMID: 19279361 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease \(CGD\) mimicking neoplasms: a suspected mediastinal teratoma unmasking as thymic granulomas due to X-linked CGD, and 2 related cases.](#)
  5. Hauck F, Heine S, Beier R, Wieczorek K, Müller D, Hahn G, Gahr M, Rösen-Wolff A, Roesler J. J Pediatr Hematol Oncol. 2008 Dec;30(12):877-80. PMID: 19131770 [PubMed - indexed for MEDLINE]
- [Fatal hemophagocytic lymphohistiocytosis in X-linked chronic granulomatous disease associated with a perforin gene variant.](#)
  6. van Montfrans JM, Rudd E, van de Corput L, Henter JI, Nikkels P, Wulffraat N, Boelens JJ. Pediatr Blood Cancer. 2009 Apr;52(4):527-9. PMID: 19058215 [PubMed - indexed for MEDLINE]
- [DHR histogram pattern in chronic granulomatous disease.](#)
  7. Köker Y, Metin A. Asian Pac J Allergy Immunol. 2008 Jun-Sep;26(2-3):183; author reply 183-4. No abstract available. PMID: 19054937 [PubMed - indexed for MEDLINE] **Free Article**
- [Focus on FOCIS: the continuing diagnostic challenge of autosomal recessive chronic granulomatous disease.](#)
  8. Yu G, Hong DK, Dionis KY, Rae J, Heyworth PG, Curnutte JT, Lewis DB. Clin Immunol. 2008 Aug;128(2):117-26. PMID: 18625437 [PubMed - indexed for MEDLINE]
- [Adult onset X-linked chronic granulomatous disease in a woman patient caused by a de novo mutation in paternal-origin CYBB gene and skewed inactivation of normal maternal X chromosome.](#)
  9. Gono T, Yazaki M, Agematsu K, Matsuda M, Yasui K, Yamaura M, Hidaka F, Mizukami T, Nunoi H, Kubota T, Ikeda S. Intern Med. 2008;47(11):1053-6. Epub 2008 Jun 2. PMID: 18520120 [PubMed - indexed for MEDLINE] **Free Article**
- [A novel mutation of the CYBB gene resulting in severe form of X-linked chronic granulomatous disease.](#)
  10. Jirapongsananuruk O, Noack D, Boonchoo S, Thepthai C, Chokeyhaibulkit K, Visitsunthorn N, Vichyanond P, Luangwedchakam V, Likasitwattanakul S, Piboonpocanun S. Asian Pac J Allergy Immunol. 2007 Dec;25(4):249-52. PMID: 18402299 [PubMed - indexed for MEDLINE] **Free Article**
- [Mutations of chronic granulomatous disease in Turkish families.](#)
  11. Köker MY, Sanal O, De Boer M, Tezcan I, Metin A, Ersoy F, Roos D. Eur J Clin Invest. 2007 Jul;37(7):589-95. PMID: 17576211 [PubMed - indexed for MEDLINE]
- [BCG-osis and tuberculosis in a child with chronic granulomatous disease.](#)



12. Bustamante J, Aksu G, Vogt G, de Beaucoudrey L, Genel F, Chapgier A, Filipe-Santos O, Feinberg J, Emile JF, Kutukculer N, Casanova JL.  
J Allergy Clin Immunol. 2007 Jul;120(1):32-8. Epub 2007 Jun 4.  
PMID: 17544093 [PubMed - indexed for MEDLINE]
13. [X-linked chronic granulomatous disease \(CGD\) caused by an intra-exonic splice mutation \(CYBB exon 3, c.262G->A\) is mimicking juvenile sarcoidosis.](#)  
Brunner J, Dockter G, Rösen-Wolff A, Roesler J.  
Clin Exp Rheumatol. 2007 Mar-Apr;25(2):336-8.  
PMID: 17543165 [PubMed - indexed for MEDLINE]
14. [Insights into extensive deletions around the XK locus associated with McLeod phenotype and characterization of two novel cases.](#)  
Peng J, Redman CM, Wu X, Song X, Walker RH, Westhoff CM, Lee S.  
Gene. 2007 May 1;392(1-2):142-50. Epub 2007 Jan 11.  
PMID: 17300882 [PubMed - indexed for MEDLINE] **Free PMC Article**
15. [\[Report of a new mutation in CYBB gene in two patients with X linked chronic granulomatous disease\].](#)  
Agudelo-Flórez P, Navarro S, Luttges P, López JA, Norambuena X, Navarrete S CL, Quezada A, Spencer M, Condino-Neto A, Comejo de M.  
Rev Med Chil. 2006 Aug;134(8):965-72. Epub 2006 Nov 14. Spanish.  
PMID: 17130983 [PubMed - indexed for MEDLINE] **Free Article**
16. [Symptoms of OTC deficiency but not DMD in a female carrier of an Xp21.1 deletion including the genes for dystrophin and OTC.](#)  
Jakubiczka S, Bettecken T, Mohnike K, Schneppenheim R, Stumm M, Tönnies H, Volleth M, Wieacker P.  
Eur J Pediatr. 2007 Jul;166(7):743-5. Epub 2006 Nov 8.  
PMID: 17091258 [PubMed - indexed for MEDLINE]
17. [Severe X-linked chronic granulomatous disease in two unrelated females.](#)  
Chollet-Martin S, Lopez A, Gaud C, Henry D, Stos B, El Benna J, Chedevile G, Gendrel D, Gougerot-Pocidal MA, Grandchamp B, Gérard B.  
Eur J Pediatr. 2007 Feb;166(2):153-9. Epub 2006 Nov 3.  
PMID: 17089090 [PubMed - indexed for MEDLINE]
18. [Acute lymphoblastic leukemia in a patient with chronic granulomatous disease and a novel mutation in CYBB: first report.](#)  
Wolach B, Ash S, Gavrieli R, Stark B, Yaniv I, Roos D.  
Am J Hematol. 2005 Sep;80(1):50-4.  
PMID: 16138344 [PubMed - indexed for MEDLINE]
19. [Molecular characterization of a novel splice site mutation within the CYBB gene leading to X-linked chronic granulomatous disease.](#)  
Barese CN, Copelli SB, De Matteo E, Zandomeni R, Salgueiro F, Di Giovanni D, Heyworth P, Rivas EM.  
Pediatr Blood Cancer. 2005 Apr;44(4):420-2.  
PMID: 15468310 [PubMed - indexed for MEDLINE]
20. [Unusual late presentation of X-linked chronic granulomatous disease in an adult female with a somatic mosaic for a novel mutation in CYBB.](#)  
Wolach B, Scharf Y, Gavrieli R, de Boer M, Roos D.  
Blood. 2005 Jan 1;105(1):61-6. Epub 2004 Aug 12.  
PMID: 15308575 [PubMed - indexed for MEDLINE] **Free Article**
21. [Severe phenotype of chronic granulomatous disease presenting in a female with a de novo mutation in gp91-phox and a non familial, extremely skewed X chromosome inactivation.](#)  
Anderson-Cohen M, Holland SM, Kuhns DB, Fleisher TA, Ding L, Brenner S, Malech HL, Roesler J.  
Clin Immunol. 2003 Dec;109(3):308-17.  
PMID: 14697745 [PubMed - indexed for MEDLINE]
22. [Rapid prenatal diagnosis of X-linked chronic granulomatous disease using a denaturing high-performance liquid chromatography \(DHPLC\) system.](#)  
Chien SC, Lee CN, Hung CC, Tsao PN, Su YN, Hsieh FJ.  
Prenat Diagn. 2003 Dec 30;23(13):1092-6.  
PMID: 14691999 [PubMed - indexed for MEDLINE]
23. [Diagnostic paradigm for evaluation of male patients with chronic granulomatous disease, based on the dihydrorhodamine 123 assay.](#)  
Jirapongsananuruk O, Malech HL, Kuhns DB, Niemela JE, Brown MR, Anderson-Cohen M, Fleisher TA.  
J Allergy Clin Immunol. 2003 Feb;111(2):374-9.  
PMID: 12589359 [PubMed - indexed for MEDLINE]
24. [Evidence consistent with human L1 retrotransposition in maternal meiosis I.](#)  
Brouha B, Meischl C, Ostertag E, de Boer M, Zhang Y, Neijens H, Roos D, Kazazian HH Jr.  
Am J Hum Genet. 2002 Aug;71(2):327-36. Epub 2002 Jul 1.  
PMID: 12094329 [PubMed - indexed for MEDLINE] **Free PMC Article**
25. [Molecular and functional characterization of a new X-linked chronic granulomatous disease variant \(X91+\) case with a double](#)



25. [missense mutation in the cytosolic gp91phox C-terminal tail.](#)  
Stasia MJ, Lardy B, Maturana A, Rousseau P, Martel C, Bordigoni P, Demareux N, Morel F.  
Biochim Biophys Acta. 2002 Apr 24;1586(3):316-30.  
PMID: 11997083 [PubMed - indexed for MEDLINE]
26. [Molecular quality control machinery contributes to the leukocyte NADPH oxidase deficiency in chronic granulomatous disease.](#)  
Lin SJ, Huang YF, Chen JY, Heyworth PG, Noack D, Wang JY, Lin CY, Chiang BL, Yang CM, Liu CC, Shieh CC.  
Biochim Biophys Acta. 2002 Apr 24;1586(3):275-86.  
PMID: 11997079 [PubMed - indexed for MEDLINE]
27. [An unusual intronic mutation in the CYBB gene giving rise to chronic granulomatous disease.](#)  
Noack D, Heyworth PG, Newburger PE, Cross AR.  
Biochim Biophys Acta. 2001 Sep 28;1537(2):125-31.  
PMID: 11566256 [PubMed - indexed for MEDLINE]
28. [A second case of somatic triple mosaicism in the CYBB gene causing chronic granulomatous disease.](#)  
Noack D, Heyworth PG, Kyono W, Cross AR.  
Hum Genet. 2001 Aug;109(2):234-8.  
PMID: 11511930 [PubMed - indexed for MEDLINE]
29. [Improved superoxide-generating ability by interferon gamma due to splicing pattern change of transcripts in neutrophils from patients with a splice site mutation in CYBB gene.](#)  
Ishibashi F, Mizukami T, Kanegasaki S, Motoda L, Kakinuma R, Endo F, Nunoi H.  
Blood. 2001 Jul 15;98(2):436-41.  
PMID: 11435314 [PubMed - indexed for MEDLINE] **Free Article**
30. [A new exon created by intronic insertion of a rearranged LINE-1 element as the cause of chronic granulomatous disease.](#)  
Meischl C, Boer M, Ahlin A, Roos D.  
Eur J Hum Genet. 2000 Sep;8(9):697-703.  
PMID: 10980575 [PubMed - indexed for MEDLINE] **Free Article**
31. [A novel mutation in the CYBB gene resulting in an unexpected pattern of exon skipping and chronic granulomatous disease.](#)  
Noack D, Heyworth PG, Curnutte JT, Rae J, Cross AR.  
Biochim Biophys Acta. 1999 Aug 30;1454(3):270-4.  
PMID: 10452961 [PubMed - indexed for MEDLINE]
32. [A novel H\(+\) conductance in eosinophils: unique characteristics and absence in chronic granulomatous disease.](#)  
Bánfi B, Schrenzel J, Nüsse O, Lew DP, Ligeti E, Krause KH, Demareux N.  
J Exp Med. 1999 Jul 19;190(2):183-94.  
PMID: 10432282 [PubMed - indexed for MEDLINE] **Free PMC Article**
33. [Missense mutations in the gp91-phox gene encoding cytochrome b558 in patients with cytochrome b positive and negative X-linked chronic granulomatous disease.](#)  
Kaneda M, Sakuraba H, Ohtake A, Nishida A, Kiryu C, Kakinuma K.  
Blood. 1999 Mar 15;93(6):2098-104.  
PMID: 10068684 [PubMed - indexed for MEDLINE] **Free Article**
34. [A novel mutation at a probable heme-binding ligand in neutrophil cytochrome b558 in atypical X-linked chronic granulomatous disease.](#)  
Tsuda M, Kaneda M, Sakiyama T, Inana I, Owada M, Kiryu C, Shiraiishi T, Kakinuma K.  
Hum Genet. 1998 Oct;103(4):377-81.  
PMID: 9856476 [PubMed - indexed for MEDLINE]
35. [Mutation at histidine 338 of gp91\(phox\) depletes FAD and affects expression of cytochrome b558 of the human NADPH oxidase.](#)  
Yoshida LS, Saruta F, Yoshikawa K, Tatsuzawa O, Tsunawaki S.  
J Biol Chem. 1998 Oct 23;273(43):27879-86.  
PMID: 9774399 [PubMed - indexed for MEDLINE] **Free Article**
36. [Somatic triple mosaicism in a carrier of X-linked chronic granulomatous disease.](#)  
de Boer M, Bakker E, Van Lierde S, Roos D.  
Blood. 1998 Jan 1;91(1):252-7.  
PMID: 9414292 [PubMed - indexed for MEDLINE] **Free Article**
37. [Greater omentum flaps and granulocyte transfusions as combined therapy of liver abscess in chronic granulomatous disease.](#)  
von Planta M, Ozsahin H, Schrotten H, Stauffer UG, Seger RA.  
Eur J Pediatr Surg. 1997 Aug;7(4):234-6.  
PMID: 9297520 [PubMed - indexed for MEDLINE]
38. [A 25-kb deletion in the 5' region of the cytochrome b558 heavy chain gene \(CYBB\) in a patient with X-linked chronic granulomatous disease.](#)  
Faizunnessa NN, Tsuchiya T, Kumatori A, Kurozumi H, Imajoh-Ohmi S, Kanegasaki S, Nakamura M.

Hum Genet. 1997 Apr;99(4):469-73.

PMID: 9099835 [PubMed - indexed for MEDLINE]

- 39. [An in-frame triplet deletion within the gp91-phox gene in an adult X-linked chronic granulomatous disease patient with residual NADPH-oxidase activity.](#)  
Jendrossek V, Ritzel A, Neubauer B, Heyden S, Gahr M.  
Eur J Haematol. 1997 Feb;58(2):78-85.  
PMID: 9111587 [PubMed - indexed for MEDLINE]
- 40. [A novel polymorphism in the coding region of CYBB, the human gp91-phox gene.](#)  
Kuribayashi F, de Boer M, Leusen JH, Verhoeven AJ, Roos D.  
Hum Genet. 1996 May;97(5):611-3.  
PMID: 8655140 [PubMed - indexed for MEDLINE]
- 41. [Molecular analysis in three cases of X91- variant chronic granulomatous disease.](#)  
Bu-Ghanim HN, Segal AW, Keep NH, Casimir CM.  
Blood. 1995 Nov 1;86(9):3575-82.  
PMID: 7579466 [PubMed - indexed for MEDLINE] **Free Article**
- 42. [A 15-base pair \(bp\) palindromic insertion associated with a 3-bp deletion in exon 10 of the gp91-phox gene, detected in two patients with X-linked chronic granulomatous disease.](#)  
Ariga T, Sakiyama Y, Matsumoto S.  
Hum Genet. 1995 Jul;96(1):6-8.  
PMID: 7607656 [PubMed - indexed for MEDLINE]
- 43. [A new mutation in exon 12 of the gp91-phox gene leading to cytochrome b-positive X-linked chronic granulomatous disease.](#)  
Azuma H, Oomi H, Sasaki K, Kawabata I, Sakaino T, Koyano S, Suzutani T, Nunoi H, Okuno A.  
Blood. 1995 Jun 1;85(11):3274-7.  
PMID: 7756659 [PubMed - indexed for MEDLINE] **Free Article**
- 44. [Immunocytochemical detection of lipid peroxidation in phagosomes of human neutrophils: correlation with expression of flavocytochrome b.](#)  
Quinn MT, Linner JG, Siemsen D, Dratz EA, Buescher ES, Jesaitis AJ.  
J Leukoc Biol. 1995 Mar;57(3):415-21.  
PMID: 7884312 [PubMed - indexed for MEDLINE] **Free Article**
- 45. [Chronic granulomatous disease and glutathione peroxidase deficiency, revisited.](#)  
Newburger PE, Malawista SE, Dinauer MC, Gelbart T, Woodman RC, Chada S, Shen Q, van Blaricom G, Quie PG, Curnutte JT.  
Blood. 1994 Dec 1;84(11):3861-9.  
PMID: 7949143 [PubMed - indexed for MEDLINE] **Free Article**
- 46. [A 40-base-pair duplication in the gp91-phox gene leading to X-linked chronic granulomatous disease.](#)  
Rabbani H, de Boer M, Ahlin A, Sundin U, Elinder G, Hammarström L, Palmblad J, Smith CI, Roos D.  
Eur J Haematol. 1993 Oct;51(4):218-22.  
PMID: 7694872 [PubMed - indexed for MEDLINE]
- 47. [A newly recognized point mutation in the cytochrome b558 heavy chain gene replacing alanine57 by glutamic acid, in a patient with cytochrome b positive X-linked chronic granulomatous disease.](#)  
Ariga T, Sakiyama Y, Tomizawa K, Imajoh-Ohmi S, Kanegasaki S, Matsumoto S.  
Eur J Pediatr. 1993 Jun;152(6):469-72.  
PMID: 8101486 [PubMed - indexed for MEDLINE]

Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 15

- [A new autosomal recessive, heterozygous pair of mutations of CYBA in a patient with chronic granulomatous disease.](#)
  1. Chang YH, Yu HH, Lau YL, Chan KW, Chiang BL.  
Ann Allergy Asthma Immunol. 2010 Aug;105(2):183-5. Epub 2010 Jul 3. No abstract available.  
PMID: 20674832 [PubMed - indexed for MEDLINE]
- [Focus on FOCIS: the continuing diagnostic challenge of autosomal recessive chronic granulomatous disease.](#)
  2. Yu G, Hong DK, Dionis KY, Rae J, Heyworth PG, Curnutte JT, Lewis DB.  
Clin Immunol. 2008 Aug;128(2):117-26.  
PMID: 18625437 [PubMed - indexed for MEDLINE]
- [Case records of the Massachusetts General Hospital. Case 21-2008. An 11-month-old boy with fever and pulmonary infiltrates.](#)
  3. Harris JB, Michelow IC, Westra SJ, Kradin RL.  
N Engl J Med. 2008 Jul 10;359(2):178-87. No abstract available.  
PMID: 18614786 [PubMed - indexed for MEDLINE]
- [Characterization of six novel mutations in CYBA: the gene causing autosomal recessive chronic granulomatous disease.](#)
  4. Teimourian S, Zomorodian E, Badalzadeh M, Pouya A, Kannengiesser C, Mansouri D, Cheraghi T, Parvaneh N.  
Br J Haematol. 2008 Jun;141(6):848-51. Epub 2008 Apr 18.  
PMID: 18422995 [PubMed - indexed for MEDLINE]
- [A donor splice site mutation in intron 1 of CYBA, leading to chronic granulomatous disease.](#)
  5. de Boer M, Hartl D, Wintergerst U, Belohradsky BH, Roos D.  
Blood Cells Mol Dis. 2005 Nov-Dec;35(3):365-9. Epub 2005 Sep 12.  
PMID: 16157492 [PubMed - indexed for MEDLINE]
- [A novel and unusual case of chronic granulomatous disease in a child with a homozygous 36-bp deletion in the CYBA gene \(A22\(0\)\) leading to the activation of a cryptic splice site in intron 4.](#)
  6. Stasia MJ, Bordigoni P, Martel C, Morel F.  
Hum Genet. 2002 May;110(5):444-50. Epub 2002 Apr 9.  
PMID: 12073015 [PubMed - indexed for MEDLINE]
- [Molecular analysis of 9 new families with chronic granulomatous disease caused by mutations in CYBA, the gene encoding p22\(phox\).](#)
  7. Rae J, Noack D, Heyworth PG, Ellis BA, Curnutte JT, Cross AR.  
Blood. 2000 Aug 1;96(3):1106-12.  
PMID: 10910929 [PubMed - indexed for MEDLINE] **Free Article**
- [Combined adenine phosphoribosyltransferase and N-acetylgalactosamine-6-sulfate sulfatase deficiency.](#)
  8. Wang L, Ou X, Sebesta I, Vondrak K, Krijt J, Elleder M, Poupetova H, Ledvinova J, Zeman J, Simmonds HA, Tischfield JA, Sahota A.  
Mol Genet Metab. 1999 Sep;68(1):78-85.  
PMID: 10479485 [PubMed - indexed for MEDLINE]
- [Missense mutations in the gp91-phox gene encoding cytochrome b558 in patients with cytochrome b positive and negative X-linked chronic granulomatous disease.](#)
  9. Kaneda M, Sakuraba H, Ohtake A, Nishida A, Kiryu C, Kakinuma K.  
Blood. 1999 Mar 15;93(6):2098-104.  
PMID: 10068684 [PubMed - indexed for MEDLINE] **Free Article**
- [A novel mutation at a probable heme-binding ligand in neutrophil cytochrome b558 in atypical X-linked chronic granulomatous disease.](#)
  10. Tsuda M, Kaneda M, Sakiyama T, Inana I, Owada M, Kiryu C, Shiraiishi T, Kakinuma K.  
Hum Genet. 1998 Oct;103(4):377-81.  
PMID: 9856476 [PubMed - indexed for MEDLINE]
- [Mutation at histidine 338 of gp91\(phox\) depletes FAD and affects expression of cytochrome b558 of the human NADPH oxidase.](#)
  11. Yoshida LS, Saruta F, Yoshikawa K, Tatsuzawa O, Tsunawaki S.  
J Biol Chem. 1998 Oct 23;273(43):27879-86.  
PMID: 9774399 [PubMed - indexed for MEDLINE] **Free Article**
- [Diagnosis and carrier detection of chronic granulomatous disease in five families by flow cytometry.](#)
  - Crockard AD, Thompson JM, Boyd NA, Haughton DJ, McCluskey DR, Turner CP.

12. Int Arch Allergy Immunol. 1997 Oct;114(2):144-52.  
PMID: 9338608 [PubMed - indexed for MEDLINE]
  
- [Identification of a donor splice site mutation leading to loss of p22-phox exon 5 in autosomal chronic granulomatous disease.](#)
13. Porter CD, Parkar MH, Kinnon C.  
Hum Mutat. 1996;7(4):374. No abstract available.  
PMID: 8723692 [PubMed - indexed for MEDLINE]
  
- [Identification of allele-specific p22-phox mutations in a compound heterozygous patient with chronic granulomatous disease by mismatch PCR and restriction enzyme analysis.](#)
14. Hossle JP, de Boer M, Seger RA, Roos D.  
Hum Genet. 1994 Apr;93(4):437-42.  
PMID: 8168815 [PubMed - indexed for MEDLINE]
  
- [\[Glomerular basement membrane antibodies and immune complexes in a patient with Goodpasture's syndrome\].](#)
15. Ratajczak T, Steciwko A, Cyba J, Weyde W.  
Pol Tyg Lek. 1980 Apr 14;35(15):539-40. Polish. No abstract available.  
PMID: 6447289 [PubMed - indexed for MEDLINE]

# PubMed

Search: Autosomal CGD and CYBA and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (5)

[Manage Filters](#)

Display Settings: Summary, Sorted by Recently Added

**Are you looking for gene information?**

Source: Gene Database

[See 185 articles](#) about **cgd** gene function**cgd** congested [*Drosophila melanogaster*]**cgd** in [Drosophila melanogaster](#) | [Homo sapiens](#) | [Mus musculus](#) | [All 4 Gene records](#)**Results: 5**

- [Focus on FOCIS: the continuing diagnostic challenge of autosomal recessive chronic granulomatous disease.](#)
- 1. Yu G, Hong DK, Dionis KY, Rae J, Heyworth PG, Cumutte JT, Lewis DB.  
Clin Immunol. 2008 Aug;128(2):117-26.  
PMID: 18625437 [PubMed - indexed for MEDLINE]
- [Characterization of six novel mutations in CYBA: the gene causing autosomal recessive chronic granulomatous disease.](#)
- 2. Teimourian S, Zomorodian E, Badalzadeh M, Pouya A, Kannengiesser C, Mansouri D, Cheraghi T, Parvaneh N.  
Br J Haematol. 2008 Jun;141(6):848-51. Epub 2008 Apr 18.  
PMID: 18422995 [PubMed - indexed for MEDLINE]
- [A donor splice site mutation in intron 1 of CYBA, leading to chronic granulomatous disease.](#)
- 3. de Boer M, Hartl D, Wintergerst U, Belohradsky BH, Roos D.  
Blood Cells Mol Dis. 2005 Nov-Dec;35(3):365-9. Epub 2005 Sep 12.  
PMID: 16157492 [PubMed - indexed for MEDLINE]
- [A novel and unusual case of chronic granulomatous disease in a child with a homozygous 36-bp deletion in the CYBA gene \(A22\(0\)\) leading to the activation of a cryptic splice site in intron 4.](#)
- 4. Stasia MJ, Bordigoni P, Martel C, Morel F.  
Hum Genet. 2002 May;110(5):444-50. Epub 2002 Apr 9.  
PMID: 12073015 [PubMed - indexed for MEDLINE]
- [Diagnosis and carrier detection of chronic granulomatous disease in five families by flow cytometry.](#)
- 5. Crockard AD, Thompson JM, Boyd NA, Haughton DJ, McCluskey DR, Turner CP.  
Int Arch Allergy Immunol. 1997 Oct;114(2):144-52.  
PMID: 9338608 [PubMed - indexed for MEDLINE]

Display Settings: Summary, 20 per page, Sorted by Recently Added

## Results: 8

- [A new autosomal recessive, heterozygous pair of mutations of CYBA in a patient with chronic granulomatous disease.](#)
  1. Chang YH, Yu HH, Lau YL, Chan KW, Chiang BL.  
Ann Allergy Asthma Immunol. 2010 Aug;105(2):183-5. Epub 2010 Jul 3. No abstract available.  
PMID: 20674832 [PubMed - indexed for MEDLINE]
  
- [Focus on FOCIS: the continuing diagnostic challenge of autosomal recessive chronic granulomatous disease.](#)
  2. Yu G, Hong DK, Dionis KY, Rae J, Heyworth PG, Cumutte JT, Lewis DB.  
Clin Immunol. 2008 Aug;128(2):117-26.  
PMID: 18625437 [PubMed - indexed for MEDLINE]
  
- [Characterization of six novel mutations in CYBA: the gene causing autosomal recessive chronic granulomatous disease.](#)
  3. Teimourian S, Zomorodian E, Badalzadeh M, Pouya A, Kannengiesser C, Mansouri D, Cheraghi T, Parvaneh N.  
Br J Haematol. 2008 Jun;141(6):848-51. Epub 2008 Apr 18.  
PMID: 18422995 [PubMed - indexed for MEDLINE]
  
- [A donor splice site mutation in intron 1 of CYBA, leading to chronic granulomatous disease.](#)
  4. de Boer M, Hartl D, Wintergerst U, Belohradsky BH, Roos D.  
Blood Cells Mol Dis. 2005 Nov-Dec;35(3):365-9. Epub 2005 Sep 12.  
PMID: 16157492 [PubMed - indexed for MEDLINE]
  
- [A novel and unusual case of chronic granulomatous disease in a child with a homozygous 36-bp deletion in the CYBA gene \(A22\(0\)\) leading to the activation of a cryptic splice site in intron 4.](#)
  5. Stasia MJ, Bordigoni P, Martel C, Morel F.  
Hum Genet. 2002 May;110(5):444-50. Epub 2002 Apr 9.  
PMID: 12073015 [PubMed - indexed for MEDLINE]
  
- [Combined adenine phosphoribosyltransferase and N-acetylgalactosamine-6-sulfate sulfatase deficiency.](#)
  6. Wang L, Ou X, Sebesta I, Vondrak K, Krijt J, Elleder M, Poupetova H, Ledvinova J, Zeman J, Simmonds HA, Tischfield JA, Sahota A.  
Mol Genet Metab. 1999 Sep;68(1):78-85.  
PMID: 10479485 [PubMed - indexed for MEDLINE]
  
- [Diagnosis and carrier detection of chronic granulomatous disease in five families by flow cytometry.](#)
  7. Crockard AD, Thompson JM, Boyd NA, Houghton DJ, McCluskey DR, Turner CP.  
Int Arch Allergy Immunol. 1997 Oct;114(2):144-52.  
PMID: 9338608 [PubMed - indexed for MEDLINE]
  
- [Identification of a donor splice site mutation leading to loss of p22-phox exon 5 in autosomal chronic granulomatous disease.](#)
  8. Porter CD, Parkar MH, Kinnon C.  
Hum Mutat. 1996;7(4):374. No abstract available.  
PMID: 8723692 [PubMed - indexed for MEDLINE]

Display Settings: Abstract

Limits Activated: Humans, Publication Date to 2010/12/1 [Change](#) | [Remove](#)[Int Arch Allergy Immunol.](#) 1997 Oct;114(2):144-52.

## Diagnosis and carrier detection of chronic granulomatous disease in five families by flow cytometry.

[Crockard AD](#), [Thompson JM](#), [Boyd NA](#), [Haughton DJ](#), [McCluskey DR](#), [Turner CP](#).Regional Immunology Laboratory, Royal Victoria Hospital, UK. [a.crockard@qub.ac.uk](mailto:a.crockard@qub.ac.uk)

### Abstract

**BACKGROUND:** The application of flow cytometric assays, for determination of phagocyte respiratory burst (ROB) activity, to the investigation of chronic granulomatous disease (CGD) may lead to improved laboratory detection of patients and carriers and indicate the nature of the molecular defect. To evaluate the diagnostic capability of flow cytometry an investigation of 5 CGD families was undertaken.

**METHODS:** Phorbol myristate acetate (PMA)-induced neutrophil ROB was determined using dihydrorhodamine 123 (DHR) and flow cytometric analysis in 26 members of 5 CGD families (2: X-CGD; 3: autosomal recessive CGD).

**RESULTS:** Neutrophils from X-CGD patients displayed absence of reactivity. Female carriers demonstrated dual fluorescence peaks of high and low intensity indicative of normal and abnormal populations, respectively. Normal ROB activity was observed in a boy whose X-CGD was successfully treated by bone marrow transplantation. Reduced ROB activity was observed in 3 patients with autosomal-recessive CGD compared with their parents and siblings. The patterns of flow cytometric reactivity correlated with the different molecular defects identified. Absence of the p22phox membrane component of the NADPH oxidase complex resulted in a significantly reduced level of respiratory burst activity which was comparable to that observed in X-CGD, whereas reduced but detectable levels of respiratory burst activity were observed in a patient with diminished levels of p22phox and in a patient with deficiency of the cytosolic p47phox component.

**CONCLUSIONS:** The DHR flow cytometric assay offers a sensitive diagnostic screening test for CGD and furthermore may provide an indication of the likely underlying molecular defect.

PMID: 9338608 [PubMed - indexed for MEDLINE]

[Publication Types](#), [MeSH Terms](#), [Substances](#)[LinkOut](#) - more resources



Display Settings: Abstract

Limits Activated: Humans, Publication Date to 2010/12/1 [Change](#) | [Remove](#)[Blood](#). 1999 Oct 1;94(7):2505-14.

## Molecular characterization of autosomal recessive chronic granulomatous disease caused by a defect of the nicotinamide adenine dinucleotide phosphate (reduced form) oxidase component p67-phox.

Patiño PJ, Rae J, Noack D, Erickson R, Ding J, de Olarte DG, Curnutte JT.

Department of Immunology, Genentech, Inc, South San Francisco, CA, USA.

### Abstract

Chronic granulomatous disease (CGD) is a rare inherited disorder of phagocytes in which defective production of microbicidal oxidants leads to severe recurrent infections. CGD is caused by mutations in any of 4 genes encoding components of nicotinamide adenine dinucleotide phosphate (reduced form; NADPH) oxidase, the multisubunit enzyme that produces the precursor of these oxidants, superoxide. Approximately 5% of CGD patients have an autosomal recessive form of disease caused by a severe deficiency of p67-phox, a 526-amino acid subunit of the oxidase that appears to regulate electron transport within the enzyme. Here we report the biochemical and molecular characterization of 6 unrelated kindreds with p67-phox deficiency. These studies show that, as in gp91-phox and p22-phox deficiencies, the p67-phox CGD patients show a high degree of heterogeneity in the genetic defects that underlie their disease. Five different mutant alleles were identified: (1) a nonsense mutation in exon 4 (C(304) --> T); (2) a 5-nucleotide (nt) deletion in exon 13 (nts 1169-1173); (3) a splice mutation in the first nucleotide of intron 4 (G --> A); (4) a deletion of 1 nt in exon 9 (A(728)); and (5) a 9-nt in-frame deletion in exon 2 (nts 55-63). The splice mutation was seen in 3 unrelated kindreds, while the 5-nt deletion was seen in 2 apparently unrelated families (both of Palestinian origin). Homozygosity was present in 4 of the kindreds, 2 of which had consanguineous parentage. In the isolated neutrophils of each of the affected patients in the 6 kindreds, there was no measurable respiratory burst activity and no p67-phox protein detected by immunoblot analysis. The level of 67-phox mRNA was less than 10% of normal in the mononuclear leukocytes from 3 of the 4 patients analyzed by Northern blot studies. Thus, this heterogeneous group of mutations in p67-phox all lead to marked instability of mRNA or protein (or both) that results in the complete loss of NADPH oxidase activity.

PMID: 10498624 [PubMed - indexed for MEDLINE] [Free Article](#)

Publication Types, MeSH Terms, Substances, Grant Support

[LinkOut](#) - more resources



## PubMed

Search: neutrophil cytosolic factor 1 and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (26)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 26

- [Therapeutic strategy in p47-phox deficient chronic granulomatous disease presenting as inflammatory bowel disease.](#)
  1. Freudenberg F, Wintergerst U, Roesen-Wolff A, Albert MH, Prell C, Strahm B, Koletzko S, Ehl S, Roos D, Tommasini A, Ventura A, Belohradsky BH, Seger R, Roesler J, Gungör T.  
J Allergy Clin Immunol. 2010 Apr;125(4):943-946.e1. No abstract available.  
PMID: 20371400 [PubMed - indexed for MEDLINE]
- [A novel mutation in NCF1 in an adult CGD patient with a liver abscess as first presentation.](#)
  2. van de Vosse E, van Wengen A, van Geelen JA, de Boer M, Roos D, van Dissel JT.  
J Hum Genet. 2009 Jun;54(6):313-6. Epub 2009 Mar 27.  
PMID: 19329991 [PubMed - indexed for MEDLINE]
- [Autosomal recessive chronic granulomatous disease, IgA deficiency and refractory autoimmune thrombocytopenia responding to Anti-CD20 monoclonal antibody.](#)
  3. Shamsian BS, Mansouri D, Pourpak Z, Rezaei N, Chavoshzadeh Z, Jadali F, Gharib A, Alavi S, Eghbali A, Arzanian MT.  
Iran J Allergy Asthma Immunol. 2008 Sep;7(3):181-4.  
PMID: 18780954 [PubMed - indexed for MEDLINE]
- [Fulminant mulch pneumonitis: an emergency presentation of chronic granulomatous disease.](#)
  4. Siddiqui S, Anderson VL, Hilligoss DM, Abinun M, Kuijpers TW, Masur H, Witebsky FG, Shea YR, Gallin JI, Malech HL, Holland SM.  
Clin Infect Dis. 2007 Sep 15;45(6):673-81. Epub 2007 Aug 8.  
PMID: 17712749 [PubMed - indexed for MEDLINE] **Free Article**
- [Chorioretinal lesions as the unique feature of complete chronic granulomatous disease in an 8-year-old girl.](#)
  5. Chalumeau M, Monnet D, Brézin AP, Gendrel D, Casanova JL, Gérard B, Chollet-Martin S.  
Eur J Pediatr. 2007 Oct;166(10):1069-70. Epub 2007 Jan 4. No abstract available.  
PMID: 17203282 [PubMed - indexed for MEDLINE]
- [Chronic granulomatous disease caused by mutations other than the common GT deletion in NCF1, the gene encoding the p47phox component of the phagocyte NADPH oxidase.](#)
  6. Roos D, de Boer M, Köker MY, Dekker J, Singh-Gupta V, Ahlin A, Palmblad J, Sanal O, Kurenko-Deptuch M, Jolles S, Wolach B.  
Hum Mutat. 2006 Dec;27(12):1218-29.  
PMID: 16972229 [PubMed - indexed for MEDLINE]
- [Ecthyma gangrenosum and septic shock syndrome secondary to Chromobacterium violaceum.](#)
  7. Brown KL, Stein A, Morrell DS.  
J Am Acad Dermatol. 2006 May;54(5 Suppl):S224-8.  
PMID: 16631946 [PubMed - indexed for MEDLINE]
- [\[Autosomal chronic granulomatous disease: case report and mutation analysis of two Brazilian siblings\].](#)
  8. Prando-Andrade C, Agudelo-Florez P, Lopez JA, Paiva MA, Costa-Carvalho BT, Condino-Neto A.  
J Pediatr (Rio J). 2004 Sep-Oct;80(5):425-8. Portuguese.  
PMID: 15505740 [PubMed - indexed for MEDLINE] **Free Article**
- [Chronic granulomatous disease caused by a deficiency in p47\(phox\) mimicking Crohn's disease.](#)
  9. Huang JS, Noack D, Rae J, Ellis BA, Newbury R, Pong AL, Lavine JE, Curnutte JT, Bastian J.  
Clin Gastroenterol Hepatol. 2004 Aug;2(8):690-5.  
PMID: 15290662 [PubMed - indexed for MEDLINE]
- [A 5-week-old HIV-1-exposed girl with failure to thrive and diffuse nodular pulmonary infiltrates.](#)
  10. Seeborg FO, Paul ME, Abramson SL, Kearney DL, Dorfman SR, Holland SM, Shearer WT.  
J Allergy Clin Immunol. 2004 Apr;113(4):627-34. Review.  
PMID: 15100665 [PubMed - indexed for MEDLINE]
- [\[A case of Williams syndrome with p47-phox-deficient chronic granulomatous disease\].](#)
  11. Kabuki T, Kawai T, Kin Y, Joh K, Ohashi H, Kosho T, Yachie A, Kanegane H, Miyawaki T, Oh-ishi T.  
Nihon Rinsho Meneki Gakkai Kaishi. 2003 Oct;26(5):299-303. Japanese.  
PMID: 14635404 [PubMed - indexed for MEDLINE]
- [Disseminated trichosporonosis in a murine model of chronic granulomatous disease.](#)
  12. Lacy SH, Gardner DJ, Olson LC, Ding L, Holland SM, Bryant MA.  
Comp Med. 2003 Jun;53(3):303-8.  
PMID: 12868577 [PubMed - indexed for MEDLINE]

- 13. [Diagnostic paradigm for evaluation of male patients with chronic granulomatous disease, based on the dihydrorhodamine 123 assay.](#)  
Jirapongsananuruk O, Malech HL, Kuhns DB, Niemela JE, Brown MR, Anderson-Cohen M, Fleisher TA.  
J Allergy Clin Immunol. 2003 Feb;111(2):374-9.  
PMID: 12589359 [PubMed - indexed for MEDLINE]
- 14. [Prenatal diagnosis in two families with autosomal, p47\(phox\)-deficient chronic granulomatous disease due to a novel point mutation in NCF1.](#)  
de Boer M, Singh V, Dekker J, Di Rocco M, Goldblatt D, Roos D.  
Prenat Diagn. 2002 Mar;22(3):235-40.  
PMID: 11920901 [PubMed - indexed for MEDLINE]
- 15. [\[Clinical and molecular characterization of autosomal recessive chronic granulomatous disease caused by p47-phox deficiency\].](#)  
Cornejo De Luigi M, López JA, Navarro S, García D, Patiño PJ.  
Rev Med Chil. 2000 May;128(5):491-8. Spanish.  
PMID: 11008352 [PubMed - indexed for MEDLINE]
- 16. [Visceral leishmaniasis and other severe infections in an adult patient with p47-phox-deficient chronic granulomatous disease.](#)  
Asensi V, Tricas L, Meana A, Roos D, Carton JA, Maradona JA, Fresno MF, Valle E, Fierer J, Arribas JM.  
Infection. 2000 May-Jun;28(3):171-4.  
PMID: 10879644 [PubMed - indexed for MEDLINE]
- 17. [A novel H\(+\) conductance in eosinophils: unique characteristics and absence in chronic granulomatous disease.](#)  
Bánfi B, Schrenzel J, Nüsse O, Lew DP, Ligeti E, Krause KH, Demaux N.  
J Exp Med. 1999 Jul 19;190(2):183-94.  
PMID: 10432282 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 18. [Treatment with rhG-CSF for osteomyelitis in a patient with p47-phox-deficient chronic granulomatous disease.](#)  
Isotani H, Fukumoto Y, Kawamura H, Sasada M, Hattori K, Fujiwara T, Kobayashi Y.  
Ann Hematol. 1997 Nov-Dec;75(5-6):243-6.  
PMID: 9433384 [PubMed - indexed for MEDLINE]
- 19. [Diagnosis and carrier detection of chronic granulomatous disease in five families by flow cytometry.](#)  
Crockard AD, Thompson JM, Boyd NA, Haughton DJ, McCluskey DR, Turner CP.  
Int Arch Allergy Immunol. 1997 Oct;114(2):144-52.  
PMID: 9338608 [PubMed - indexed for MEDLINE]
- 20. [Pneumonic tularemia in a patient with chronic granulomatous disease.](#)  
Maranan MC, Schiff D, Johnson DC, Abrahams C, Wylam M, Gerber SI.  
Clin Infect Dis. 1997 Sep;25(3):630-3.  
PMID: 9314451 [PubMed - indexed for MEDLINE] **Free Article**
- 21. [\[An autopsy case of chronic granulomatous disease diagnosed by biopsy\].](#)  
Gonda H, Noda Y, Ohishi T, Tanigawa Y, Yoshida N, Yoshida M, Yamamoto K, Mizuno H, Nishimura Y, Suitou H.  
Kansenshogaku Zasshi. 1997 Jul;71(7):668-71. Japanese.  
PMID: 9283144 [PubMed - indexed for MEDLINE]
- 22. [Disturbed interaction of p21-rac with mutated p67-phox causes chronic granulomatous disease.](#)  
Leusen JH, de Klein A, Hilarius PM, Ahlin A, Palmblad J, Smith CI, Diekmann D, Hall A, Verhoeven AJ, Roos D.  
J Exp Med. 1996 Oct 1;184(4):1243-9.  
PMID: 8879195 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 23. [Two brothers with p47-phox-deficient chronic granulomatous disease associated with end-stage renal failure.](#)  
Yamazaki H, Nishi S, Chou T, Nakagawa Y, Shimada H, Nuno H, Imajoh-Ohmi S, Yoshioka K, Arakawa M.  
Nephrol Dial Transplant. 1995 Dec;10(12):2334-6. No abstract available.  
PMID: 8808236 [PubMed - indexed for MEDLINE]
- 24. [A new mutation in exon 12 of the gp91-phox gene leading to cytochrome b-positive X-linked chronic granulomatous disease.](#)  
Azuma H, Oomi H, Sasaki K, Kawabata I, Sakaino T, Koyano S, Suzutani T, Nuno H, Okuno A.  
Blood. 1995 Jun 1;85(11):3274-7.  
PMID: 7756659 [PubMed - indexed for MEDLINE] **Free Article**
- 25. [A point mutation in gp91-phox of cytochrome b558 of the human NADPH oxidase leading to defective translocation of the cytosolic proteins p47-phox and p67-phox.](#)  
Leusen JH, de Boer M, Bolscher BG, Hilarius PM, Weening RS, Ochs HD, Roos D, Verhoeven AJ.  
J Clin Invest. 1994 May;93(5):2120-6.  
PMID: 8182143 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 26. [Homologous dinucleotide \(GT or TG\) deletion in Japanese patients with chronic granulomatous disease with p47-phox deficiency.](#)  
Iwata M, Nuno H, Yamazaki H, Nakano T, Niwa H, Tsuruta S, Ohga S, Ohmi S, Kanegasaki S, Matsuda I.  
Biochem Biophys Res Commun. 1994 Mar 30;199(3):1372-7.  
PMID: 8147881 [PubMed - indexed for MEDLINE]

# PubMed

Search: p47phox and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (6)

[Manage Filters](#)

Display Settings: Summary, 20 per page, Sorted by Recently Added

**Are you looking for gene information?**

Source: Gene Database

[See 153 articles](#) about **p47phox** gene function**p47phox** neutrophil cytosolic factor 1 [Ciona intestinalis]**p47phox** in [Ciona intestinalis](#) | [Takifugu rubripes](#) | [Oncorhynchus mykiss](#) | [All 8 Gene records](#)**Results: 6**

- [Chronic granulomatous disease caused by mutations other than the common GT deletion in NCF1, the gene encoding the p47phox component of the phagocyte NADPH oxidase.](#)  
1. Roos D, de Boer M, Köker MY, Dekker J, Singh-Gupta V, Ahlin A, Palmblad J, Sanal O, Kurenko-Deptuch M, Jolles S, Wolach B. Hum Mutat. 2006 Dec;27(12):1218-29.  
PMID: 16972229 [PubMed - indexed for MEDLINE]
- [From transcriptome to proteome: differentially expressed proteins identified in synovial tissue of patients suffering from rheumatoid arthritis and osteoarthritis by an initial screen with a panel of 791 antibodies.](#)  
2. Lorenz P, Ruschpler P, Koczan D, Stiehl P, Thiesen HJ. Proteomics. 2003 Jun;3(6):991-1002.  
PMID: 12833524 [PubMed - indexed for MEDLINE]
- [Molecular and functional characterization of a new X-linked chronic granulomatous disease variant \(X91+\) case with a double missense mutation in the cytosolic gp91phox C-terminal tail.](#)  
3. Stasia MJ, Lardy B, Maturana A, Rousseau P, Martel C, Bordigoni P, Demaurex N, Morel F. Biochim Biophys Acta. 2002 Apr 24;1586(3):316-30.  
PMID: 11997083 [PubMed - indexed for MEDLINE]
- [Diagnosis and carrier detection of chronic granulomatous disease in five families by flow cytometry.](#)  
4. Crockard AD, Thompson JM, Boyd NA, Haughton DJ, McCluskey DR, Turner CP. Int Arch Allergy Immunol. 1997 Oct;114(2):144-52.  
PMID: 9338608 [PubMed - indexed for MEDLINE]
- [A mutation located at the 5' splice junction sequence of intron 3 in the p67phox gene causes the lack of p67phox mRNA in a patient with chronic granulomatous disease.](#)  
5. Tanugi-Cholley LC, Issartel JP, Lunardi J, Freycon F, Morel F, Vignais PV. Blood. 1995 Jan 1;85(1):242-9.  
PMID: 7803798 [PubMed - indexed for MEDLINE] **Free Article**
- [Severe infectious complications in a girl suffering from atopic dermatitis were found to be due to chronic granulomatous disease.](#)  
6. Jung K, Elsner J, Emmendörffer A, Bittrich A, Lohmann-Matthes ML, Roesler J. Acta Derm Venereol. 1993 Dec;73(6):433-6.  
PMID: 7906455 [PubMed - indexed for MEDLINE]

Display Settings: Summary, Sorted by Recently Added

**Are you looking for gene information?**

Source: Gene Database

[See 153 articles](#) about **p47phox** gene function**p47phox** neutrophil cytosolic factor 1 [Ciona intestinalis]**p47phox** in [Ciona intestinalis](#) | [Takifugu rubripes](#) | [Oncorhynchus mykiss](#) | [All 8 Gene records](#)**Results: 3**

- [Chronic granulomatous disease caused by mutations other than the common GT deletion in NCF1, the gene encoding the p47phox component of the phagocyte NADPH oxidase.](#)
  1. Roos D, de Boer M, Köker MY, Dekker J, Singh-Gupta V, Ahlin A, Palmblad J, Sanal O, Kurenko-Deptuch M, Jolles S, Wolach B. Hum Mutat. 2006 Dec;27(12):1218-29. PMID: 16972229 [PubMed - indexed for MEDLINE]
- [Diagnosis and carrier detection of chronic granulomatous disease in five families by flow cytometry.](#)
  2. Crockard AD, Thompson JM, Boyd NA, Haughton DJ, McCluskey DR, Turner CP. Int Arch Allergy Immunol. 1997 Oct;114(2):144-52. PMID: 9338608 [PubMed - indexed for MEDLINE]
- [Severe infectious complications in a girl suffering from atopic dermatitis were found to be due to chronic granulomatous disease.](#)
  3. Jung K, Elsner J, Emmendorffer A, Bittrich A, Lohmann-Matthes ML, Roesler J. Acta Derm Venereol. 1993 Dec;73(6):433-6. PMID: 7906455 [PubMed - indexed for MEDLINE]

Display Settings: Abstract

**Limits Activated:** Humans, Publication Date to 2010/12/1 [Change](#) | [Remove](#)[Clin Immunol.](#) 2008 Aug;128(2):117-26.

## Focus on FOCIS: the continuing diagnostic challenge of autosomal recessive chronic granulomatous disease.

[Yu G](#), [Hong DK](#), [Dionis KY](#), [Rae J](#), [Heyworth PG](#), [Curnutte JT](#), [Lewis DB](#).

Division of Immunology and Transplantation Biology, Department of Pediatrics, Stanford University School of Medicine, Stanford, CA 94305, USA.

### Abstract

Chronic granulomatous disease (CGD) is a primary immunodeficiency of defective neutrophil oxidative burst activity due to mutations in the genes CYBA, NCF-1, NCF-2, and CYBB, which respectively encode the p22-phox, p47-phox, p67-phox, and gp91-phox subunits. CGD usually presents in early childhood with recurrent or severe infection with catalase-positive bacteria and fungi. We present an unusual case of CGD in which *Burkholderia cepacia* lymphadenitis developed in a previously healthy 10-year-old girl. Flow cytometric analysis of dihydrorhodamine (DHR)-labeled neutrophils performed by a CLIA-approved outside reference laboratory was reported as normal. However, we found that this patient's neutrophil oxidative burst activity in DHR assays was substantially reduced but not absent. A selective decrease in intracellular staining for p67-phox suggested the diagnosis of autosomal recessive CGD due to NCF-2 gene mutations, and a novel homozygous and hypomorphic NCF-2 gene mutation was found. The potential mechanisms for this delayed and mild presentation of CGD are discussed.

PMID: 18625437 [PubMed - indexed for MEDLINE]

[Publication Types](#), [MeSH Terms](#), [Substances](#)[LinkOut](#) - more resources

# PubMed

**Search:** NCF2 and case controls AND Autosomal chronic granulomatous disease

U.S. National Library of Medicine  
National Institutes of Health

See the search [details](#).

No items found.

**Limits Activated:** Publication Date to 2010/12/1 [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 80 articles](#) about **NCF2** gene function

**NCF2** neutrophil cytosolic factor 2 [Homo sapiens]

**nfc2** in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 17 Gene records](#)

# PubMed

Search: NCF2 and Autosomal chronic granulomatous disease

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (10)

Display Settings: Summary, 20 per page, Sorted by Recently Added

[Manage Filters](#)We found [1 article](#) by title matching your search:

[Genes for two autosomal recessive forms of chronic granulomatous disease assigned to 1q25 \(NCF2\) and 7q11.23 \(NCF1\).](#) Francke U et al. *Am J Hum Genet.* (1990)

## Results: 10

- [Molecular basis of autosomal recessive chronic granulomatous disease in iran.](#)
  1. Teimourian S, de Boer M, Roos D.  
*J Clin Immunol.* 2010 Jul;30(4):587-92. Epub 2010 Apr 21.  
PMID: 20407811 [PubMed - indexed for MEDLINE]
- [Hematologically important mutations: the autosomal recessive forms of chronic granulomatous disease \(second update\).](#)
  2. Roos D, Kuhns DB, Maddalena A, Bustamante J, Kannengiesser C, de Boer M, van Leeuwen K, Köker MY, Wolach B, Roesler J, Malech HL, Holland SM, Gallin JI, Stasia MJ.  
*Blood Cells Mol Dis.* 2010 Apr 15;44(4):291-9. Epub 2010 Feb 18. Review.  
PMID: 20167518 [PubMed - indexed for MEDLINE]
- [Ocular manifestations in chronic granulomatous disease in Saudi Arabia.](#)
  3. Al-Muhsen S, Al-Hemidan A, Al-Shehri A, Al-Harbi A, Al-Ghonaïum A, Al-Saud B, Al-Mousa H, Al-Dhekri H, Amaout R, Al-Mohsen I, Alsmadi O.  
*J AAPOS.* 2009 Aug;13(4):396-9.  
PMID: 19683193 [PubMed - indexed for MEDLINE]
- [Four different NCF2 mutations in six families from Turkey and an overview of NCF2 gene mutations.](#)
  4. Köker MY, Sanal O, van Leeuwen K, de Boer M, Metin A, Patiroğlu T, Özgür TT, Tezcan I, Roos D.  
*Eur J Clin Invest.* 2009 Oct;39(10):942-51. Epub 2009 Jul 17.  
PMID: 19624736 [PubMed - indexed for MEDLINE]
- [First report of clinical, functional, and molecular investigation of chronic granulomatous disease in nine Jordanian families.](#)
  5. Bakri FG, Martel C, Khuri-Bulos N, Mahafzah A, El-Khateeb MS, Al-Wahadneh AM, Hayajneh WA, Hamamy HA, Maquet E, Molin M, Stasia MJ.  
*J Clin Immunol.* 2009 Mar;29(2):215-30. Epub 2008 Sep 5.  
PMID: 18773283 [PubMed - indexed for MEDLINE]
- [Focus on FOCIS: the continuing diagnostic challenge of autosomal recessive chronic granulomatous disease.](#)
  6. Yu G, Hong DK, Dionis KY, Rae J, Heyworth PG, Curnutte JT, Lewis DB.  
*Clin Immunol.* 2008 Aug;128(2):117-26.  
PMID: 18625437 [PubMed - indexed for MEDLINE]
- [Molecular epidemiology of chronic granulomatous disease in a series of 80 kindreds: identification of 31 novel mutations.](#)
  7. Kannengiesser C, Gérard B, El Benna J, Henri D, Kroviarski Y, Chollet-Martin S, Gougerot-Pocidalò MA, Elbim C, Grandchamp B.  
*Hum Mutat.* 2008 Sep;29(9):E132-49.  
PMID: 18546332 [PubMed - indexed for MEDLINE]
- [Essential role of nuclear factor-kappaB for NADPH oxidase activity in normal and anhidrotic ectodermal dysplasia leukocytes.](#)
  8. Luengo-Blanco M, Prando C, Bustamante J, Aragão-Filho WC, Pereira PV, Rehder J, Padden C, Casanova JL, Newburger PE, Condino-Neto A.  
*Blood.* 2008 Aug 15;112(4):1453-60. Epub 2008 Jun 3.  
PMID: 18523147 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Genetic and mutational heterogeneity of autosomal recessive chronic granulomatous disease in Tunisia.](#)
  9. El Kares R, Barbouche MR, Elloumi-Zghal H, Bejaoui M, Chemli J, Mellouli F, Tebib N, Abdelmoula MS, Boukthir S, Fitouri Z, M'Rad S, Bouslama K, Touiri H, Abdelhak S, Dellagi MK.  
*J Hum Genet.* 2006;51(10):887-95. Epub 2006 Aug 26.  
PMID: 16937026 [PubMed - indexed for MEDLINE]
- [Genes for two autosomal recessive forms of chronic granulomatous disease assigned to 1q25 \(NCF2\) and 7q11.23 \(NCF1\).](#)
  10. Francke U, Hsieh CL, Foellmer BE, Lomax KJ, Malech HL, Leto TL.  
*Am J Hum Genet.* 1990 Sep;47(3):483-92.  
PMID: 2393022 [PubMed - indexed for MEDLINE] **Free PMC Article**

Display Settings: Summary, 20 per page, Sorted by Recently Added

Limits Activated: Humans [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 78 articles](#) about **p67phox** gene function**p67phox** neutrophil cytosolic factor 2 [Ciona intestinalis]**p67phox** in [Ciona intestinalis](#) | [Takifugu rubripes](#) | [Homo sapiens](#) | [All 6 Gene records](#)

## Results: 8

- [Focus on FOCIS: the continuing diagnostic challenge of autosomal recessive chronic granulomatous disease.](#)
- 1. Yu G, Hong DK, Dionis KY, Rae J, Heyworth PG, Curnutte JT, Lewis DB.  
Clin Immunol. 2008 Aug;128(2):117-26.  
PMID: 18625437 [PubMed - indexed for MEDLINE]
- [A 1.1-kb duplication in the p67-phox gene causes chronic granulomatous disease.](#)
- 2. Borgato L, Bonizzato A, Lunardi C, Dusi S, Andrioli G, Scarperi A, Corrocher R.  
Hum Genet. 2001 Jun;108(6):504-10.  
PMID: 11499676 [PubMed - indexed for MEDLINE]
- [Autosomal recessive chronic granulomatous disease caused by novel mutations in NCF-2, the gene encoding the p67-phox component of phagocyte NADPH oxidase.](#)
- 3. Noack D, Rae J, Cross AR, Muñoz J, Salmen S, Mendoza JA, Rossi N, Curnutte JT, Heyworth PG.  
Hum Genet. 1999 Nov;105(5):460-7.  
PMID: 10598813 [PubMed - indexed for MEDLINE]
- [Molecular characterization of autosomal recessive chronic granulomatous disease caused by a defect of the nicotinamide adenine dinucleotide phosphate \(reduced form\) oxidase component p67-phox.](#)
- 4. Patiño PJ, Rae J, Noack D, Erickson R, Ding J, de Olarte DG, Curnutte JT.  
Blood. 1999 Oct 1;94(7):2505-14.  
PMID: 10498624 [PubMed - indexed for MEDLINE] **Free Article**
- [Aspergillus osteomyelitis in a child who has p67-phox-deficient chronic granulomatous disease.](#)
- 5. Tsumura N, Akasu Y, Yamane H, Ikezawa S, Hirata T, Oda K, Sakata Y, Shirahama M, Inoue A, Kato H.  
Kurume Med J. 1999;46(1):87-90.  
PMID: 10319618 [PubMed - indexed for MEDLINE] **Free Article**
- [Diagnosis and carrier detection of chronic granulomatous disease in five families by flow cytometry.](#)
- 6. Crockard AD, Thompson JM, Boyd NA, Haughton DJ, McCluskey DR, Turner CP.  
Int Arch Allergy Immunol. 1997 Oct;114(2):144-52.  
PMID: 9338608 [PubMed - indexed for MEDLINE]
- [Disturbed interaction of p21-rac with mutated p67-phox causes chronic granulomatous disease.](#)
- 7. Leusen JH, de Klein A, Hilarius PM, Ahlin A, Palmblad J, Smith CI, Diekmann D, Hall A, Verhoeven AJ, Roos D.  
J Exp Med. 1996 Oct 1;184(4):1243-9.  
PMID: 8879195 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Two-exon skipping due to a point mutation in p67-phox--deficient chronic granulomatous disease.](#)
- 8. Aoshima M, Nuno H, Shimazu M, Shimizu S, Tatsuzawa O, Kenney RT, Kanegasaki S.  
Blood. 1996 Sep 1;88(5):1841-5.  
PMID: 8781442 [PubMed - indexed for MEDLINE] **Free Article**



# PubMed

Search: IL12RB1 and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (23)

[Manage Filters](#)

Display Settings: Summary, 50 per page, Sorted by Recently Added

## Results: 23

- [Oesophageal squamous cell carcinoma in a young adult with IL-12R beta 1 deficiency.](#)
  1. Cárdenes M, Angel-Moreno A, Fieschi C, Sologuren I, Colino E, Molinés A, García-Laorden MI, Campos-Herrero MI, Andújar-Sánchez M, Casanova JL, Rodríguez-Gallego C.  
J Med Genet. 2010 Sep;47(9):635-7.  
PMID: 20798129 [PubMed - indexed for MEDLINE]
  
- [Mycobacterium bovis BCG-itis and cervical lymphadenitis due to Salmonella enteritidis in a patient with complete interleukin-12/-23 receptor beta1 deficiency.](#)
  2. van de Vosse E, Ottenhoff TH, de Paus RA, Verhard EM, de Boer T, van Dissel JT, Kuijpers TW.  
Infection. 2010 Apr;38(2):128-30. Epub 2010 Mar 5.  
PMID: 20213287 [PubMed - indexed for MEDLINE]
  
- [Bacille Calmette-Guérin infection and disease with fatal outcome associated with a point mutation in the interleukin-12/interleukin-23 receptor beta-1 chain in two Mexican families.](#)
  3. Pedraza-Sánchez S, Herrera-Barrios MT, Aldana-Vergara R, Neumann-Ordoñez M, González-Hernández Y, Sada-Díaz E, de Beaucoudrey L, Casanova JL, Torres-Rojas M.  
Int J Infect Dis. 2010 Sep;14 Suppl 3:e256-60. Epub 2010 Feb 19.  
PMID: 20171917 [PubMed - indexed for MEDLINE]
  
- [A novel mutation of the IL12RB1 gene in a child with nocardiosis, recurrent salmonellosis and neurofibromatosis type I: first case report from Thailand.](#)
  4. Luangwedchakarn V, Jirapongsaranurak O, NiemeLa JE, Thepthai C, Chokephaibulkit K, Sukpanichnant S, Pacharn P, Visitsunthorn N, Vichyanond P, Piboonpocanun S, Fleisher TA.  
Asian Pac J Allergy Immunol. 2009 Jun-Sep;27(2-3):161-5.  
PMID: 19839503 [PubMed - indexed for MEDLINE]
  
- [Interleukin-12/-23 receptor beta 1 deficiency in an infant with draining BCG lymphadenitis.](#)
  5. Asilsoy S, Bilgili G, Turul T, Dizdärer C, Kalkan S, Yasli H, Can D, Genel F, Sanal O.  
Pediatr Int. 2009 Apr;51(2):310-2. No abstract available.  
PMID: 19379268 [PubMed - indexed for MEDLINE]
  
- [Chinese patients with defective IL-12/23-interferon-gamma circuit in Taiwan: partial dominant interferon-gamma receptor 1 mutation presenting as cutaneous granuloma and IL-12 receptor beta1 mutation as pneumatocele.](#)
  6. Lee WI, Huang JL, Lin TY, Hsueh C, Wong AM, Hsieh MY, Chiu CH, Jaing TH.  
J Clin Immunol. 2009 Mar;29(2):238-45. Epub 2008 Oct 1.  
PMID: 18972195 [PubMed - indexed for MEDLINE]
  
- [Simultaneous presentation of 2 rare hereditary immunodeficiencies: IL-12 receptor beta1 deficiency and ataxia-telangiectasia.](#)
  7. Ehlalay M, de Beaucoudrey L, Fike F, Nahas SA, Feinberg J, Casanova JL, Gatti RA.  
J Allergy Clin Immunol. 2008 Dec;122(6):1217-9. Epub 2008 Aug 20. No abstract available.  
PMID: 18718650 [PubMed - indexed for MEDLINE]
  
- [A case of interleukin-12 receptor beta-1 deficiency with recurrent leishmaniasis.](#)
  8. Sanal O, Turkkani G, Gumruk F, Yel L, Secmeer G, Tezcan I, Kara A, Ersoy F.  
Pediatr Infect Dis J. 2007 Apr;26(4):366-8.  
PMID: 17414409 [PubMed - indexed for MEDLINE]
  
- [A novel X-linked recessive form of Mendelian susceptibility to mycobacterial disease.](#)
  9. Bustamante J, Picard C, Fieschi C, Filipe-Santos O, Feinberg J, Perronne C, Chapgier A, de Beaucoudrey L, Vogt G, Sanlaville D, Lemainque A, Emile JF, Abel L, Casanova JL.  
J Med Genet. 2007 Feb;44(2):e65.  
PMID: 17293536 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
  
- [Recurrent Salmonella bacteremia in interleukin-12 receptor beta1 deficiency.](#)
  10. Ozen M, Ceyhan M, Sanal O, Bayraktar M, Mesci L.  
J Trop Pediatr. 2006 Aug;52(4):296-8. Epub 2006 Mar 10.  
PMID: 16531420 [PubMed - indexed for MEDLINE]

- [Complete deficiency of the IL-12 receptor beta1 chain: three unrelated Turkish children with unusual clinical features.](#)  
 11. Tanir G, Dogu F, Tuygun N, Ikinciogullari A, Aytekin C, Aydemir C, Yuksek M, Boduroglu EC, de Beaucoudrey L, Fieschi C, Feinberg J, Casanova JL, Babacan E.  
 Eur J Pediatr. 2006 Jun;165(6):415-7. Epub 2006 Feb 24. No abstract available.  
 PMID: 16501992 [PubMed - indexed for MEDLINE]
- [Presentation of interleukin-12/-23 receptor beta1 deficiency with various clinical symptoms of Salmonella infections.](#)  
 12. Sanal O, Turul T, De Boer T, Van de Vosse E, Yalcin I, Tezcan I, Sun C, Memis L, Ottenhoff TH, Ersoy F.  
 J Clin Immunol. 2006 Jan;26(1):1-6.  
 PMID: 16418797 [PubMed - indexed for MEDLINE]
- [Thirteen years of culture-positive M. bovis-BCG infection in an IL-12Rbeta1 deficient patient: treatment and outcome.](#)  
 13. Rosenzweig SD, Yancoski J, Bernasconi A, Krasovec S, Marciano BE, Casimir L, Berberian G, Símboli N, Rousseau M, Calle G.  
 J Infect. 2006 Mar;52(3):e69-72. Epub 2005 Sep 19.  
 PMID: 16181679 [PubMed - indexed for MEDLINE]
- [Paracoccidioides brasiliensis disseminated disease in a patient with inherited deficiency in the beta1 subunit of the interleukin \(IL\)-12/IL-23 receptor.](#)  
 14. Moraes-Vasconcelos D, Grumach AS, Yamaguti A, Andrade ME, Fieschi C, de Beaucoudrey L, Casanova JL, Duarte AJ.  
 Clin Infect Dis. 2005 Aug 15;41(4):e31-7. Epub 2005 Jul 15.  
 PMID: 16028144 [PubMed - indexed for MEDLINE] **Free Article**
- [A novel form of complete IL-12/IL-23 receptor beta1 deficiency with cell surface-expressed nonfunctional receptors.](#)  
 15. Fieschi C, Bosticardo M, de Beaucoudrey L, Boisson-Dupuis S, Feinberg J, Santos OF, Bustamante J, Levy J, Candotti F, Casanova JL.  
 Blood. 2004 Oct 1;104(7):2095-101. Epub 2004 Jun 3.  
 PMID: 15178580 [PubMed - indexed for MEDLINE] **Free Article**
- [Impairment of IL-12-dependent STAT4 nuclear translocation in a patient with recurrent Mycobacterium avium infection.](#)  
 16. Toyoda H, Ido M, Hayashi T, Gabazza EC, Suzuki K, Bu J, Tanaka S, Nakano T, Kamiya H, Chipeta J, Kisenge RR, Kang J, Hori H, Komada Y.  
 J Immunol. 2004 Mar 15;172(6):3905-12.  
 PMID: 15004198 [PubMed - indexed for MEDLINE] **Free Article**
- [\[Salmonella septicemia associated with interleukin 12 receptor beta1 \(IL-12Rbeta1\) deficiency\].](#)  
 17. Carvalho BT, Iazzetti AV, Ferrarini MA, Campos SO, Iazzetti MA, Carlesse FA.  
 J Pediatr (Rio J). 2003 May-Jun;79(3):273-6. Portuguese.  
 PMID: 14506539 [PubMed - indexed for MEDLINE] **Free Article**
- [Clinical tuberculosis in 2 of 3 siblings with interleukin-12 receptor beta1 deficiency.](#)  
 18. Caragol I, Raspall M, Fieschi C, Feinberg J, Larrosa MN, Hernández M, Figueras C, Bertrán JM, Casanova JL, Español T.  
 Clin Infect Dis. 2003 Jul 15;37(2):302-6. Epub 2003 Jul 7.  
 PMID: 12856223 [PubMed - indexed for MEDLINE] **Free Article**
- [Interleukin-12 receptor beta1 deficiency presenting as recurrent Salmonella infection.](#)  
 19. Staretz-Haham O, Melamed R, Lifshitz M, Porat N, Fieschi C, Casanova JL, Levy J.  
 Clin Infect Dis. 2003 Jul 1;37(1):137-40. Epub 2003 Jun 24.  
 PMID: 12830418 [PubMed - indexed for MEDLINE] **Free Article**
- [Inherited disorders of IL-12- and IFNgamma-mediated immunity: a molecular genetics update.](#)  
 20. Döffinger R, Dupuis S, Picard C, Fieschi C, Feinberg J, Barcenás-Morales G, Casanova JL.  
 Mol Immunol. 2002 May;38(12-13):903-9.  
 PMID: 12009568 [PubMed - indexed for MEDLINE]
- [Clinical and genetic heterogeneity of inherited autosomal recessive susceptibility to disseminated Mycobacterium bovis bacille calmette-guérin infection.](#)  
 21. Elloumi-Zghal H, Barbouche MR, Chemli J, Béjaoui M, Harbi A, Snoussi N, Abdelhak S, Dellagi K.  
 J Infect Dis. 2002 May 15;185(10):1468-75. Epub 2002 Apr 30.  
 PMID: 11992283 [PubMed - indexed for MEDLINE] **Free Article**
- [Interleukin-12 receptor beta1 deficiency in a patient with abdominal tuberculosis.](#)  
 22. Altare F, Ensser A, Breiman A, Reichenbach J, Baghdadi JE, Fischer A, Emile JF, Gaillard JL, Meinel E, Casanova JL.  
 J Infect Dis. 2001 Jul 15;184(2):231-6. Epub 2001 Jun 14.  
 PMID: 11424023 [PubMed - indexed for MEDLINE] **Free Article**
- [Missense mutation of the interleukin-12 receptor beta1 chain-encoding gene is associated with impaired immunity against Mycobacterium avium complex infection.](#)  
 23. Sakai T, Matsuoka M, Aoki M, Nosaka K, Mitsuya H.  
 Blood. 2001 May 1;97(9):2688-94.  
 PMID: 11313259 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: il12rb1 deficiency

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (52)

[Manage Filters](#)

Display Settings: Summary, 100 per page, Sorted by Recently Added

## Results: 52

- [Clinical and Host Genetic Characteristics of Mendelian Susceptibility to Mycobacterial Diseases in Japan.](#)
  1. Hoshina T, Takada H, Sasaki-Mihara Y, Kusuhara K, Ohshima K, Okada S, Kobayashi M, Ohara O, Hara T. J Clin Immunol. 2011 Jan 8. [Epub ahead of print]  
PMID: 21221749 [PubMed - as supplied by publisher]
  
- [Oesophageal squamous cell carcinoma in a young adult with IL-12R beta 1 deficiency.](#)
  2. Cárdenes M, Angel-Moreno A, Fieschi C, Sologuren I, Colino E, Molinés A, García-Laorden MI, Campos-Herrero MI, Andújar-Sánchez M, Casanova JL, Rodríguez-Gallego C. J Med Genet. 2010 Sep;47(9):635-7.  
PMID: 20798129 [PubMed - indexed for MEDLINE]
  
- [\[Genetic susceptibility to infectious diseases: immunogenetical approaches to mycobacterial infections and subacute sclerosing panencephalitis\].](#)
  3. Kusuhai K. J UOEH. 2010 Jun 1;32(2):177-94. Review. Japanese.  
PMID: 20549906 [PubMed - indexed for MEDLINE]
  
- [Primary immunodeficiencies of protective immunity to primary infections.](#)
  4. Bousfiha A, Picard C, Boisson-Dupuis S, Zhang SY, Bustamante J, Puel A, Jouanguy E, Ailal F, El-Baghdadi J, Abel L, Casanova JL. Clin Immunol. 2010 May;135(2):204-9. Epub 2010 Mar 16. Review.  
PMID: 20236864 [PubMed - indexed for MEDLINE]
  
- [Mycobacterium bovis BCG-itis and cervical lymphadenitis due to Salmonella enteritidis in a patient with complete interleukin-12/-23 receptor beta1 deficiency.](#)
  5. van de Vosse E, Ottenhoff TH, de Paus RA, Verhard EM, de Boer T, van Dissel JT, Kuijpers TW. Infection. 2010 Apr;38(2):128-30. Epub 2010 Mar 5.  
PMID: 20213287 [PubMed - indexed for MEDLINE]
  
- [Mycobacterium tuberculosis infection induces il12rb1 splicing to generate a novel IL-12Rbeta1 isoform that enhances DC migration.](#)
  6. Robinson RT, Khader SA, Martino CA, Fountain JJ, Teixeira-Coelho M, Pearl JE, Smiley ST, Winslow GM, Woodland DL, Walter MJ, Conejo-Garcia JR, Gubler U, Cooper AM. J Exp Med. 2010 Mar 15;207(3):591-605. Epub 2010 Mar 8. Erratum in: J Exp Med. 2010 Apr 12;207(4):897.  
PMID: 20212068 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [A novel mutation of the IL12RB1 gene in a child with nocardiosis, recurrent salmonellosis and neurofibromatosis type I: first case report from Thailand.](#)
  7. Luangwedchakarn V, Jirapongsaranurak O, NiemeLa JE, Thepthai C, Chokephaibulkit K, Sukpanichnant S, Pacharn P, Visitsunthorn N, Vichyanond P, Piboonpocanun S, Fleisher TA. Asian Pac J Allergy Immunol. 2009 Jun-Sep;27(2-3):161-5.  
PMID: 19839503 [PubMed - indexed for MEDLINE]
  
- [A 475 years-old founder effect involving IL12RB1: a highly prevalent mutation conferring Mendelian Susceptibility to Mycobacterial Diseases in European descendants.](#)
  8. Yancoski J, Rocco C, Bernasconi A, Oleastro M, Bezrodnik L, Vrátnica C, Haerynck F, Rosenzweig SD. Infect Genet Evol. 2009 Jul;9(4):574-80. Epub 2009 Mar 9.  
PMID: 19460324 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Interleukin-12/-23 receptor beta 1 deficiency in an infant with draining BCG lymphadenitis.](#)
  9. Asilsoy S, Bilgili G, Turul T, Dizdärer C, Kalkan S, Yasli H, Can D, Genel F, Sanal O. Pediatr Int. 2009 Apr;51(2):310-2. No abstract available.  
PMID: 19379268 [PubMed - indexed for MEDLINE]
  
- [Antisense-mediated exon skipping to correct IL-12Rbeta1 deficiency in T cells.](#)
  10. van de Vosse E, Verhard EM, de Paus RA, Platenburg GJ, van Deutekom JC, Aartsma-Rus A, van Dissel JT. Blood. 2009 May 7;113(19):4548-55. Epub 2009 Mar 3. Erratum in: Blood. 2009 Nov 12;114(20):4607.  
PMID: 19258592 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Programming for CD8 T cell memory development requires IL-12 or type I IFN.](#)
  11. Xiao Z, Casey KA, Jameson SC, Curtsinger JM, Mescher MF. J Immunol. 2009 Mar 1;182(5):2786-94.  
PMID: 19234173 [PubMed - indexed for MEDLINE] **Free PMC Article**

- 12. [The genetic heterogeneity of mendelian susceptibility to mycobacterial diseases.](#)  
Al-Muhsen S, Casanova JL.  
J Allergy Clin Immunol. 2008 Dec;122(6):1043-51; quiz 1052-3. Review.  
PMID: 19084105 [PubMed - indexed for MEDLINE]
- 13. [Simultaneous presentation of 2 rare hereditary immunodeficiencies: IL-12 receptor beta1 deficiency and ataxia-telangiectasia.](#)  
Ehlayel M, de Beaucoudrey L, Fike F, Nahas SA, Feinberg J, Casanova JL, Gatti RA.  
J Allergy Clin Immunol. 2008 Dec;122(6):1217-9. Epub 2008 Aug 20. No abstract available.  
PMID: 18718650 [PubMed - indexed for MEDLINE]
- 14. [A role for interleukin-12/23 in the maturation of human natural killer and CD56+ T cells in vivo.](#)  
Guia S, Cognet C, de Beaucoudrey L, Tessmer MS, Jouanguy E, Berger C, Filipe-Santos O, Feinberg J, Camcioglu Y, Levy J, Al Jumaah S, Al-Hajjar S, Stephan JL, Fieschi C, Abel L, Brossay L, Casanova JL, Vivier E.  
Blood. 2008 May 15;111(10):5008-16. Epub 2008 Mar 4.  
PMID: 18319400 [PubMed - indexed for MEDLINE] **Free Article**
- 15. [Novel primary immunodeficiencies revealed by the investigation of paediatric infectious diseases.](#)  
Bustamante J, Boisson-Dupuis S, Jouanguy E, Picard C, Puel A, Abel L, Casanova JL.  
Curr Opin Immunol. 2008 Feb;20(1):39-48. Review.  
PMID: 18083507 [PubMed - indexed for MEDLINE]
- 16. [A case of interleukin-12 receptor beta-1 deficiency with recurrent leishmaniasis.](#)  
Sanal O, Turkmani G, Gumruk F, Yel L, Secmeer G, Tezcan I, Kara A, Ersoy F.  
Pediatr Infect Dis J. 2007 Apr;26(4):366-8.  
PMID: 17414409 [PubMed - indexed for MEDLINE]
- 17. [Sex differences in coxsackievirus B3-induced myocarditis: IL-12Rbeta1 signaling and IFN-gamma increase inflammation in males independent from STAT4.](#)  
Frisancho-Kiss S, Nyland JF, Davis SE, Frisancho JA, Barrett MA, Rose NR, Fairweather D.  
Brain Res. 2006 Dec 18;1126(1):139-47. Epub 2006 Sep 1.  
PMID: 16949558 [PubMed - indexed for MEDLINE]
- 18. [Recurrent Salmonella bacteremia in interleukin-12 receptor beta1 deficiency.](#)  
Ozen M, Ceyhan M, Sanal O, Bayraktar M, Mesci L.  
J Trop Pediatr. 2006 Aug;52(4):296-8. Epub 2006 Mar 10.  
PMID: 16531420 [PubMed - indexed for MEDLINE]
- 19. [Human host genetic factors in mycobacterial and Salmonella infection: lessons from single gene disorders in IL-12/IL-23-dependent signaling that affect innate and adaptive immunity.](#)  
van de Vosse E, Ottenhoff TH.  
Microbes Infect. 2006 Apr;8(4):1167-73. Epub 2006 Jan 18. Review.  
PMID: 16513390 [PubMed - indexed for MEDLINE]
- 20. [Complete deficiency of the IL-12 receptor beta1 chain: three unrelated Turkish children with unusual clinical features.](#)  
Tanir G, Dogu F, Tuygun N, Ikinociogullari A, Aytekin C, Aydemir C, Yuksek M, Boduroglu EC, de Beaucoudrey L, Fieschi C, Feinberg J, Casanova JL, Babacan E.  
Eur J Pediatr. 2006 Jun;165(6):415-7. Epub 2006 Feb 24. No abstract available.  
PMID: 16501992 [PubMed - indexed for MEDLINE]
- 21. [Presentation of interleukin-12/-23 receptor beta1 deficiency with various clinical symptoms of Salmonella infections.](#)  
Sanal O, Turul T, De Boer T, Van de Vosse E, Yalcin I, Tezcan I, Sun C, Memis L, Ottenhoff TH, Ersoy F.  
J Clin Immunol. 2006 Jan;26(1):1-6.  
PMID: 16418797 [PubMed - indexed for MEDLINE]
- 22. [Molecular complementation of IL-12Rbeta1 deficiency reveals functional differences between IL-12Rbeta1 alleles including partial IL-12Rbeta1 deficiency.](#)  
van de Vosse E, de Paus RA, van Dissel JT, Ottenhoff TH.  
Hum Mol Genet. 2005 Dec 15;14(24):3847-55. Epub 2005 Nov 17.  
PMID: 16293671 [PubMed - indexed for MEDLINE] **Free Article**
- 23. [IL-12-independent Th1 polarization in human mononuclear cells infected with varicella-zoster virus.](#)  
Yu HR, Chen RF, Hong KC, Bong CN, Lee WI, Kuo HC, Yang KD.  
Eur J Immunol. 2005 Dec;35(12):3664-72.  
PMID: 16285008 [PubMed - indexed for MEDLINE]
- 24. [\[Genetic susceptibility to mycobacterial disease: Mendelian disorders of the interleukin-12 -interferon-gamma axis\].](#)  
Catherinot E, Fieschi C, Feinberg J, Casanova JL, Couderc LJ.  
Rev Mal Respir. 2005 Nov;22(5 Pt 1):767-76. Review. French.  
PMID: 16272979 [PubMed - indexed for MEDLINE]

- [Thirteen years of culture-positive \*M. bovis\*-BCG infection in an IL-12Rbeta1 deficient patient: treatment and outcome.](#)  
25. Rosenzweig SD, Yancoski J, Bernasconi A, Krasovec S, Marciano BE, Casimir L, Berberian G, Símboli N, Rousseau M, Calle G. *J Infect.* 2006 Mar;52(3):e69-72. Epub 2005 Sep 19.  
PMID: 16181679 [PubMed - indexed for MEDLINE]
- [Interleukin \(IL\)-12 receptor beta1 or IL-12 receptor beta 2 deficiency in mice indicates that IL-12 and IL-23 are not essential for host recovery from viral encephalitis.](#)  
26. Ireland DD, Palian BM, Reiss CS. *Viral Immunol.* 2005;18(2):397-402.  
PMID: 16035952 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Paracoccidioides brasiliensis disseminated disease in a patient with inherited deficiency in the beta1 subunit of the interleukin \(IL\)-12/IL-23 receptor.](#)  
27. Moraes-Vasconcelos D, Grumach AS, Yamaguti A, Andrade ME, Fieschi C, de Beaucoudrey L, Casanova JL, Duarte AJ. *Clin Infect Dis.* 2005 Aug 15;41(4):e31-7. Epub 2005 Jul 15.  
PMID: 16028144 [PubMed - indexed for MEDLINE] **Free Article**
- [Defects in the interferon-gamma and interleukin-12 pathways.](#)  
28. Rosenzweig SD, Holland SM. *Immunol Rev.* 2005 Feb;203:38-47. Review.  
PMID: 15661020 [PubMed - indexed for MEDLINE]
- [Interferon-gamma protects against chronic viral myocarditis by reducing mast cell degranulation, fibrosis, and the profibrotic cytokines transforming growth factor-beta 1, interleukin-1 beta, and interleukin-4 in the heart.](#)  
29. Fairweather D, Frisancho-Kiss S, Yusing SA, Barrett MA, Davis SE, Gatewood SJ, Njoku DB, Rose NR. *Am J Pathol.* 2004 Dec;165(6):1883-94.  
PMID: 15579433 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Inherited disorders of cytokines.](#)  
30. Picard C, Casanova JL. *Curr Opin Pediatr.* 2004 Dec;16(6):648-58. Review.  
PMID: 15548928 [PubMed - indexed for MEDLINE]
- [Retroviral-mediated gene transfer restores IL-12 and IL-23 signaling pathways in T cells from IL-12 receptor beta1-deficient patients.](#)  
31. Bosticardo M, Witte I, Fieschi C, Novelli F, Casanova JL, Candotti F. *Mol Ther.* 2004 Jun;9(6):895-901.  
PMID: 15194056 [PubMed - indexed for MEDLINE]
- [A novel form of complete IL-12/IL-23 receptor beta1 deficiency with cell surface-expressed nonfunctional receptors.](#)  
32. Fieschi C, Bosticardo M, de Beaucoudrey L, Boisson-Dupuis S, Feinberg J, Santos OF, Bustamante J, Levy J, Candotti F, Casanova JL. *Blood.* 2004 Oct 1;104(7):2095-101. Epub 2004 Jun 3.  
PMID: 15178580 [PubMed - indexed for MEDLINE] **Free Article**
- [The genetics of nontuberculous mycobacterial infection.](#)  
33. Newport M. *Expert Rev Mol Med.* 2003 Feb 28;5(6):1-13. Review.  
PMID: 14987409 [PubMed - indexed for MEDLINE]
- [IL-12 receptor deficiency revisited: IL-23-mediated signaling is also impaired in human genetic IL-12 receptor beta1 deficiency.](#)  
34. Hoeve MA, de Boer T, Langenberg DM, Sanal O, Verreck FA, Ottenhoff TH. *Eur J Immunol.* 2003 Dec;33(12):3393-7.  
PMID: 14635048 [PubMed - indexed for MEDLINE]
- [\[Salmonella septicemia associated with interleukin 12 receptor beta1 \(IL-12Rbeta1\) deficiency\].](#)  
35. Carvalho BT, Iazzetti AV, Ferrarini MA, Campos SO, Iazzetti MA, Carlesse FA. *J Pediatr (Rio J).* 2003 May-Jun;79(3):273-6. Portuguese.  
PMID: 14506539 [PubMed - indexed for MEDLINE] **Free Article**
- [Clinical tuberculosis in 2 of 3 siblings with interleukin-12 receptor beta1 deficiency.](#)  
36. Caragol I, Raspall M, Fieschi C, Feinberg J, Larrosa MN, Hernández M, Figueras C, Bertrán JM, Casanova JL, Español T. *Clin Infect Dis.* 2003 Jul 15;37(2):302-6. Epub 2003 Jul 7.  
PMID: 12856223 [PubMed - indexed for MEDLINE] **Free Article**
- [Interleukin-12 receptor beta1 deficiency presenting as recurrent Salmonella infection.](#)  
37. Staretz-Haham O, Melamed R, Lifshitz M, Porat N, Fieschi C, Casanova JL, Levy J. *Clin Infect Dis.* 2003 Jul 1;37(1):137-40. Epub 2003 Jun 24.  
PMID: 12830418 [PubMed - indexed for MEDLINE] **Free Article**

38. [Severe Mycobacterium bovis BCG infections in a large series of novel IL-12 receptor beta1 deficient patients and evidence for the existence of partial IL-12 receptor beta1 deficiency.](#)  
Lichtenauer-Kaligis EG, de Boer T, Verreck FA, van Voorden S, Hoeve MA, van de Vosse E, Ersoy F, Tezcan I, van Dissel JT, Sanal O, Ottenhoff TH.  
Eur J Immunol. 2003 Jan;33(1):59-69.  
PMID: 12594833 [PubMed - indexed for MEDLINE]
39. [Low penetrance, broad resistance, and favorable outcome of interleukin 12 receptor beta1 deficiency: medical and immunological implications.](#)  
Fieschi C, Dupuis S, Catherinot E, Feinberg J, Bustamante J, Breiman A, Altare F, Baretto R, Le Deist F, Kayal S, Koch H, Richter D, Brezina M, Aksu G, Wood P, Al-Jumaah S, Raspall M, Da Silva Duarte AJ, Tuerlinckx D, Virelizier JL, Fischer A, Enright A, Bernhöft J, Cleary AM, Vermynen C, Rodriguez-Gallego C, Davies G, Blüters-Sawatzki R, Siegrist CA, Ehlayel MS, Novelli V, Haas WH, Levy J, Freihorst J, Al-Hajjar S, Nadal D, De Moraes Vasconcelos D, Jeppsson O, Kutukculer N, Freceerova K, Caragol I, Lammas D, Kumararatne DS, Abel L, Casanova JL.  
J Exp Med. 2003 Feb 17;197(4):527-35.  
PMID: 12591909 [PubMed - indexed for MEDLINE] **Free PMC Article**
40. [Clinical and genetic heterogeneity of inherited autosomal recessive susceptibility to disseminated Mycobacterium bovis bacille calmette-guérin infection.](#)  
Elloumi-Zghal H, Barbouche MR, Chemli J, Béjaoui M, Harbi A, Snoussi N, Abdelhak S, Dellagi K.  
J Infect Dis. 2002 May 15;185(10):1468-75. Epub 2002 Apr 30.  
PMID: 11992283 [PubMed - indexed for MEDLINE] **Free Article**
41. [Interleukin-12 receptor beta1 deficiency in a patient with abdominal tuberculosis.](#)  
Altare F, Ensser A, Breiman A, Reichenbach J, Baghdadi JE, Fischer A, Emile JF, Gaillard JL, Meinel E, Casanova JL.  
J Infect Dis. 2001 Jul 15;184(2):231-6. Epub 2001 Jun 14.  
PMID: 11424023 [PubMed - indexed for MEDLINE] **Free Article**
42. [Impaired interferon gamma-mediated immunity and susceptibility to mycobacterial infection in childhood.](#)  
Remus N, Reichenbach J, Picard C, Rietschel C, Wood P, Lammas D, Kumararatne DS, Casanova JL.  
Pediatr Res. 2001 Jul;50(1):8-13. Review.  
PMID: 11420412 [PubMed - indexed for MEDLINE]
43. [A heritable defect in IL-12 signaling in B10.Q/J mice. I. In vitro analysis.](#)  
Ortmann R, Smeltz R, Yap G, Sher A, Shevach EM.  
J Immunol. 2001 May 1;166(9):5712-9.  
PMID: 11313413 [PubMed - indexed for MEDLINE] **Free Article**
44. [Missense mutation of the interleukin-12 receptor beta1 chain-encoding gene is associated with impaired immunity against Mycobacterium avium complex infection.](#)  
Sakai T, Matsuoka M, Aoki M, Nosaka K, Mitsuya H.  
Blood. 2001 May 1;97(9):2688-94.  
PMID: 11313259 [PubMed - indexed for MEDLINE] **Free Article**
45. [Human interferon-gamma-mediated immunity is a genetically controlled continuous trait that determines the outcome of mycobacterial invasion.](#)  
Dupuis S, Döffinger R, Picard C, Fieschi C, Altare F, Jouanguy E, Abel L, Casanova JL.  
Immunol Rev. 2000 Dec;178:129-37. Review.  
PMID: 11213797 [PubMed - indexed for MEDLINE]
46. [Genetic heterogeneity of Mendelian susceptibility to mycobacterial infection.](#)  
Döffinger R, Altare F, Casanova JL.  
Microbes Infect. 2000 Nov;2(13):1553-7. Review.  
PMID: 11113374 [PubMed - indexed for MEDLINE]
47. [Interferon-gamma and interleukin-12 pathway defects and human disease.](#)  
Dorman SE, Holland SM.  
Cytokine Growth Factor Rev. 2000 Dec;11(4):321-33. Review.  
PMID: 10959079 [PubMed - indexed for MEDLINE]
48. [Residual type 1 immunity in patients genetically deficient for interleukin 12 receptor beta1 \(IL-12Rbeta1\): evidence for an IL-12Rbeta1-independent pathway of IL-12 responsiveness in human T cells.](#)  
Verhagen CE, de Boer T, Smits HH, Verreck FA, Wierenga EA, Kurimoto M, Lammas DA, Kumararatne DS, Sanal O, Kroon FP, van Dissel JT, Sinigaglia F, Ottenhoff TH.  
J Exp Med. 2000 Aug 21;192(4):517-28.  
PMID: 10952721 [PubMed - indexed for MEDLINE] **Free PMC Article**
49. [Deficiency in tumor necrosis factor alpha activity does not impair early protective Th1 responses against blood-stage malaria.](#)  
Sam H, Su Z, Stevenson MM.  
Infect Immun. 1999 May;67(5):2660-4.  
PMID: 10225939 [PubMed - indexed for MEDLINE] **Free PMC Article**

- 50. [Severe mycobacterial and Salmonella infections in interleukin-12 receptor-deficient patients.](#)  
de Jong R, Altare F, Haagen IA, Elferink DG, Boer T, van Breda Vriesman PJ, Kabel PJ, Draaisma JM, van Dissel JT, Kroon FP, Casanova JL, Ottenhoff TH.  
Science. 1998 May 29;280(5368):1435-8.  
PMID: 9603733 [PubMed - indexed for MEDLINE] **Free Article**
  
- 51. [Characterization of IL-12 receptor beta1 chain \(IL-12Rbeta1\)-deficient mice: IL-12Rbeta1 is an essential component of the functional mouse IL-12 receptor.](#)  
Wu C, Ferrante J, Gately MK, Magram J.  
J Immunol. 1997 Aug 15;159(4):1658-65.  
PMID: 9257825 [PubMed - indexed for MEDLINE]
  
- 52. [Lack of IL-12 signaling in human allergen-specific Th2 cells.](#)  
Hilkens CM, Messer G, Tesselaar K, van Rietschoten AG, Kapsenberg ML, Wierenga EA.  
J Immunol. 1996 Nov 15;157(10):4316-21.  
PMID: 8906805 [PubMed - indexed for MEDLINE]



## PubMed

Search: INTERLEUKIN-12 RECEPTOR DEFICIENCY and not mice not reviews

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (81)

Display Settings: Summary, 100 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 81

- [Interleukin-12 receptor  \$\beta\$ 1 deficiency predisposing to disseminated Coccidioidomycosis.](#)
1. Vinh DC, Schwartz B, Hsu AP, Miranda DJ, Valdez PA, Fink D, Lau KP, Long-Priel D, Kuhns DB, Uzel G, Pittaluga S, Hoover S, Galgiani JN, Holland SM.  
Clin Infect Dis. 2011 Feb;52(4):e99-e102. No abstract available.  
PMID: 21258095 [PubMed - in process] **Free Article**
- [Revisiting human IL-12R \$\beta\$ 1 deficiency: a survey of 141 patients from 30 countries.](#)
2. de Beaucoudrey L, Samarina A, Bustamante J, Cobat A, Boisson-Dupuis S, Feinberg J, Al-Muhsen S, Janni re L, Rose Y, de Suremain M, Kong XF, Filipe-Santos O, Chapgier A, Picard C, Fischer A, Dogu F, Ikinciogullari A, Tanir G, Al-Hajjar S, Al-Jumaah S, Frayha HH, AlSum Z, Al-Ajaji S, Alangari A, Al-Ghonaïum A, Adimi P, Mansouri D, Ben-Mustapha I, Yancoski J, Garty BZ, Rodriguez-Gallego C, Caragol I, Kutukculer N, Kumararatne DS, Patel S, Doffinger R, Exley A, Jeppsson O, Reichenbach J, Nadal D, Boyko Y, Pietrucha B, Anderson S, Levin M, Schanden e L, Schepers K, Efira A, Mascart F, Matsuoka M, Sakai T, Siegrist CA, Freceerova K, Bl uetters-Sawatzki R, Bernh of J, Freiherst J, Baumann U, Richter D, Haerynck F, De Baets F, Novelli V, Lammas D, Vermynen C, Tuerlinckx D, Nieuwhof C, Pac M, Haas WH, M uller-Fleckenstein I, Fleckenstein B, Levy J, Raj R, Cohen AC, Lewis DB, Holland SM, Yang KD, Wang X, Wang X, Jiang L, Yang X, Zhu C, Xie Y, Lee PP, Chan KW, Chen TX, Castro G, Natera I, Codoceo A, King A, Bezrodnik L, Di Giovanni D, Gaillard MI, de Moraes-Vasconcelos D, Grumach AS, da Silva Duarte AJ, Aldana R, Espinosa-Rosales FJ, Bejaoui M, Bousfiha AA, Baghdadi JE, Ozbek N, Aksu G, Keser M, Somer A, Hatipoglu N, Aydogmus C, Asilsoy S, Camcioglu Y, G ulle S, Ozgur TT, Ozen M, Oleastro M, Bernasconi A, Mamishi S, Parvaneh N, Rosenzweig S, Barbouche R, Pedraza S, Lau YL, Ehlayel MS, Fieschi C, Abel L, Sanal O, Casanova JL.  
Medicine (Baltimore). 2010 Nov;89(6):381-402.  
PMID: 21057261 [PubMed - indexed for MEDLINE]
- [Clinical disease caused by Klebsiella in 2 unrelated patients with interleukin 12 receptor beta1 deficiency.](#)
3. Pedraza S, Lezana JL, Samarina A, Aldana R, Herrera MT, Boisson-Dupuis S, Bustamante J, Pages P, Casanova JL, Picard C.  
Pediatrics. 2010 Oct;126(4):e971-6. Epub 2010 Sep 20.  
PMID: 20855390 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Interleukin 12 receptor beta1 chain deficiency in a child with disseminated tuberculosis: a case report.](#)
4. Shah P, El-Maaytah M, Jerjes W, Upile T, Ayliffe P.  
J Oral Maxillofac Surg. 2010 Apr;68(4):909-11. No abstract available.  
PMID: 20307773 [PubMed - indexed for MEDLINE]
- [Mycobacterium bovis BCG-itis and cervical lymphadenitis due to Salmonella enteritidis in a patient with complete interleukin-12/23 receptor beta1 deficiency.](#)
5. van de Vosse E, Ottenhoff TH, de Paus RA, Verhard EM, de Boer T, van Dissel JT, Kuijpers TW.  
Infection. 2010 Apr;38(2):128-30. Epub 2010 Mar 5.  
PMID: 20213287 [PubMed - indexed for MEDLINE]
- [Abnormalities in intracellular processing and expression of interferon-gamma receptor in adherent cells from lepromatous leprosy patients.](#)
6. Guerrero-Vel azquez C, Lopez-Roa RI, Delgado-Rizo V, Guillen-Vargas CM, Montoya-Buelna M, Fafutis-Morris M.  
J Interferon Cytokine Res. 2010 Feb;30(2):99-105.  
PMID: 20039824 [PubMed - indexed for MEDLINE]
- [Atypical presentation of IL-12 receptor beta1 deficiency with pneumococcal sepsis and disseminated nontuberculous mycobacterial infection in a 19-month-old girl born to nonconsanguineous US residents.](#)
7. Gruenberg DA, A nover-Sombke S, Gem JE, Holland SM, Rosenzweig SD, Torgerson TR, Seroogy CM.  
J Allergy Clin Immunol. 2010 Jan;125(1):264-5. Epub 2009 Nov 11. No abstract available.  
PMID: 19910038 [PubMed - indexed for MEDLINE]
- [A novel mutation of the IL12RB1 gene in a child with nocardiosis, recurrent salmonellosis and neurofibromatosis type I: first case report from Thailand.](#)
8. Luangwedchakarn V, Jirapongsaranurak O, NiemeLa JE, Thepthai C, Choikephaibulkit K, Sukpanichnant S, Pacharn P, Visitsunthorn N, Vichyanond P, Piboopocanun S, Fleisher TA.  
Asian Pac J Allergy Immunol. 2009 Jun-Sep;27(2-3):161-5.  
PMID: 19839503 [PubMed - indexed for MEDLINE]
- [Refractory disseminated coccidioidomycosis and mycobacteriosis in interferon-gamma receptor 1 deficiency.](#)
9. Vinh DC, Masannat F, Dzioba RB, Galgiani JN, Holland SM.  
Clin Infect Dis. 2009 Sep 15;49(6):e62-5.  
PMID: 19681704 [PubMed - indexed for MEDLINE] **Free PMC Article**



10. [A 475 years-old founder effect involving IL12RB1: a highly prevalent mutation conferring Mendelian Susceptibility to Mycobacterial Diseases in European descendants.](#)  
Yancoski J, Rocco C, Bernasconi A, Oleastro M, Bezrodnik L, Vrátnica C, Haerynck F, Rosenzweig SD.  
Infect Genet Evol. 2009 Jul;9(4):574-80. Epub 2009 Mar 9.  
PMID: 19460324 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
11. [Could natural killer cells compensate for impaired CD4+ T-cell responses to CMV in HIV patients responding to antiretroviral therapy?](#)  
Tan DB, Fernandez S, French M, Price P.  
Clin Immunol. 2009 Jul;132(1):63-70. Epub 2009 Apr 28.  
PMID: 19403337 [PubMed - indexed for MEDLINE]
12. [Interleukin-12/23 receptor beta 1 deficiency in an infant with draining BCG lymphadenitis.](#)  
Asilsoy S, Bilgili G, Turul T, Dizdärer C, Kalkan S, Yasli H, Can D, Genel F, Sanal O.  
Pediatr Int. 2009 Apr;51(2):310-2. No abstract available.  
PMID: 19379268 [PubMed - indexed for MEDLINE]
13. [Impaired development of human Th1 cells in patients with deficient expression of STAT4.](#)  
Chang HC, Han L, Goswami R, Nguyen ET, Pelloso D, Robertson MJ, Kaplan MH.  
Blood. 2009 Jun 4;113(23):5887-90. Epub 2009 Apr 9.  
PMID: 19359411 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
14. [Antisense-mediated exon skipping to correct IL-12Rbeta1 deficiency in T cells.](#)  
van de Vosse E, Verhard EM, de Paus RA, Platenburg GJ, van Deutekom JC, Aartsma-Rus A, van Dissel JT.  
Blood. 2009 May 7;113(19):4548-55. Epub 2009 Mar 3. Erratum in: Blood. 2009 Nov 12;114(20):4607.  
PMID: 19258592 [PubMed - indexed for MEDLINE] [Free Article](#)
15. [\[Primary immunodeficiency complicated with Bacillus Calmette-Guerin infection: identification and clinical phenotype of a case of novel interleukin-12Rbeta1 gene mutation\].](#)  
Xie N, Jiang LP, Kong XF, Zhu CM, Liu ZY, Liu W, Zhang XX, Yang XQ.  
Zhonghua Er Ke Za Zhi. 2008 Aug;46(8):601-4. Chinese.  
PMID: 19099833 [PubMed - indexed for MEDLINE]
16. [Differential effects of tumour necrosis factor-alpha and interleukin-12 on isopentenyl pyrophosphate-stimulated interferon-gamma production by cord blood Vgamma9 T cells.](#)  
Campos Alberto EJ, Shimojo N, Aoyagi M, Kohno Y.  
Immunology. 2009 Jun;127(2):171-7. Epub 2008 Nov 14.  
PMID: 19019091 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
17. [Simultaneous presentation of 2 rare hereditary immunodeficiencies: IL-12 receptor beta1 deficiency and ataxia-telangiectasia.](#)  
Ehlayel M, de Beaucoudrey L, Fike F, Nahas SA, Feinberg J, Casanova JL, Gatti RA.  
J Allergy Clin Immunol. 2008 Dec;122(6):1217-9. Epub 2008 Aug 20. No abstract available.  
PMID: 18718650 [PubMed - indexed for MEDLINE]
18. [Influenza virus vaccination induces interleukin-12/23 receptor beta 1 \(IL-12/23R beta 1\)-independent production of gamma interferon \(IFN-gamma\) and humoral immunity in patients with genetic deficiencies in IL-12/23R beta 1 or IFN-gamma receptor 1.](#)  
de Boer T, van Dissel JT, Kuijpers TW, Rimmelzwaan GF, Kroon FP, Ottenhoff TH.  
Clin Vaccine Immunol. 2008 Aug;15(8):1171-5. Epub 2008 Jun 18.  
PMID: 18562567 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
19. [Cryptococcosis and deficiency of interleukin12r.](#)  
Rezai MS, Khotael G, Kheirkhah M, Hedayat T, Geramishoar M, Mahjoub F.  
Pediatr Infect Dis J. 2008 Jul;27(7):673. No abstract available.  
PMID: 18520441 [PubMed - indexed for MEDLINE]
20. [A role for interleukin-12/23 in the maturation of human natural killer and CD56+ T cells in vivo.](#)  
Guia S, Cognet C, de Beaucoudrey L, Tessmer MS, Jouanguy E, Berger C, Filipe-Santos O, Feinberg J, Camcioglu Y, Levy J, Al Jumaah S, Al-Hajjar S, Stephan JL, Fieschi C, Abel L, Brossay L, Casanova JL, Vivier E.  
Blood. 2008 May 15;111(10):5008-16. Epub 2008 Mar 4.  
PMID: 18319400 [PubMed - indexed for MEDLINE] [Free Article](#)
21. [Colocalization of the IL-12 receptor and FcgammaRIIIa to natural killer cell lipid rafts leads to activation of ERK and enhanced production of interferon-gamma.](#)  
Kondadasula SV, Roda JM, Parihar R, Yu J, Lehman A, Caligiuri MA, Tridandapani S, Burry RW, Carson WE 3rd.  
Blood. 2008 Apr 15;111(8):4173-83. Epub 2008 Jan 3.  
PMID: 18174382 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

- 22. [Interferon gamma, IL-12, IL-12R and STAT-1 immunodeficiency diseases: disorders of the interface of innate and adaptive immunity.](#)  
Holland SM.  
Immunol Res. 2007;38(1-3):342-6.  
PMID: 17917041 [PubMed - indexed for MEDLINE]
- 23. [Mycobacterial disease in a child with surface-expressed non-functional interleukin-12Rbeta1 chains.](#)  
Scheuerman O, de Beaucoudrey L, Hoffer V, Feinberg J, Casanova JL, Garty BZ.  
Isr Med Assoc J. 2007 Jul;9(7):560-1. No abstract available.  
PMID: 17710793 [PubMed - indexed for MEDLINE] **Free Article**
- 24. [A case of interleukin-12 receptor beta-1 deficiency with recurrent leishmaniasis.](#)  
Sanal O, Turkmani G, Gumruk F, Yel L, Secmeer G, Tezcan I, Kara A, Ersoy F.  
Pediatr Infect Dis J. 2007 Apr;26(4):366-8.  
PMID: 17414409 [PubMed - indexed for MEDLINE]
- 25. [Severe mycobacterial infections in two pairs of Chinese siblings with interleukin-12 receptor beta1 deficiency.](#)  
Lee PP, Jiang LP, Wang XC, Chan KW, Tu WW, Lau YL.  
Eur J Pediatr. 2008 Feb;167(2):231-2. Epub 2007 Mar 27. No abstract available.  
PMID: 17387515 [PubMed - indexed for MEDLINE]
- 26. [Interleukin-18 directly activates T-bet expression and function via p38 mitogen-activated protein kinase and nuclear factor-kappaB in acute myeloid leukemia-derived dendritic KG-1 cells.](#)  
Bachmann M, Dragoi C, Poleganov MA, Pfeilschifter J, Mühl H.  
Mol Cancer Ther. 2007 Feb;6(2):723-31.  
PMID: 17308068 [PubMed - indexed for MEDLINE] **Free Article**
- 27. [Growth hormone secretion and immunological function of a male patient with a homozygous STAT5b mutation.](#)  
Walenkamp MJ, Vidarsdottir S, Pereira AM, Karperien M, van Doorn J, van Duyvenvoorde HA, Breuning MH, Roelfsema F, Kruithof MF, van Disse J, Janssen R, Wit JM, Romijn JA.  
Eur J Endocrinol. 2007 Feb;156(2):155-65.  
PMID: 17287404 [PubMed - indexed for MEDLINE] **Free Article**
- 28. [Impaired interferon-gamma production in response to live bacteria and Toll-like receptor agonists in patients with ataxia telangiectasia.](#)  
Reichenbach J, Schubert R, Feinberg J, Beck O, Rosewich M, Rose MA, Zielen S.  
Clin Exp Immunol. 2006 Dec;146(3):381-9.  
PMID: 17100756 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 29. [Pneumocystis cell wall beta-glucans induce dendritic cell costimulatory molecule expression and inflammatory activation through a Fas-Fas ligand mechanism.](#)  
Carmona EM, Vassallo R, Vuk-Pavlovic Z, Standing JE, Kottom TJ, Limper AH.  
J Immunol. 2006 Jul 1;177(1):459-67.  
PMID: 16785543 [PubMed - indexed for MEDLINE] **Free Article**
- 30. [Cutaneous leukocytoclastic vasculitis in a child with interleukin-12 receptor beta-1 deficiency.](#)  
Kutukculer N, Genel F, Aksu G, Karapinar B, Ozturk C, Cavusoglu C, Casanova JL, Fieschi C.  
J Pediatr. 2006 Mar;148(3):407-9.  
PMID: 16615980 [PubMed - indexed for MEDLINE]
- 31. [Recurrent Salmonella bacteremia in interleukin-12 receptor beta1 deficiency.](#)  
Ozen M, Ceyhan M, Sanal O, Bayraktar M, Mesci L.  
J Trop Pediatr. 2006 Aug;52(4):296-8. Epub 2006 Mar 10.  
PMID: 16531420 [PubMed - indexed for MEDLINE]
- 32. [Complete deficiency of the IL-12 receptor beta1 chain: three unrelated Turkish children with unusual clinical features.](#)  
Tanir G, Dogu F, Tuygun N, Ikinciogullari A, Aytakin C, Aydemir C, Yuksek M, Boduroglu EC, de Beaucoudrey L, Fieschi C, Feinberg J, Casanova JL, Babacan E.  
Eur J Pediatr. 2006 Jun;165(6):415-7. Epub 2006 Feb 24. No abstract available.  
PMID: 16501992 [PubMed - indexed for MEDLINE]
- 33. [Presentation of interleukin-12/-23 receptor beta1 deficiency with various clinical symptoms of Salmonella infections.](#)  
Sanal O, Turul T, De Boer T, Van de Vosse E, Yalcin I, Tezcan I, Sun C, Memis L, Ottenhoff TH, Ersoy F.  
J Clin Immunol. 2006 Jan;26(1):1-6.  
PMID: 16418797 [PubMed - indexed for MEDLINE]
- 34. [Gamma interferon is dispensable for neopterin production in vivo.](#)  
Sghiri R, Feinberg J, Thabet F, Dellagi K, Boukadida J, Ben Abdelaziz A, Casanova JL, Barbouche MR.  
Clin Diagn Lab Immunol. 2005 Dec;12(12):1437-41.  
PMID: 16339068 [PubMed - indexed for MEDLINE] **Free PMC Article**

35. [Molecular complementation of IL-12Rbeta1 deficiency reveals functional differences between IL-12Rbeta1 alleles including partial IL-12Rbeta1 deficiency.](#)  
van de Vosse E, de Paus RA, van Dissel JT, Ottenhoff TH.  
Hum Mol Genet. 2005 Dec 15;14(24):3847-55. Epub 2005 Nov 17.  
PMID: 16293671 [PubMed - indexed for MEDLINE] **Free Article**
36. [IL-12-independent Th1 polarization in human mononuclear cells infected with varicella-zoster virus.](#)  
Yu HR, Chen RF, Hong KC, Bong CN, Lee WI, Kuo HC, Yang KD.  
Eur J Immunol. 2005 Dec;35(12):3664-72.  
PMID: 16285008 [PubMed - indexed for MEDLINE]
37. [Differential effect of IL-15 and IL-2 on survival of phytohemagglutinin-activated umbilical cord blood T cells.](#)  
Lin SJ, Cheng PJ, Hsiao SS, Lin HH, Hung PF, Kuo ML.  
Am J Hematol. 2005 Oct;80(2):106-12.  
PMID: 16184573 [PubMed - indexed for MEDLINE]
38. [Thirteen years of culture-positive M. bovis-BCG infection in an IL-12Rbeta1 deficient patient: treatment and outcome.](#)  
Rosenzweig SD, Yancoski J, Bernasconi A, Krasovec S, Marciano BE, Casimir L, Berberian G, Símboli N, Rousseau M, Calle G.  
J Infect. 2006 Mar;52(3):e69-72. Epub 2005 Sep 19.  
PMID: 16181679 [PubMed - indexed for MEDLINE]
39. [Inherited disorders of the IL-12-IFN-gamma axis in patients with disseminated BCG infection.](#)  
Mansouri D, Adimi P, Mirsaedi M, Mansouri N, Khalilzadeh S, Masjedi MR, Adimi P, Tabarsi P, Naderi M, Filipe-Santos O, Vogt G, de Beaucoudrey L, Bustamante J, Chappier A, Feinberg J, Velayati AA, Casanova JL.  
Eur J Pediatr. 2005 Dec;164(12):753-7. Epub 2005 Aug 10.  
PMID: 16091917 [PubMed - indexed for MEDLINE]
40. [Functional aberrant expression of CCR2 receptor on chronically activated NK cells in patients with TAP-2 deficiency.](#)  
Hanna J, Mussaffi H, Steuer G, Hanna S, Deeb M, Blau H, Amon TI, Weizman N, Mandelboim O.  
Blood. 2005 Nov 15;106(10):3465-73. Epub 2005 Jul 21.  
PMID: 16037391 [PubMed - indexed for MEDLINE] **Free Article**
41. [Disseminated histoplasmosis in persons with interferon-gamma receptor 1 deficiency.](#)  
Zerbe CS, Holland SM.  
Clin Infect Dis. 2005 Aug 15;41(4):e38-41. Epub 2005 Jul 15.  
PMID: 16028145 [PubMed - indexed for MEDLINE] **Free Article**
42. [Paracoccidioides brasiliensis disseminated disease in a patient with inherited deficiency in the beta1 subunit of the interleukin \(IL\)-12/IL-23 receptor.](#)  
Moraes-Vasconcelos D, Grumach AS, Yamaguti A, Andrade ME, Fieschi C, de Beaucoudrey L, Casanova JL, Duarte AJ.  
Clin Infect Dis. 2005 Aug 15;41(4):e31-7. Epub 2005 Jul 15.  
PMID: 16028144 [PubMed - indexed for MEDLINE] **Free Article**
43. [Gains of glycosylation comprise an unexpectedly large group of pathogenic mutations.](#)  
Vogt G, Chappier A, Yang K, Chuzhanova N, Feinberg J, Fieschi C, Boisson-Dupuis S, Alcais A, Filipe-Santos O, Bustamante J, de Beaucoudrey L, Al-Mohsen I, Al-Hajjar S, Al-Ghoniaim A, Adimi P, Mirsaedi M, Khalilzadeh S, Rosenzweig S, de la Calle Martin O, Bauer TR, Puck JM, Ochs HD, Furthner D, Engelhorn C, Belohradsky B, Mansouri D, Holland SM, Schreiber RD, Abel L, Cooper DN, Soudais C, Casanova JL.  
Nat Genet. 2005 Jul;37(7):692-700. Epub 2005 May 29.  
PMID: 15924140 [PubMed - indexed for MEDLINE]
44. [Interleukin-12 receptor beta 1 chain deficiency in a child with disseminated tuberculosis.](#)  
Ozbek N, Fieschi C, Yilmaz BT, de Beaucoudrey L, Demirhan B, Feinberg J, Bikmaz YE, Casanova JL.  
Clin Infect Dis. 2005 Mar 15;40(6):e55-8. Epub 2005 Feb 17.  
PMID: 15736007 [PubMed - indexed for MEDLINE] **Free Article**
45. [Variable outcome of experimental interferon-gamma therapy of disseminated Bacillus Calmette-Guerin infection in two unrelated interleukin-12Rbeta1-deficient Slovakian children.](#)  
Ulrichs T, Fieschi C, Neviccka E, Hahn H, Brezina M, Kaufmann SH, Casanova JL, Freceirova K.  
Eur J Pediatr. 2005 Mar;164(3):166-72. Epub 2005 Jan 5.  
PMID: 15633050 [PubMed - indexed for MEDLINE]
46. [Mature myeloid dendritic cell subsets have distinct roles for activation and viability of circulating human natural killer cells.](#)  
Münz C, Dao T, Ferlazzo G, de Cos MA, Goodman K, Young JW.  
Blood. 2005 Jan 1;105(1):266-73. Epub 2004 Aug 26.  
PMID: 15331446 [PubMed - indexed for MEDLINE] **Free Article**

47. [Inhibition of human immunodeficiency virus type 1 replication by Z-100, an immunomodulator extracted from human-type tubercle bacilli, in macrophages.](#)  
Emori Y, Ikeda T, Ohashi T, Masuda T, Kurimoto T, Takei M, Kannagi M.  
J Gen Virol. 2004 Sep;85(Pt 9):2603-13.  
PMID: 15302954 [PubMed - indexed for MEDLINE] **Free Article**
48. [GPI-defective monocytes from paroxysmal nocturnal hemoglobinuria patients show impaired in vitro dendritic cell differentiation.](#)  
Ruggiero G, Terrazzano G, Becchimanzi C, Sica M, Andretta C, Masci AM, Racioppi L, Rotoli B, Zappacosta S, Alfinito F.  
J Leukoc Biol. 2004 Sep;76(3):634-40. Epub 2004 Jun 14.  
PMID: 15197238 [PubMed - indexed for MEDLINE] **Free Article**
49. [Retroviral-mediated gene transfer restores IL-12 and IL-23 signaling pathways in T cells from IL-12 receptor beta1-deficient patients.](#)  
Bosticardo M, Witte I, Fieschi C, Novelli F, Casanova JL, Candotti F.  
Mol Ther. 2004 Jun;9(6):895-901.  
PMID: 15194056 [PubMed - indexed for MEDLINE]
50. [A novel form of complete IL-12/IL-23 receptor beta1 deficiency with cell surface-expressed nonfunctional receptors.](#)  
Fieschi C, Bosticardo M, de Beaucoudrey L, Boisson-Dupuis S, Feinberg J, Santos OF, Bustamante J, Levy J, Candotti F, Casanova JL.  
Blood. 2004 Oct 1;104(7):2095-101. Epub 2004 Jun 3.  
PMID: 15178580 [PubMed - indexed for MEDLINE] **Free Article**
51. [CD40 activation of BCP-ALL cells generates IL-10-producing, IL-12-defective APCs that induce allogeneic T-cell anergy.](#)  
D'Amico G, Vulcano M, Bugarin C, Bianchi G, Pirovano G, Bonamino M, Marin V, Allavena P, Biagi E, Biondi A.  
Blood. 2004 Aug 1;104(3):744-51. Epub 2004 Mar 4.  
PMID: 15001471 [PubMed - indexed for MEDLINE] **Free Article**
52. [Genetic approaches to assessing evidence for a T helper type 1 cytokine defect in adult asthma.](#)  
Birkisson IF, Halapi E, Bjornsdottir US, Shkolny DL, Adalsteinsdottir E, Amason T, Gislason D, Gislason T, Gulcher J, Stefansson K, Hakonarson H.  
Am J Respir Crit Care Med. 2004 May 1;169(9):1007-13. Epub 2004 Feb 12.  
PMID: 14962816 [PubMed - indexed for MEDLINE] **Free Article**
53. [IL-12 receptor deficiency revisited: IL-23-mediated signaling is also impaired in human genetic IL-12 receptor beta1 deficiency.](#)  
Hoeve MA, de Boer T, Langenberg DM, Sanal O, Verreck FA, Ottenhoff TH.  
Eur J Immunol. 2003 Dec;33(12):3393-7.  
PMID: 14635048 [PubMed - indexed for MEDLINE]
54. [\[Salmonella septicemia associated with interleukin 12 receptor beta1 \(IL-12Rbeta1\) deficiency\].](#)  
Carvalho BT, Iazzetti AV, Ferrarini MA, Campos SO, Iazzetti MA, Carlesse FA.  
J Pediatr (Rio J). 2003 May-Jun;79(3):273-6. Portuguese.  
PMID: 14506539 [PubMed - indexed for MEDLINE] **Free Article**
55. [Clinical tuberculosis in 2 of 3 siblings with interleukin-12 receptor beta1 deficiency.](#)  
Caragol I, Raspall M, Fieschi C, Feinberg J, Larrosa MN, Hernández M, Figueras C, Bertrán JM, Casanova JL, Español T.  
Clin Infect Dis. 2003 Jul 15;37(2):302-6. Epub 2003 Jul 7.  
PMID: 12856223 [PubMed - indexed for MEDLINE] **Free Article**
56. [Interleukin-12 receptor beta1 deficiency presenting as recurrent Salmonella infection.](#)  
Staretz-Haham O, Melamed R, Lifshitz M, Porat N, Fieschi C, Casanova JL, Levy J.  
Clin Infect Dis. 2003 Jul 1;37(1):137-40. Epub 2003 Jun 24.  
PMID: 12830418 [PubMed - indexed for MEDLINE] **Free Article**
57. [Severe Mycobacterium bovis BCG infections in a large series of novel IL-12 receptor beta1 deficient patients and evidence for the existence of partial IL-12 receptor beta1 deficiency.](#)  
Lichtenauer-Kaligis EG, de Boer T, Verreck FA, van Voorden S, Hoeve MA, van de Vosse E, Ersoy F, Tezcan I, van Dissel JT, Sanal O, Ottenhoff TH.  
Eur J Immunol. 2003 Jan;33(1):59-69.  
PMID: 12594833 [PubMed - indexed for MEDLINE]
58. [Low penetrance, broad resistance, and favorable outcome of interleukin 12 receptor beta1 deficiency: medical and immunological implications.](#)  
Fieschi C, Dupuis S, Catherinot E, Feinberg J, Bustamante J, Breiman A, Altare F, Baretto R, Le Deist F, Kayal S, Koch H, Richter D, Brezina M, Aksu G, Wood P, Al-Jumaah S, Raspall M, Da Silva Duarte AJ, Tuerlinckx D, Virelizier JL, Fischer A, Enright A, Bernhöft J, Cleary AM, Vermeylen C, Rodriguez-Gallego C, Davies G, Blüters-Sawatzki R, Siegrist CA, Ehlayel MS, Novelli V, Haas WH, Levy J, Freihorst J, Al-Hajjar S, Nadal D, De Moraes Vasconcelos D, Jeppsson O, Kutukculer N, Freceerova K, Caragol I, Lammas D, Kumararatne DS, Abel L, Casanova JL.  
J Exp Med. 2003 Feb 17;197(4):527-35.  
PMID: 12591909 [PubMed - indexed for MEDLINE] **Free PMC Article**

- [Impaired accumulation and function of memory CD4 T cells in human IL-12 receptor beta 1 deficiency.](#)
59. Cleary AM, Tu W, Enright A, Giffon T, Dewaal-Malefyt R, Gutierrez K, Lewis DB.  
J Immunol. 2003 Jan 1;170(1):597-603.  
PMID: 12496448 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Sézary syndrome patients demonstrate a defect in dendritic cell populations: effects of CD40 ligand and treatment with GM-CSF on dendritic cell numbers and the production of cytokines.](#)
60. Wysocka M, Zaki MH, French LE, Chehimi J, Shapiro M, Everetts SE, McGinnis KS, Montaner L, Rook AH.  
Blood. 2002 Nov 1;100(9):3287-94.  
PMID: 12384429 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Clinical and genetic heterogeneity of inherited autosomal recessive susceptibility to disseminated Mycobacterium bovis bacille calmette-guérin infection.](#)
61. Elloumi-Zghal H, Barbouche MR, Chemli J, Béjaoui M, Harbi A, Snoussi N, Abdelhak S, Dellagi K.  
J Infect Dis. 2002 May 15;185(10):1468-75. Epub 2002 Apr 30.  
PMID: 11992283 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Genetic basis of patients with bacille Calmette-Guérin osteomyelitis in Japan: identification of dominant partial interferon-gamma receptor 1 deficiency as a predominant type.](#)
62. Sasaki Y, Nomura A, Kusahara K, Takada H, Ahmed S, Obinata K, Hamada K, Okimoto Y, Hara T.  
J Infect Dis. 2002 Mar 1;185(5):706-9. Epub 2002 Feb 14.  
PMID: 11865431 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Requirement for both IL-12 and IFN-gamma signaling pathways in optimal IFN-gamma production by human T cells.](#)
63. Losana G, Rigamonti L, Borghi I, Assenzio B, Ariotti S, Jouanguy E, Altare F, Forni G, Casanova JL, Novelli F.  
Eur J Immunol. 2002 Mar;32(3):693-700.  
PMID: 11857344 [PubMed - indexed for MEDLINE]
- [Reduced blood CD123+ \(lymphoid\) and CD11c+ \(myeloid\) dendritic cell numbers in primary HIV-1 infection.](#)
64. Pacanowski J, Kahi S, Baillet M, Lebon P, Deveau C, Goujard C, Meyer L, Oksenhendler E, Sinet M, Hosmalin A.  
Blood. 2001 Nov 15;98(10):3016-21.  
PMID: 11698285 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Interleukin-12 receptor beta1 deficiency in a patient with abdominal tuberculosis.](#)
65. Altare F, Ensser A, Breiman A, Reichenbach J, Baghdadi JE, Fischer A, Emile JF, Gaillard JL, Meinel E, Casanova JL.  
J Infect Dis. 2001 Jul 15;184(2):231-6. Epub 2001 Jun 14.  
PMID: 11424023 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Mycobacterium fortuitum-chelonae complex infection in a child with complete interleukin-12 receptor beta 1 deficiency.](#)
66. Aksu G, Tirpan C, Cavuşoğlu C, Soydan S, Altare F, Casanova JL, Kutukculer N.  
Pediatr Infect Dis J. 2001 May;20(5):551-3.  
PMID: 11368122 [PubMed - indexed for MEDLINE]
- [Missense mutation of the interleukin-12 receptor beta1 chain-encoding gene is associated with impaired immunity against Mycobacterium avium complex infection.](#)
67. Sakai T, Matsuoka M, Aoki M, Nosaka K, Mitsuya H.  
Blood. 2001 May 1;97(9):2688-94.  
PMID: 11313259 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Postgrafting administration of granulocyte colony-stimulating factor impairs functional immune recovery in recipients of human leukocyte antigen haplotype-mismatched hematopoietic transplants.](#)
68. Volpi I, Perruccio K, Tosti A, Capanni M, Ruggeri L, Posati S, Aversa F, Tabilio A, Romani L, Martelli MF, Velardi A.  
Blood. 2001 Apr 15;97(8):2514-21.  
PMID: 11290617 [PubMed - indexed for MEDLINE] [Free Article](#)
- [A point mutation in a domain of gamma interferon receptor 1 provokes severe immunodeficiency.](#)
69. Allende LM, López-Goyanes A, Paz-Artal E, Corell A, García-Pérez MA, Varela P, Scarpellini A, Negreira S, Palenque E, Arnaiz-Villena A.  
Clin Diagn Lab Immunol. 2001 Jan;8(1):133-7.  
PMID: 11139207 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [Functional reconstitution and regulation of IL-18 activity by the IL-18R beta chain.](#)
70. Kim SH, Reznikov LL, Stuyt RJ, Selzman CH, Fantuzzi G, Hoshino T, Young HA, Dinarello CA.  
J Immunol. 2001 Jan 1;166(1):148-54.  
PMID: 11123287 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Impairment of STAT activation by IL-12 in a patient with atypical mycobacterial and staphylococcal infections.](#)
71. Gollob JA, Veenstra KG, Jyonouchi H, Kelly AM, Ferrieri P, Panka DJ, Altare F, Fieschi C, Casanova JL, Frank DA, Mier JW.  
J Immunol. 2000 Oct 1;165(7):4120-6.  
PMID: 11034424 [PubMed - indexed for MEDLINE] [Free Article](#)

72. [Residual type 1 immunity in patients genetically deficient for interleukin 12 receptor beta1 \(IL-12Rbeta1\): evidence for an IL-12Rbeta1-independent pathway of IL-12 responsiveness in human T cells.](#)  
Verhagen CE, de Boer T, Smits HH, Verreck FA, Wierenga EA, Kurimoto M, Lammas DA, Kumararatne DS, Sanal O, Kroon FP, van Dissel JT, Sinigaglia F, Ottenhoff TH.  
J Exp Med. 2000 Aug 21;192(4):517-28.  
PMID: 10952721 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
73. [Depressed IL-12-mediated signal transduction in T cells from patients with Sézary syndrome is associated with the absence of IL-12 receptor beta 2 mRNA and highly reduced levels of STAT4.](#)  
Showe LC, Fox FE, Williams D, Au K, Niu Z, Rook AH.  
J Immunol. 1999 Oct 1;163(7):4073-9.  
PMID: 10491012 [PubMed - indexed for MEDLINE] [Free Article](#)
74. [The interleukin-12-mediated pathway of immune events is dysfunctional in human immunodeficiency virus-infected individuals.](#)  
Marshall JD, Chehimi J, Gri G, Kostman JR, Montaner LJ, Trinchieri G.  
Blood. 1999 Aug 1;94(3):1003-11.  
PMID: 10419892 [PubMed - indexed for MEDLINE] [Free Article](#)
75. [Persistent alterations in T-cell repertoire, cytokine and chemokine receptor gene expression after 1 year of highly active antiretroviral therapy.](#)  
Martinon F, Michelet C, Peguillet I, Taoufik Y, Lefebvre P, Goujard C, Guillet JG, Delfraissy JF, Lantz O.  
AIDS. 1999 Feb 4;13(2):185-94.  
PMID: 10202824 [PubMed - indexed for MEDLINE]
76. [Inherited interleukin 12 deficiency in a child with bacille Calmette-Guérin and Salmonella enteritidis disseminated infection.](#)  
Altare F, Lammas D, Revy P, Jouanguy E, Dörfinger R, Lamhamedi S, Drysdale P, Scheel-Toellner D, Girdlestone J, Darbyshire P, Wadhwa M, Dockrell H, Salmon M, Fischer A, Durandy A, Casanova JL, Kumararatne DS.  
J Clin Invest. 1998 Dec 15;102(12):2035-40.  
PMID: 9854038 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
77. [Abnormal regulation of interferon-gamma, interleukin-12, and tumor necrosis factor-alpha in human interferon-gamma receptor 1 deficiency.](#)  
Holland SM, Dorman SE, Kwon A, Pitha-Rowe IF, Frucht DM, Gerstberger SM, Noel GJ, Vesterhus P, Brown MR, Fleisher TA.  
J Infect Dis. 1998 Oct;178(4):1095-104.  
PMID: 9806040 [PubMed - indexed for MEDLINE] [Free Article](#)
78. [Severe mycobacterial and Salmonella infections in interleukin-12 receptor-deficient patients.](#)  
de Jong R, Altare F, Haagen IA, Elferink DG, Boer T, van Breda Vriesman PJ, Kabel PJ, Draaisma JM, van Dissel JT, Kroon FP, Casanova JL, Ottenhoff TH.  
Science. 1998 May 29;280(5368):1435-8.  
PMID: 9603733 [PubMed - indexed for MEDLINE] [Free Article](#)
79. [Lack of IL-12 signaling in human allergen-specific Th2 cells.](#)  
Hilkens CM, Messer G, Tesselaar K, van Rietschoten AG, Kapsenberg ML, Wierenga EA.  
J Immunol. 1996 Nov 15;157(10):4316-21.  
PMID: 8906805 [PubMed - indexed for MEDLINE]
80. [Cord blood natural killer cells are functionally and phenotypically immature but readily respond to interleukin-2 and interleukin-12.](#)  
Gaddy J, Risdon G, Broxmeyer HE.  
J Interferon Cytokine Res. 1995 Jun;15(6):527-36.  
PMID: 7553222 [PubMed - indexed for MEDLINE]
81. [IL-12 inhibits apoptosis induced in a human Th1 clone by gp120/CD4 cross-linking and CD3/TCR activation or by IL-2 deprivation.](#)  
Radrizzani M, Accornero P, Amidei A, Aiello A, Delia D, Kurrle R, Colombo MP.  
Cell Immunol. 1995 Mar;161(1):14-21.  
PMID: 7867080 [PubMed - indexed for MEDLINE]



# PubMed

Search: IL-12p40 deficiency and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (6)

Display Settings: Summary, 20 per page, Sorted by Recently Added

[Manage Filters](#)**Are you looking for gene information?**

Source: Gene Database

[See 114 articles](#) about **IL12b (IL12P40)** gene function**IL12b (IL12P40)** interleukin 12b [Mus musculus]il12p40 in [Mus musculus](#) | [Bos taurus](#) | [Gallus gallus](#) | [All 3 Gene records](#)**Results: 6**

- [Clinical disease caused by Klebsiella in 2 unrelated patients with interleukin 12 receptor beta1 deficiency.](#)
- 1. Pedraza S, Lezana JL, Samarina A, Aldana R, Herrera MT, Boisson-Dupuis S, Bustamante J, Pages P, Casanova JL, Picard C. *Pediatrics*. 2010 Oct;126(4):e971-6. Epub 2010 Sep 20.  
PMID: 20855390 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Growth hormone secretion and immunological function of a male patient with a homozygous STAT5b mutation.](#)
- 2. Walenkamp MJ, Vidarsdottir S, Pereira AM, Karperien M, van Doorn J, van Duyvenvoorde HA, Breuning MH, Roelfsema F, Kruithof MF, van Dissel J, Janssen R, Wit JM, Romijn JA. *Eur J Endocrinol*. 2007 Feb;156(2):155-65.  
PMID: 17287404 [PubMed - indexed for MEDLINE] **Free Article**
- [Inherited disorders of the IL-12-IFN-gamma axis in patients with disseminated BCG infection.](#)
- 3. Mansouri D, Adimi P, Mirsaeidi M, Mansouri N, Khalilzadeh S, Masjedi MR, Adimi P, Tabarsi P, Naderi M, Filipe-Santos O, Vogt G, de Beaucoudrey L, Bustamante J, Chappier A, Feinberg J, Velayati AA, Casanova JL. *Eur J Pediatr*. 2005 Dec;164(12):753-7. Epub 2005 Aug 10.  
PMID: 16091917 [PubMed - indexed for MEDLINE]
- [Impaired accumulation and function of memory CD4 T cells in human IL-12 receptor beta 1 deficiency.](#)
- 4. Cleary AM, Tu W, Enright A, Giffon T, Dewaal-Malefyt R, Gutierrez K, Lewis DB. *J Immunol*. 2003 Jan 1;170(1):597-603.  
PMID: 12496448 [PubMed - indexed for MEDLINE] **Free Article**
- [Inherited interleukin 12 deficiency in a child with bacille Calmette-Guérin and Salmonella enteritidis disseminated infection.](#)
- 5. Altare F, Lammas D, Revy P, Jouanguy E, Döffinger R, Lamhamedi S, Drysdale P, Scheel-Toellner D, Girdlestone J, Darbyshire P, Wadhwa M, Dockrell H, Salmon M, Fischer A, Durandy A, Casanova JL, Kumararatne DS. *J Clin Invest*. 1998 Dec 15;102(12):2035-40.  
PMID: 9854038 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Interleukin 12 deficiency associated with recurrent infections.](#)
- 6. Haraguchi S, Day NK, Nelson RP Jr, Emmanuel P, Duplantier JE, Christodoulou CS, Good RA. *Proc Natl Acad Sci U S A*. 1998 Oct 27;95(22):13125-9.  
PMID: 9789052 [PubMed - indexed for MEDLINE] **Free PMC Article**

## PubMed

Search: IL-12p40 deficiency and not mice

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (29)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 29

- [IFN- \$\alpha\$  cannot substitute lack of IFN- \$\gamma\$  responsiveness in cells of an IFN- \$\gamma\$ R1 deficient patient.](#)
  1. van de Wetering D, van Wengen A, Savage ND, van de Vosse E, van Dissel JT. Clin Immunol. 2011 Mar;138(3):282-90. Epub 2011 Jan 8. PMID: 21216674 [PubMed - in process]
  
- [Circulating cytokines, chemokines and adhesion molecules in normal pregnancy and preeclampsia determined by multiplex suspension array.](#)
  2. Szarka A, Rigó J Jr, Lázár L, Beko G, Molvarec A. BMC Immunol. 2010 Dec 2;11:59. PMID: 21126355 [PubMed - in process] **Free PMC Article**
  
- [Clinical disease caused by Klebsiella in 2 unrelated patients with interleukin 12 receptor beta1 deficiency.](#)
  3. Pedraza S, Lezana JL, Samarina A, Aldana R, Herrera MT, Boisson-Dupuis S, Bustamante J, Pages P, Casanova JL, Picard C. Pediatrics. 2010 Oct;126(4):e971-6. Epub 2010 Sep 20. PMID: 20855390 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Helicobacter pylori dupA is polymorphic, and its active form induces proinflammatory cytokine secretion by mononuclear cells.](#)
  4. Hussein NR, Argent RH, Marx CK, Patel SR, Robinson K, Atherton JC. J Infect Dis. 2010 Jul 15;202(2):261-9. PMID: 20533870 [PubMed - indexed for MEDLINE] **Free Article**
  
- [A role for interleukin-12/23 in the maturation of human natural killer and CD56+ T cells in vivo.](#)
  5. Guia S, Cognet C, de Beaucoudrey L, Tessmer MS, Jouanguy E, Berger C, Filipe-Santos O, Feinberg J, Camcioglu Y, Levy J, Al Jumaah S, Al-Hajjar S, Stephan JL, Fieschi C, Abel L, Brossay L, Casanova JL, Vivier E. Blood. 2008 May 15;111(10):5008-16. Epub 2008 Mar 4. PMID: 18319400 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Increased Th1 and Th2 type cytokine production in patients with active tuberculosis.](#)
  6. Handzel ZT, Barak V, Altman Y, Bibi H, Lidgi M, Iancovici-Kidon M, Yassky D, Raz M. Isr Med Assoc J. 2007 Jun;9(6):479-83. PMID: 17642401 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Dysregulated expression of interleukin-23 and interleukin-12 subunits in systemic lupus erythematosus patients.](#)
  7. Huang X, Hua J, Shen N, Chen S. Mod Rheumatol. 2007;17(3):220-3. Epub 2007 Jun 20. PMID: 17564777 [PubMed - indexed for MEDLINE]
  
- [IFN-gamma- and TNF-independent vitamin D-inducible human suppression of mycobacteria: the role of cathelicidin LL-37.](#)
  8. Martineau AR, Wilkinson KA, Newton SM, Floto RA, Norman AW, Skolimowska K, Davidson RN, Sørensen OE, Kampmann B, Griffiths CJ, Wilkinson RJ. J Immunol. 2007 Jun 1;178(11):7190-8. Erratum in: J Immunol. 2007 Dec 15;179(12):8569-70. PMID: 17513768 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Recurrent non-typhoidal salmonella bacteremia in a patient with interleukin -12p40 deficiency.](#)
  9. Sharifi Mood B, Mohraz M, Mansouri SD, Alavi Naini R, Kouhpayeh HR, Naderi M, Santos OF, Vogt G, Chappicr A, Feinberg J, Casanova JL, Naserpoor T. Iran J Allergy Asthma Immunol. 2004 Dec;3(4):197-200. PMID: 17301414 [PubMed - in process]
  
- [Growth hormone secretion and immunological function of a male patient with a homozygous STAT5b mutation.](#)
  10. Walenkamp MJ, Vidarsdottir S, Pereira AM, Karperien M, van Doorn J, van Duyvenvoorde HA, Breuning MH, Roelfsema F, Kruithof MF, van Dissel J, Janssen R, Wit JM, Romijn JA. Eur J Endocrinol. 2007 Feb;156(2):155-65. PMID: 17287404 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Inherited disorders of the IL-12-IFN-gamma axis in patients with disseminated BCG infection.](#)
  11. Mansouri D, Adimi P, Mirsaedi M, Mansouri N, Khalilzadeh S, Masjedi MR, Adimi P, Tabarsi P, Naderi M, Filipe-Santos O, Vogt G, de Beaucoudrey L, Bustamante J, Chappicr A, Feinberg J, Velayati AA, Casanova JL. Eur J Pediatr. 2005 Dec;164(12):753-7. Epub 2005 Aug 10. PMID: 16091917 [PubMed - indexed for MEDLINE]



- 12. [\[A study of phenotype and function of dendritic cells and secretory cytokine in allergic asthmatic patients\].](#)  
Mao GY, Yang J, Chen HB, Guo W, Nie HX.  
Zhonghua Nei Ke Za Zhi. 2005 Mar;44(3):206-9. Chinese.  
PMID: 15840262 [PubMed - indexed for MEDLINE]
  
- 13. [Defects in the interferon-gamma and interleukin-12 pathways.](#)  
Rosenzweig SD, Holland SM.  
Immunol Rev. 2005 Feb;203:38-47. Review.  
PMID: 15661020 [PubMed - indexed for MEDLINE]
  
- 14. [Signaling by IL-12 and IL-23 and the immunoregulatory roles of STAT4.](#)  
Watford WT, Hissong BD, Bream JH, Kanno Y, Muul L, O'Shea JJ.  
Immunol Rev. 2004 Dec;202:139-56. Review.  
PMID: 15546391 [PubMed - indexed for MEDLINE]
  
- 15. [Inhaled IFN-gamma for persistent nontuberculous mycobacterial pulmonary disease due to functional IFN-gamma deficiency.](#)  
Hallstrand TS, Ochs HD, Zhu Q, Liles WC.  
Eur Respir J. 2004 Sep;24(3):367-70.  
PMID: 15358692 [PubMed - indexed for MEDLINE] **Free Article**
  
- 16. [The genetics of nontuberculous mycobacterial infection.](#)  
Newport M.  
Expert Rev Mol Med. 2003 Feb 28;5(6):1-13. Review.  
PMID: 14987409 [PubMed - indexed for MEDLINE]
  
- 17. [IL-12 receptor deficiency revisited: IL-23-mediated signaling is also impaired in human genetic IL-12 receptor beta1 deficiency.](#)  
Hoeve MA, de Boer T, Langenberg DM, Sanal O, Verreck FA, Ottenhoff TH.  
Eur J Immunol. 2003 Dec;33(12):3393-7.  
PMID: 14635048 [PubMed - indexed for MEDLINE]
  
- 18. [Human deficiencies in type-1 cytokine receptors reveal the essential role of type-1 cytokines in immunity to intracellular bacteria.](#)  
Ottenhoff TH, De Boer T, van Dissel JT, Verreck FA.  
Adv Exp Med Biol. 2003;531:279-94. Review.  
PMID: 12916800 [PubMed - indexed for MEDLINE]
  
- 19. [Impaired accumulation and function of memory CD4 T cells in human IL-12 receptor beta 1 deficiency.](#)  
Cleary AM, Tu W, Enright A, Giffon T, Dewaal-Malefyt R, Gutierrez K, Lewis DB.  
J Immunol. 2003 Jan 1;170(1):597-603.  
PMID: 12496448 [PubMed - indexed for MEDLINE] **Free Article**
  
- 20. [Heterogeneity in the granulomatous response to mycobacterial infection in patients with defined genetic mutations in the interleukin 12-dependent interferon-gamma production pathway.](#)  
Lammas DA, De Heer E, Edgar JD, Novelli V, Ben-Smith A, Baretto R, Drysdale P, Binch J, MacLennan C, Kumararatne DS, Panchalingam S, Ottenhoff TH, Casanova JL, Emile JF.  
Int J Exp Pathol. 2002 Feb;83(1):1-20. Review.  
PMID: 12059906 [PubMed - indexed for MEDLINE]
  
- 21. [Inherited interleukin-12 deficiency: IL12B genotype and clinical phenotype of 13 patients from six kindreds.](#)  
Picard C, Fieschi C, Altare F, Al-Jumaah S, Al-Hajjar S, Feinberg J, Dupuis S, Soudais C, Al-Mohsen IZ, Génin E, Lammas D, Kumararatne DS, Leclerc T, Rafii A, Frayha H, Murugasu B, Wah LB, Sinniah R, Loubser M, Okamoto E, Al-Ghonaïum A, Tufenkeji H, Abel L, Casanova JL.  
Am J Hum Genet. 2002 Feb;70(2):336-48. Epub 2001 Dec 17.  
PMID: 11753820 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- 22. [Mendelian susceptibility to mycobacterial infection in man.](#)  
Casanova JL.  
Swiss Med Wkly. 2001 Aug 11;131(31-32):445-54. Review.  
PMID: 11641967 [PubMed - indexed for MEDLINE] **Free Article**
  
- 23. [Human deficiencies in type 1 cytokine receptors reveal the essential role of type 1 cytokines in immunity to intracellular bacteria.](#)  
Ottenhoff TH, de Boer T, Verhagen CE, Verreck FA, van Dissel JT.  
Microbes Infect. 2000 Nov;2(13):1559-66. Review.  
PMID: 11113375 [PubMed - indexed for MEDLINE]
  
- 24. [\[Mendelian predisposition to mycobacterial infections in humans\].](#)  
Casanova JL.  
J Soc Biol. 2000;194(1):25-8. Review. French.  
PMID: 11107546 [PubMed - indexed for MEDLINE]

- [Up-regulation of IL-12 in monocytes: a fundamental defect in common variable immunodeficiency.](#)
- 25. Cambroner R, Sewell WA, North ME, Webster AD, Farrant J.  
J Immunol. 2000 Jan 1;164(1):488-94.  
PMID: 10605046 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Inherited interleukin 12 deficiency in a child with bacille Calmette-Guérin and Salmonella enteritidis disseminated infection.](#)
- 26. Altare F, Lammas D, Revy P, Jouanguy E, Döffinger R, Lamhamedi S, Drysdale P, Scheel-Toellner D, Girdlestone J, Darbyshire P, Wadhwa M, Dockrell H, Salmon M, Fischer A, Durandy A, Casanova JL, Kumararatne DS.  
J Clin Invest. 1998 Dec 15;102(12):2035-40.  
PMID: 9854038 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Interleukin 12 deficiency associated with recurrent infections.](#)
- 27. Haraguchi S, Day NK, Nelson RP Jr, Emmanuel P, Duplantier JE, Christodoulou CS, Good RA.  
Proc Natl Acad Sci U S A. 1998 Oct 27;95(22):13125-9.  
PMID: 9789052 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Mendelian susceptibility to mycobacterial infection in man.](#)
- 28. Altare F, Jouanguy E, Lamhamedi S, Döffinger R, Fischer A, Casanova JL.  
Curr Opin Immunol. 1998 Aug;10(4):413-7. Review.  
PMID: 9722917 [PubMed - indexed for MEDLINE]
  
- [High level interleukin-12 production, but diminished interferon-gamma production, by cord blood mononuclear cells.](#)
- 29. Scott ME, Kubin M, Kohl S.  
Pediatr Res. 1997 Apr;41(4 Pt 1):547-53.  
PMID: 9098858 [PubMed - indexed for MEDLINE]

# PubMed

Search: interferon gamma receptor 1 deficiency and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (27)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 27

- [Multiple cutaneous squamous cell carcinomas in a patient with interferon gamma receptor 2 \(IFN gamma R2\) deficiency.](#)
  1. Toyoda H, Ido M, Nakanishi K, Nakano T, Kamiya H, Matsumine A, Uchida A, Mizutani H, de Beaucoudrey L, Vogt G, Boisson-Dupuis S, Bustamante J, Casanova JL, Komada Y.  
J Med Genet. 2010 Sep;47(9):631-4. Epub 2010 Jun 28.  
PMID: 20587411 [PubMed - indexed for MEDLINE]
  
- [Paternal uniparental isodisomy of chromosome 6 causing a complex syndrome including complete IFN-gamma receptor 1 deficiency.](#)
  2. Prando C, Boisson-Dupuis S, Grant AV, Kong XF, Bustamante J, Feinberg J, Chappier A, Rose Y, Janni re L, Rizzardi E, Zhang Q, Shanahan CM, Viollet L, Lyonnet S, Abel L, Ruga EM, Casanova JL.  
Am J Med Genet A. 2010 Mar;152A(3):622-9. Review.  
PMID: 20186794 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [A novel form of cell type-specific partial IFN-gammaR1 deficiency caused by a germ line mutation of the IFNGR1 initiation codon.](#)
  3. Kong XF, Vogt G, Chappier A, Lamaze C, Bustamante J, Prando C, Fortin A, Puel A, Feinberg J, Zhang XX, Gonnord P, Pihkala-Saarinen UM, Arola M, Moilanen P, Abel L, Korppi M, Boisson-Dupuis S, Casanova JL.  
Hum Mol Genet. 2010 Feb 1;19(3):434-44. Epub 2009 Oct 31.  
PMID: 19880857 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Disseminated Mycobacterium scrofulaceum infection in a child with interferon-gamma receptor 1 deficiency.](#)
  4. Marazzi MG, Chappier A, Defilippi AC, Pistoia V, Mangini S, Savioli C, Dell'Acqua A, Feinberg J, Tortoli E, Casanova JL.  
Int J Infect Dis. 2010 Feb;14(2):e167-70. Epub 2009 Oct 31.  
PMID: 19880337 [PubMed - indexed for MEDLINE]
  
- [Refractory disseminated coccidioidomycosis and mycobacteriosis in interferon-gamma receptor 1 deficiency.](#)
  5. Vinh DC, Masannat F, Dzioba RB, Galgiani JN, Holland SM.  
Clin Infect Dis. 2009 Sep 15;49(6):e62-5.  
PMID: 19681704 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Infections due to various atypical mycobacteria in a Norwegian multiplex family with dominant interferon-gamma receptor deficiency.](#)
  6. Glosli H, Stray-Pedersen A, Brun AC, Holtmon LW, T njum T, Chappier A, Casanova JL, Abrahamsen TG.  
Clin Infect Dis. 2008 Feb 1;46(3):e23-7.  
PMID: 18171304 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Two patients with complete defects in interferon gamma receptor-dependent signaling.](#)
  7. Noordzij JG, Hartwig NG, Verreck FA, De Bruin-Versteeg S, De Boer T, Van Dissel JT, De Groot R, Ottenhoff TH, Van Dongen JJ.  
J Clin Immunol. 2007 Sep;27(5):490-6. Epub 2007 May 21.  
PMID: 17514500 [PubMed - indexed for MEDLINE]
  
- [The novel IFNGR1 mutation 774del4 produces a truncated form of interferon-gamma receptor 1 and has a dominant-negative effect on interferon-gamma signal transduction.](#)
  8. Okada S, Ishikawa N, Shirao K, Kawaguchi H, Tsumura M, Ohno Y, Yasunaga S, Ohtsubo M, Takihara Y, Kobayashi M.  
J Med Genet. 2007 Aug;44(8):485-91. Epub 2007 May 18. Erratum in: J Med Genet. 2007 Oct;44(10):628.  
PMID: 17513528 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [\[Multifocal infection due to Mycobacterium intracellulare: first case of interferon gamma receptor partial dominant deficiency in tropical French territory\].](#)
  9. Muszlak M, Chappier A, Barry Harivelo R, Castella C, Cr mades F, Goulois E, Laporte R, Casanova JL, Ranaivoarivony V, Hebert JC, Santiago J, Picard C.  
Arch Pediatr. 2007 Mar;14(3):270-2. Epub 2007 Jan 12. French.  
PMID: 17223023 [PubMed - indexed for MEDLINE]
  
- [Novel mutation in the interferon-gamma-receptor gene and susceptibility to mycobacterial infections.](#)
  10. Storgaard M, Varming K, Herlin T, Obel N.  
Scand J Immunol. 2006 Aug;64(2):137-9.  
PMID: 16867158 [PubMed - indexed for MEDLINE]
  
- [Successful hematopoietic stem cell transplantation in a child with active disseminated Mycobacterium fortuitum infection and interferon-gamma receptor 1 deficiency.](#)
  11. Chantrain CF, Bruwier A, Brichard B, Largent V, Chappier A, Feinberg J, Casanova JL, Stalens JP, Vermynen C.  
Bone Marrow Transplant. 2006 Jul;38(1):75-6. Epub 2006 May 22. No abstract available.  
PMID: 16715106 [PubMed - indexed for MEDLINE]

12. [Disseminated nontuberculous mycobacterial infection in a child with interferon-gamma receptor 1 deficiency.](#)  
Tsolia MN, Chaggier A, Taprantzi P, Servizoglou M, Tassios I, Spyridis N, Papageorgiou F, Santos OF, Casanova JL, Spyridis P.  
Eur J Pediatr. 2006 Jul;165(7):458-61. Epub 2006 Apr 7.  
PMID: 16602008 [PubMed - indexed for MEDLINE]
13. [Disseminated Mycobacterium avium infection in a 20-year-old female with partial recessive IFN-gammaR1 deficiency.](#)  
Remiszewski P, Roszkowska-Sliz B, Winek J, Chaggier A, Feinberg J, Langfort R, Bestry I, Augustynowicz-Kopeć E, Ptak J, Casanova JL, Rowińska-Zakrzewska E.  
Respiration. 2006;73(3):375-8. Epub 2005 Sep 29.  
PMID: 16195661 [PubMed - indexed for MEDLINE] **Free Article**
14. [A novel mutation in IFN-gamma receptor 2 with dominant negative activity: biological consequences of homozygous and heterozygous states.](#)  
Rosenzweig SD, Dorman SE, Uzel G, Shaw S, Scurlock A, Brown MR, Buckley RH, Holland SM.  
J Immunol. 2004 Sep 15;173(6):4000-8.  
PMID: 15356149 [PubMed - indexed for MEDLINE] **Free Article**
15. [Persistent Mycobacterium avium infection following nonmyeloablative allogeneic peripheral blood stem cell transplantation for interferon-gamma receptor-1 deficiency.](#)  
Horwitz ME, Uzel G, Linton GF, Miller JA, Brown MR, Malech HL, Holland SM.  
Blood. 2003 Oct 1;102(7):2692-4. Epub 2003 Jun 12.  
PMID: 12805054 [PubMed - indexed for MEDLINE] **Free Article**
16. [Disseminated Mycobacterium peregrinum infection in a child with complete interferon-gamma receptor-1 deficiency.](#)  
Koscielniak E, de Boer T, Dupuis S, Naumann L, Casanova JL, Ottenhoff TH.  
Pediatr Infect Dis J. 2003 Apr;22(4):378-80. No abstract available.  
PMID: 12712974 [PubMed - indexed for MEDLINE]
17. [Correction of complete interferon-gamma receptor 1 deficiency by bone marrow transplantation.](#)  
Reuter U, Roesler J, Thiede C, Schulz A, Classen CF, Oelschlagel U, Debatin KM, Friedrich W.  
Blood. 2002 Dec 1;100(12):4234-5. Epub 2002 Aug 8.  
PMID: 12393576 [PubMed - indexed for MEDLINE] **Free Article**
18. [Divergent role for TNF-alpha in IFN-gamma-induced killing of Toxoplasma gondii and Salmonella typhimurium contributes to selective susceptibility of patients with partial IFN-gamma receptor 1 deficiency.](#)  
Janssen R, Van Wengen A, Verhard E, De Boer T, Zomerdijk T, Ottenhoff TH, Van Dissel JT.  
J Immunol. 2002 Oct 1;169(7):3900-7.  
PMID: 12244188 [PubMed - indexed for MEDLINE] **Free Article**
19. [Genetic basis of patients with bacille Calmette-Guérin osteomyelitis in Japan: identification of dominant partial interferon-gamma receptor 1 deficiency as a predominant type.](#)  
Sasaki Y, Nomura A, Kusuhara K, Takada H, Ahmed S, Obinata K, Hamada K, Okimoto Y, Hara T.  
J Infect Dis. 2002 Mar 1;185(5):706-9. Epub 2002 Feb 14.  
PMID: 11865431 [PubMed - indexed for MEDLINE] **Free Article**
20. [Multifocal osteomyelitis caused by nontuberculous mycobacteria in patients with a genetic defect of the interferon-gamma receptor.](#)  
Arend SM, Janssen R, Gosen JJ, Waanders H, de Boer T, Ottenhoff TH, van Dissel JT.  
Neth J Med. 2001 Sep;59(3):140-51.  
PMID: 11583830 [PubMed - indexed for MEDLINE]
21. [A point mutation in a domain of gamma interferon receptor 1 provokes severe immunodeficiency.](#)  
Allende LM, López-Goyanes A, Paz-Artal E, Corell A, García-Pérez MA, Varela P, Scapellini A, Negreira S, Palenque E, Arnaiz-Villena A.  
Clin Diagn Lab Immunol. 2001 Jan;8(1):133-7.  
PMID: 11139207 [PubMed - indexed for MEDLINE] **Free PMC Article**
22. [\[Cytokine and cytokine receptor deficiencies causing defects in T cell/Th 1 cell differentiation and function\].](#)  
Hara T, Sasaki Y, Nomura A, Takada H.  
Nihon Rinsho Meneki Gakkai Kaishi. 2000 Jun;23(3):173-80. Review. Japanese. No abstract available.  
PMID: 10917017 [PubMed - indexed for MEDLINE]
23. [In a novel form of IFN-gamma receptor 1 deficiency, cell surface receptors fail to bind IFN-gamma.](#)  
Jouanguy E, Dupuis S, Pallier A, Döffinger R, Fondanèche MC, Fieschi C, Lamhamedi-Cherradi S, Altare F, Emile JF, Lutz P, Bordigoni P, Cokugras H, Akcakaya N, Landman-Parker J, Donnadieu J, Camcioglu Y, Casanova JL.  
J Clin Invest. 2000 May;105(10):1429-36.  
PMID: 10811850 [PubMed - indexed for MEDLINE] **Free PMC Article**

- 24. [Partial interferon-gamma receptor signaling chain deficiency in a patient with bacille Calmette-Guérin and Mycobacterium abscessus infection.](#)  
Döffinger R, Jouanguy E, Dupuis S, Fondanèche MC, Stephan JL, Emile JF, Lamhamedi-Cherradi S, Altare F, Pallier A, Barcenas-Morales G, Meinel E, Krause C, Pestka S, Schreiber RD, Novelli F, Casanova JL.  
J Infect Dis. 2000 Jan;181(1):379-84.  
PMID: 10608793 [PubMed - indexed for MEDLINE] **Free Article**
  
- 25. [Abnormal regulation of interferon-gamma, interleukin-12, and tumor necrosis factor-alpha in human interferon-gamma receptor 1 deficiency.](#)  
Holland SM, Dorman SE, Kwon A, Pitha-Rowe IF, Frucht DM, Gerstberger SM, Noel GJ, Vesterhus P, Brown MR, Fleisher TA.  
J Infect Dis. 1998 Oct;178(4):1095-104.  
PMID: 9806040 [PubMed - indexed for MEDLINE] **Free Article**
  
- 26. [Partial interferon-gamma receptor 1 deficiency in a child with tuberculoid bacillus Calmette-Guérin infection and a sibling with clinical tuberculosis.](#)  
Jouanguy E, Lamhamedi-Cherradi S, Altare F, Fondanèche MC, Tuerlinckx D, Blanche S, Emile JF, Gaillard JL, Schreiber R, Levin M, Fischer A, Hivroz C, Casanova JL.  
J Clin Invest. 1997 Dec 1;100(11):2658-64.  
PMID: 9389728 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- 27. [Fatal disseminated Mycobacterium smegmatis infection in a child with inherited interferon gamma receptor deficiency.](#)  
Pierre-Audigier C, Jouanguy E, Lamhamedi S, Altare F, Raugier J, Vincent V, Canioni D, Emile JF, Fischer A, Blanche S, Gaillard JL, Casanova JL.  
Clin Infect Dis. 1997 May;24(5):982-4.  
PMID: 9142806 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: interferon gamma receptor 1 deficiency and not review and not mice

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (44)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 44

- [Clinical and Host Genetic Characteristics of Mendelian Susceptibility to Mycobacterial Diseases in Japan.](#)
  1. Hoshina T, Takada H, Sasaki-Mihara Y, Kusuhara K, Ohshima K, Okada S, Kobayashi M, Ohara O, Hara T. J Clin Immunol. 2011 Jan 8. [Epub ahead of print]  
PMID: 21221749 [PubMed - as supplied by publisher]
  
- [Severe axillary lymphadenitis after BCG vaccination: alert for primary immunodeficiencies.](#)
  2. Santos A, Dias A, Cordeiro A, Cordinhã C, Lemos S, Rocha G, Faria E. J Microbiol Immunol Infect. 2010 Dec;43(6):530-7.  
PMID: 21195982 [PubMed - in process]
  
- [Meningoencephalitis caused by varicella-zoster virus reactivation in a child with dominant partial interferon-gamma receptor-1 deficiency.](#)
  3. Roesler J, Hedrich C, Laass MW, Heyne K, Rösen-Wolff A. Pediatr Infect Dis J. 2011 Mar;30(3):265-6.  
PMID: 20842068 [PubMed - in process]
  
- [Multiple cutaneous squamous cell carcinomas in a patient with interferon gamma receptor 2 \(IFN gamma R2\) deficiency.](#)
  4. Toyoda H, Ido M, Nakanishi K, Nakano T, Kamiya H, Matsumine A, Uchida A, Mizutani H, de Beaucoudrey L, Vogt G, Boisson-Dupuis S, Bustamante J, Casanova JL, Komada Y. J Med Genet. 2010 Sep;47(9):631-4. Epub 2010 Jun 28.  
PMID: 20587411 [PubMed - indexed for MEDLINE]
  
- [Abnormalities in intracellular processing and expression of interferon-gamma receptor in adherent cells from lepromatous leprosy patients.](#)
  5. Guerrero-Velázquez C, Lopez-Roa RI, Delgado-Rizo V, Guillen-Vargas CM, Montoya-Buelna M, Fafutis-Morris M. J Interferon Cytokine Res. 2010 Feb;30(2):99-105.  
PMID: 20039824 [PubMed - indexed for MEDLINE]
  
- [A novel form of cell type-specific partial IFN-gammaR1 deficiency caused by a germ line mutation of the IFNGR1 initiation codon.](#)
  6. Kong XF, Vogt G, Chapgier A, Lamaze C, Bustamante J, Prando C, Fortin A, Puel A, Feinberg J, Zhang XX, Gonnord P, Pihkala-Saarinen UM, Arola M, Moilanen P, Abel L, Korppi M, Boisson-Dupuis S, Casanova JL. Hum Mol Genet. 2010 Feb 1;19(3):434-44. Epub 2009 Oct 31.  
PMID: 19880857 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Disseminated Mycobacterium scrofulaceum infection in a child with interferon-gamma receptor 1 deficiency.](#)
  7. Marazzi MG, Chapgier A, Defilippi AC, Pistoia V, Mangini S, Savioli C, Dell'Acqua A, Feinberg J, Tortoli E, Casanova JL. Int J Infect Dis. 2010 Feb;14(2):e167-70. Epub 2009 Oct 31.  
PMID: 19880337 [PubMed - indexed for MEDLINE]
  
- [Refractory disseminated coccidioidomycosis and mycobacteriosis in interferon-gamma receptor 1 deficiency.](#)
  8. Vinh DC, Masannat F, Dzioba RB, Galgiani JN, Holland SM. Clin Infect Dis. 2009 Sep 15;49(6):e62-5.  
PMID: 19681704 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Influenza virus vaccination induces interleukin-12/23 receptor beta 1 \(IL-12/23R beta 1\)-independent production of gamma interferon \(IFN-gamma\) and humoral immunity in patients with genetic deficiencies in IL-12/23R beta 1 or IFN-gamma receptor 1.](#)
  9. de Boer T, van Dissel JT, Kuijpers TW, Rimmelzwaan GF, Kroon FP, Ottenhoff TH. Clin Vaccine Immunol. 2008 Aug;15(8):1171-5. Epub 2008 Jun 18.  
PMID: 18562567 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Infections due to various atypical mycobacteria in a Norwegian multiplex family with dominant interferon-gamma receptor deficiency.](#)
  10. Glosli H, Stray-Pedersen A, Brun AC, Holtmon LW, Tønjum T, Chapgier A, Casanova JL, Abrahamsen TG. Clin Infect Dis. 2008 Feb 1;46(3):e23-7.  
PMID: 18171304 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Interferon gamma, IL-12, IL-12R and STAT-1 immunodeficiency diseases: disorders of the interface of innate and adaptive immunity.](#)
  11. Holland SM. Immunol Res. 2007;38(1-3):342-6.  
PMID: 17917041 [PubMed - indexed for MEDLINE]

- [IFN-gamma regulates Fas ligand expression in human CD4+ T lymphocytes and controls their anti-mycobacterial cytotoxic functions.](#)

12. Boselli D, Losana G, Bernabei P, Bosisio D, Drysdale P, Kiessling R, Gaston JS, Lammas D, Casanova JL, Kumararatne DS, Novelli F. Eur J Immunol. 2007 Aug;37(8):2196-204. PMID: 17595676 [PubMed - indexed for MEDLINE]
- [Two patients with complete defects in interferon gamma receptor-dependent signaling.](#)

13. Noordzij JG, Hartwig NG, Verreck FA, De Bruin-Versteeg S, De Boer T, Van Dissel JT, De Groot R, Ottenhoff TH, Van Dongen JJ. J Clin Immunol. 2007 Sep;27(5):490-6. Epub 2007 May 21. PMID: 17514500 [PubMed - indexed for MEDLINE]
- [The novel IFNGR1 mutation 774del4 produces a truncated form of interferon-gamma receptor 1 and has a dominant-negative effect on interferon-gamma signal transduction.](#)

14. Okada S, Ishikawa N, Shirao K, Kawaguchi H, Tsumura M, Ohno Y, Yasunaga S, Ohtsubo M, Takihara Y, Kobayashi M. J Med Genet. 2007 Aug;44(8):485-91. Epub 2007 May 18. Erratum in: J Med Genet. 2007 Oct;44(10):628. PMID: 17513528 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [\[Multifocal infection due to Mycobacterium intracellulare: first case of interferon gamma receptor partial dominant deficiency in tropical French territory\].](#)

15. Muszlak M, Chappier A, Barry Harivelo R, Castella C, Crémades F, Goulois E, Laporte R, Casanova JL, Ranaivoarivony V, Hebert JC, Santiago J, Picard C. Arch Pediatr. 2007 Mar;14(3):270-2. Epub 2007 Jan 12. French. PMID: 17223023 [PubMed - indexed for MEDLINE]
- [Novel mutation in the interferon-gamma-receptor gene and susceptibility to mycobacterial infections.](#)

16. Storgaard M, Varming K, Herlin T, Obel N. Scand J Immunol. 2006 Aug;64(2):137-9. PMID: 16867158 [PubMed - indexed for MEDLINE]
- [Successful hematopoietic stem cell transplantation in a child with active disseminated Mycobacterium fortuitum infection and interferon-gamma receptor 1 deficiency.](#)

17. Chantrain CF, Bruwier A, Brichard B, Largent V, Chappier A, Feinberg J, Casanova JL, Stalens JP, Vermynen C. Bone Marrow Transplant. 2006 Jul;38(1):75-6. Epub 2006 May 22. No abstract available. PMID: 16715106 [PubMed - indexed for MEDLINE]
- [Partial interferon-gamma receptor deficiency and non-tuberculous mycobacterial lung disease.](#)

18. Hwang JH, Koh WJ, Kim EJ, Kang EH, Suh GY, Chung MP, Kim H, Kwon OJ. Tuberculosis (Edinb). 2006 Sep;86(5):382-5. Epub 2006 May 8. PMID: 16682253 [PubMed - indexed for MEDLINE]
- [Disseminated nontuberculous mycobacterial infection in a child with interferon-gamma receptor 1 deficiency.](#)

19. Tsolia MN, Chappier A, Taprantzi P, Servitzoglou M, Tassios I, Spyridis N, Papageorgiou F, Santos OF, Casanova JL, Spyridis P. Eur J Pediatr. 2006 Jul;165(7):458-61. Epub 2006 Apr 7. PMID: 16602008 [PubMed - indexed for MEDLINE]
- [Disseminated Mycobacterium avium infection in a 20-year-old female with partial recessive IFNgammaR1 deficiency.](#)

20. Remiszewski P, Roszkowska-Sliz B, Winek J, Chappier A, Feinberg J, Langfort R, Bestry I, Augustynowicz-Kopeć E, Ptak J, Casanova JL, Rowińska-Zakrzewska E. Respiration. 2006;73(3):375-8. Epub 2005 Sep 29. PMID: 16195661 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Disseminated histoplasmosis in persons with interferon-gamma receptor 1 deficiency.](#)

21. Zerbe CS, Holland SM. Clin Infect Dis. 2005 Aug 15;41(4):e38-41. Epub 2005 Jul 15. PMID: 16028145 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Clinical features of dominant and recessive interferon gamma receptor 1 deficiencies.](#)

22. Dorman SE, Picard C, Lammas D, Heyne K, van Dissel JT, Baretto R, Rosenzweig SD, Newport M, Levin M, Roesler J, Kumararatne D, Casanova JL, Holland SM. Lancet. 2004 Dec 11-17;364(9451):2113-21. PMID: 15589309 [PubMed - indexed for MEDLINE]
- [Hematopoietic stem cell transplantation for complete IFN-gamma receptor 1 deficiency: a multi-institutional survey.](#)

23. Roesler J, Horwitz ME, Picard C, Bordigoni P, Davies G, Koscielniak E, Levin M, Veys P, Reuter U, Schulz A, Thiede C, Klingebiel T, Fischer A, Holland SM, Casanova JL, Friedrich W. J Pediatr. 2004 Dec;145(6):806-12. PMID: 15580206 [PubMed - indexed for MEDLINE]
- [Rac1 contributes to maximal activation of STAT1 and STAT3 in IFN-gamma-stimulated rat astrocytes.](#)

24. Park EJ, Ji KA, Jeon SB, Choi WH, Han IO, You HJ, Kim JH, Jou I, Joe EH. J Immunol. 2004 Nov 1;173(9):5697-703. PMID: 15494521 [PubMed - indexed for MEDLINE] [Free Article](#)



25. [A novel mutation in IFN-gamma receptor 2 with dominant negative activity: biological consequences of homozygous and heterozygous states.](#)  
Rosenzweig SD, Dorman SE, Uzel G, Shaw S, Scurlock A, Brown MR, Buckley RH, Holland SM.  
J Immunol. 2004 Sep 15;173(6):4000-8.  
PMID: 15356149 [PubMed - indexed for MEDLINE] **Free Article**
26. [Persistent Mycobacterium avium infection following nonmyeloablative allogeneic peripheral blood stem cell transplantation for interferon-gamma receptor-1 deficiency.](#)  
Horwitz ME, Uzel G, Linton GF, Miller JA, Brown MR, Malech HL, Holland SM.  
Blood. 2003 Oct 1;102(7):2692-4. Epub 2003 Jun 12.  
PMID: 12805054 [PubMed - indexed for MEDLINE] **Free Article**
27. [Disseminated Mycobacterium peregrinum infection in a child with complete interferon-gamma receptor-1 deficiency.](#)  
Koscielniak E, de Boer T, Dupuis S, Naumann L, Casanova JL, Ottenhoff TH.  
Pediatr Infect Dis J. 2003 Apr;22(4):378-80. No abstract available.  
PMID: 12712974 [PubMed - indexed for MEDLINE]
28. [Severe Mycobacterium bovis BCG infections in a large series of novel IL-12 receptor beta1 deficient patients and evidence for the existence of partial IL-12 receptor beta1 deficiency.](#)  
Lichtenauer-Kaligis EG, de Boer T, Verreck FA, van Voorden S, Hoeve MA, van de Vosse E, Ersoy F, Tezcan I, van Dissel JT, Sanal O, Ottenhoff TH.  
Eur J Immunol. 2003 Jan;33(1):59-69.  
PMID: 12594833 [PubMed - indexed for MEDLINE]
29. [Correction of complete interferon-gamma receptor 1 deficiency by bone marrow transplantation.](#)  
Reuter U, Roesler J, Thiede C, Schulz A, Classen CF, Oelschlagel U, Debatin KM, Friedrich W.  
Blood. 2002 Dec 1;100(12):4234-5. Epub 2002 Aug 8.  
PMID: 12393576 [PubMed - indexed for MEDLINE] **Free Article**
30. [\[Adverse events following immunization with BCG vaccine in Poland 1994-2000\].](#)  
Szczyka I.  
Przegl Epidemiol. 2002;56(2):205-16. Polish.  
PMID: 12371352 [PubMed - indexed for MEDLINE]
31. [Divergent role for TNF-alpha in IFN-gamma-induced killing of Toxoplasma gondii and Salmonella typhimurium contributes to selective susceptibility of patients with partial IFN-gamma receptor 1 deficiency.](#)  
Janssen R, Van Wengen A, Verhard E, De Boer T, Zomerdijk T, Ottenhoff TH, Van Dissel JT.  
J Immunol. 2002 Oct 1;169(7):3900-7.  
PMID: 12244188 [PubMed - indexed for MEDLINE] **Free Article**
32. [Genetic basis of patients with bacille Calmette-Guérin osteomyelitis in Japan: identification of dominant partial interferon-gamma receptor 1 deficiency as a predominant type.](#)  
Sasaki Y, Nomura A, Kusuhara K, Takada H, Ahmed S, Obinata K, Hamada K, Okimoto Y, Hara T.  
J Infect Dis. 2002 Mar 1;185(5):706-9. Epub 2002 Feb 14.  
PMID: 11865431 [PubMed - indexed for MEDLINE] **Free Article**
33. [Requirement for both IL-12 and IFN-gamma signaling pathways in optimal IFN-gamma production by human T cells.](#)  
Losana G, Rigamonti L, Borghi I, Assenzio B, Ariotti S, Jouanguy E, Altare F, Forni G, Casanova JL, Novelli F.  
Eur J Immunol. 2002 Mar;32(3):693-700.  
PMID: 11857344 [PubMed - indexed for MEDLINE]
34. [Multifocal osteomyelitis caused by nontuberculous mycobacteria in patients with a genetic defect of the interferon-gamma receptor.](#)  
Arend SM, Janssen R, Gosen JJ, Waanders H, de Boer T, Ottenhoff TH, van Dissel JT.  
Neth J Med. 2001 Sep;59(3):140-51.  
PMID: 11583830 [PubMed - indexed for MEDLINE]
35. [Failure of MHC class II expression in neonatal alveolar macrophages: potential role of class II transactivator.](#)  
Lee PT, Holt PG, McWilliam AS.  
Eur J Immunol. 2001 Aug;31(8):2347-56.  
PMID: 11477547 [PubMed - indexed for MEDLINE]
36. [A point mutation in a domain of gamma interferon receptor 1 provokes severe immunodeficiency.](#)  
Allende LM, López-Goyanes A, Paz-Artal E, Corell A, García-Pérez MA, Varela P, Scarpellini A, Negreira S, Palenque E, Arnaiz-Villena A.  
Clin Diagn Lab Immunol. 2001 Jan;8(1):133-7.  
PMID: 11139207 [PubMed - indexed for MEDLINE] **Free PMC Article**



- 37. [Partial interferon-gamma receptor signaling chain deficiency in a patient with bacille Calmette-Guérin and Mycobacterium abscessus infection.](#)  
Döffinger R, Jouanguy E, Dupuis S, Fondanèche MC, Stephan JL, Emile JF, Lamhamedi-Cherradi S, Altare F, Pallier A, Barcenas-Morales G, Meinel E, Krause C, Pestka S, Schreiber RD, Novelli F, Casanova JL.  
J Infect Dis. 2000 Jan;181(1):379-84.  
PMID: 10608793 [PubMed - indexed for MEDLINE] **Free Article**
  
- 38. [Surface expression of the IFN-gamma R2 chain is regulated by intracellular trafficking in human T lymphocytes.](#)  
Rigamonti L, Ariotti S, Losana G, Gradini R, Russo MA, Jouanguy E, Casanova JL, Forni G, Novelli F.  
J Immunol. 2000 Jan 1;164(1):201-7.  
PMID: 10605012 [PubMed - indexed for MEDLINE] **Free Article**
  
- 39. [\[Infections caused by BCG and atypical mycobacteria in children: a new group of immune deficiencies\].](#)  
Casanova JL.  
Arch Pediatr. 1999 Feb;6(2):139-40. French. No abstract available.  
PMID: 10079880 [PubMed - indexed for MEDLINE]
  
- 40. [A selective defect of IFN-gamma- but not of IFN-alpha-induced JAK/STAT pathway in a subset of U937 clones prevents the antiretroviral effect of IFN-gamma against HIV-1.](#)  
Bovolenta C, Lorini AL, Mantelli B, Camorali L, Novelli F, Biswas P, Poli G.  
J Immunol. 1999 Jan 1;162(1):323-30.  
PMID: 9886402 [PubMed - indexed for MEDLINE] **Free Article**
  
- 41. [Abnormal regulation of interferon-gamma, interleukin-12, and tumor necrosis factor-alpha in human interferon-gamma receptor 1 deficiency.](#)  
Holland SM, Dorman SE, Kwon A, Pitha-Rowe IF, Frucht DM, Gerstberger SM, Noel GJ, Vesterhus P, Brown MR, Fleisher TA.  
J Infect Dis. 1998 Oct;178(4):1095-104.  
PMID: 9806040 [PubMed - indexed for MEDLINE] **Free Article**
  
- 42. [Severe mycobacterial and Salmonella infections in interleukin-12 receptor-deficient patients.](#)  
de Jong R, Altare F, Haagen IA, Elferink DG, Boer T, van Breda Vriesman PJ, Kabel PJ, Draaisma JM, van Dissel JT, Kroon FP, Casanova JL, Ottenhoff TH.  
Science. 1998 May 29;280(5368):1435-8.  
PMID: 9603733 [PubMed - indexed for MEDLINE] **Free Article**
  
- 43. [Partial interferon-gamma receptor 1 deficiency in a child with tuberculoid bacillus Calmette-Guérin infection and a sibling with clinical tuberculosis.](#)  
Jouanguy E, Lamhamedi-Cherradi S, Altare F, Fondanèche MC, Tuerlinckx D, Blanche S, Emile JF, Gaillard JL, Schreiber R, Levin M, Fischer A, Hivroz C, Casanova JL.  
J Clin Invest. 1997 Dec 1;100(11):2658-64.  
PMID: 9389728 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- 44. [Fatal disseminated Mycobacterium smegmatis infection in a child with inherited interferon gamma receptor deficiency.](#)  
Pierre-Audigier C, Jouanguy E, Lamhamedi S, Altare F, Raugier J, Vincent V, Canioni D, Emile JF, Fischer A, Blanche S, Gaillard JL, Casanova JL.  
Clin Infect Dis. 1997 May;24(5):982-4.  
PMID: 9142806 [PubMed - indexed for MEDLINE] **Free Article**

## PubMed

Search: interferon gamma receptor 2 deficiency and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (41)

Display Settings: Summary, 100 per page, Sorted by Recently Added

[Manage Filters](#)Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 41

- [Multiple cutaneous squamous cell carcinomas in a patient with interferon gamma receptor 2 \(IFN gamma R2\) deficiency.](#)
1. Toyoda H, Ido M, Nakanishi K, Nakano T, Kamiya H, Matsumine A, Uchida A, Mizutani H, de Beaucoudrey L, Vogt G, Boisson-Dupuis S, Bustamante J, Casanova JL, Komada Y.  
J Med Genet. 2010 Sep;47(9):631-4. Epub 2010 Jun 28.  
PMID: 20587411 [PubMed - indexed for MEDLINE]
- [Paternal uniparental isodisomy of chromosome 6 causing a complex syndrome including complete IFN-gamma receptor 1 deficiency.](#)
2. Prando C, Boisson-Dupuis S, Grant AV, Kong XF, Bustamante J, Feinberg J, Chappier A, Rose Y, Janni re L, Rizzardi E, Zhang Q, Shanahan CM, Viollet L, Lyonnet S, Abel L, Ruga EM, Casanova JL.  
Am J Med Genet A. 2010 Mar;152A(3):622-9. Review.  
PMID: 20186794 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [A novel form of cell type-specific partial IFN-gammaR1 deficiency caused by a germ line mutation of the IFNGR1 initiation codon.](#)
3. Kong XF, Vogt G, Chappier A, Lamaze C, Bustamante J, Prando C, Fortin A, Puel A, Feinberg J, Zhang XX, Gonnord P, Pihkala-Saarinen UM, Arola M, Moilanen P, Abel L, Korppi M, Boisson-Dupuis S, Casanova JL.  
Hum Mol Genet. 2010 Feb 1;19(3):434-44. Epub 2009 Oct 31.  
PMID: 19880857 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [Disseminated Mycobacterium scrofulaceum infection in a child with interferon-gamma receptor 1 deficiency.](#)
4. Marazzi MG, Chappier A, Defilippi AC, Pistoia V, Mangini S, Savioli C, Dell'Acqua A, Feinberg J, Tortoli E, Casanova JL.  
Int J Infect Dis. 2010 Feb;14(2):e167-70. Epub 2009 Oct 31.  
PMID: 19880337 [PubMed - indexed for MEDLINE]
- [Refractory disseminated coccidioidomycosis and mycobacteriosis in interferon-gamma receptor 1 deficiency.](#)
5. Vinh DC, Masannat F, Dzioba RB, Galgiani JN, Holland SM.  
Clin Infect Dis. 2009 Sep 15;49(6):e62-5.  
PMID: 19681704 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [Successful hematopoietic stem cell transplantation from an unrelated donor in a child with interferon gamma receptor deficiency.](#)
6. Moilanen P, Korppi M, Hovi L, Chappier A, Feinberg J, Kong XF, Boisson-Dupuis S, Arola M, Casanova JL, Saarinen-Pihkala UM.  
Pediatr Infect Dis J. 2009 Jul;28(7):658-60.  
PMID: 19451859 [PubMed - indexed for MEDLINE]
- [Osteomyelitis of the calcaneus due to atypical Mycobacterium.](#)
7. Michelarakis J, Varouhaki C.  
Foot Ankle Surg. 2009;15(2):106-8. Epub 2008 Oct 31.  
PMID: 19410179 [PubMed - indexed for MEDLINE]
- [Complementation of a pathogenic IFNGR2 misfolding mutation with modifiers of N-glycosylation.](#)
8. Vogt G, Bustamante J, Chappier A, Feinberg J, Boisson Dupuis S, Picard C, Mahlaoui N, Gineau L, Alca s A, Lamaze C, Puck JM, de Saint Basile G, Khayat CD, Mikhael R, Casanova JL.  
J Exp Med. 2008 Aug 4;205(8):1729-37. Epub 2008 Jul 14.  
PMID: 18625743 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [Infections due to various atypical mycobacteria in a Norwegian multiplex family with dominant interferon-gamma receptor deficiency.](#)
9. Glosli H, Stray-Pedersen A, Brun AC, Holtmon LW, T njum T, Chappier A, Casanova JL, Abrahamsen TG.  
Clin Infect Dis. 2008 Feb 1;46(3):e23-7.  
PMID: 18171304 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Two patients with complete defects in interferon gamma receptor-dependent signaling.](#)
10. Noordzij JG, Hartwig NG, Verreck FA, De Bruin-Versteeg S, De Boer T, Van Dissel JT, De Groot R, Ottenhoff TH, Van Dongen JJ.  
J Clin Immunol. 2007 Sep;27(5):490-6. Epub 2007 May 21.  
PMID: 17514500 [PubMed - indexed for MEDLINE]
- [The novel IFNGR1 mutation 774del4 produces a truncated form of interferon-gamma receptor 1 and has a dominant-negative effect on interferon-gamma signal transduction.](#)
11. Okada S, Ishikawa N, Shirao K, Kawaguchi H, Tsumura M, Ohno Y, Yasunaga S, Ohtsubo M, Takihara Y, Kobayashi M.  
J Med Genet. 2007 Aug;44(8):485-91. Epub 2007 May 18. Erratum in: J Med Genet. 2007 Oct;44(10):628.  
PMID: 17513528 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

- [Growth hormone secretion and immunological function of a male patient with a homozygous STAT5b mutation.](#)
12. Walenkamp MJ, Vidarsdottir S, Pereira AM, Karperien M, van Doorn J, van Duyvenvoorde HA, Breuning MH, Roelfsema F, Kruijthof MF, van Disssel J, Janssen R, Wit JM, Romijn JA.  
Eur J Endocrinol. 2007 Feb;156(2):155-65.  
PMID: 17287404 [PubMed - indexed for MEDLINE] **Free Article**
- [\[Multifocal infection due to Mycobacterium intracellulare: first case of interferon gamma receptor partial dominant deficiency in tropical French territory\].](#)
13. Muszlak M, Chappier A, Barry Harivelo R, Castella C, Crémades F, Goulois E, Laporte R, Casanova JL, Ranaivoarivony V, Hebert JC, Santiago J, Picard C.  
Arch Pediatr. 2007 Mar;14(3):270-2. Epub 2007 Jan 12. French.  
PMID: 17223023 [PubMed - indexed for MEDLINE]
- [Adjunctive treatment of disseminated Mycobacterium avium complex infection with interferon alpha-2b in a patient with complete interferon-gamma receptor R1 deficiency.](#)
14. Ward CM, Jyonouchi H, Kottenko SV, Smirnov SV, Patel R, Aguila H, McSherry G, Dashefsky B, Holland SM.  
Eur J Pediatr. 2007 Sep;166(9):981-5. Epub 2006 Nov 21.  
PMID: 17120031 [PubMed - indexed for MEDLINE]
- [Novel mutation in the interferon-gamma-receptor gene and susceptibility to mycobacterial infections.](#)
15. Storgaard M, Varming K, Herlin T, Obeil N.  
Scand J Immunol. 2006 Aug;64(2):137-9.  
PMID: 16867158 [PubMed - indexed for MEDLINE]
- [Successful hematopoietic stem cell transplantation in a child with active disseminated Mycobacterium fortuitum infection and interferon-gamma receptor 1 deficiency.](#)
16. Chantrain CF, Bruwier A, Brichard B, Largent V, Chappier A, Feinberg J, Casanova JL, Stalens JP, Vermynen C.  
Bone Marrow Transplant. 2006 Jul;38(1):75-6. Epub 2006 May 22. No abstract available.  
PMID: 16715106 [PubMed - indexed for MEDLINE]
- [Disseminated nontuberculous mycobacterial infection in a child with interferon-gamma receptor 1 deficiency.](#)
17. Tsolia MN, Chappier A, Taprantzi P, Servitzoglou M, Tassios I, Spyridis N, Papageorgiou F, Santos OF, Casanova JL, Spyridis P.  
Eur J Pediatr. 2006 Jul;165(7):458-61. Epub 2006 Apr 7.  
PMID: 16602008 [PubMed - indexed for MEDLINE]
- [Disseminated Mycobacterium avium infection in a 20-year-old female with partial recessive IFNgammaR1 deficiency.](#)
18. Remiszewski P, Roszkowska-Sliz B, Winek J, Chappier A, Feinberg J, Langfort R, Bestry I, Augustynowicz-Kopeć E, Ptak J, Casanova JL, Rowińska-Zakrzewska E.  
Respiration. 2006;73(3):375-8. Epub 2005 Sep 29.  
PMID: 16195661 [PubMed - indexed for MEDLINE] **Free Article**
- [Inherited disorders of the IL-12-IFN-gamma axis in patients with disseminated BCG infection.](#)
19. Mansouri D, Adimi P, Mirsaeidi M, Mansouri N, Khalilzadeh S, Masjedi MR, Adimi P, Tabarsi P, Naderi M, Filipe-Santos O, Vogt G, de Beaucoudrey L, Bustamante J, Chappier A, Feinberg J, Velayati AA, Casanova JL.  
Eur J Pediatr. 2005 Dec;164(12):753-7. Epub 2005 Aug 10.  
PMID: 16091917 [PubMed - indexed for MEDLINE]
- [A novel mutation in IFN-gamma receptor 2 with dominant negative activity: biological consequences of homozygous and heterozygous states.](#)
20. Rosenzweig SD, Dorman SE, Uzel G, Shaw S, Scurlock A, Brown MR, Buckley RH, Holland SM.  
J Immunol. 2004 Sep 15;173(6):4000-8.  
PMID: 15356149 [PubMed - indexed for MEDLINE] **Free Article**
- [HHV-8-associated Kaposi sarcoma in a child with IFNgammaR1 deficiency.](#)
21. Camcioglu Y, Picard C, Lacoste V, Dupuis S, Akçakaya N, Cokura H, Kaner G, Demirkesen C, Plancoulaine S, Emile JF, Gessain A, Casanova JL.  
J Pediatr. 2004 Apr;144(4):519-23.  
PMID: 15069403 [PubMed - indexed for MEDLINE]
- [Persistent Mycobacterium avium infection following nonmyeloablative allogeneic peripheral blood stem cell transplantation for interferon-gamma receptor-1 deficiency.](#)
22. Horwitz ME, Uzel G, Linton GF, Miller JA, Brown MR, Malech HL, Holland SM.  
Blood. 2003 Oct 1;102(7):2692-4. Epub 2003 Jun 12.  
PMID: 12805054 [PubMed - indexed for MEDLINE] **Free Article**
- [Disseminated Mycobacterium peregrinum infection in a child with complete interferon-gamma receptor-1 deficiency.](#)
23. Koscielniak E, de Boer T, Dupuis S, Naumann L, Casanova JL, Ottenhoff TH.  
Pediatr Infect Dis J. 2003 Apr;22(4):378-80. No abstract available.  
PMID: 12712974 [PubMed - indexed for MEDLINE]

- [Correction of complete interferon-gamma receptor 1 deficiency by bone marrow transplantation.](#)
- 24. Reuter U, Roesler J, Thiede C, Schulz A, Classen CF, Oelschlagel U, Debatin KM, Friedrich W. *Blood*. 2002 Dec 1;100(12):4234-5. Epub 2002 Aug 8. PMID: 12393576 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Fever and leg pain in a 42-month-old.](#)
- 25. Waibel KH, Regis DP, Uzel G, Rosenzweig SD, Holland SM. *Ann Allergy Asthma Immunol*. 2002 Sep;89(3):239-43. No abstract available. PMID: 12269642 [PubMed - indexed for MEDLINE]
  
- [Divergent role for TNF-alpha in IFN-gamma-induced killing of Toxoplasma gondii and Salmonella typhimurium contributes to selective susceptibility of patients with partial IFN-gamma receptor 1 deficiency.](#)
- 26. Janssen R, Van Wengen A, Verhard E, De Boer T, Zomerdijk T, Ottenhoff TH, Van Dissel JT. *J Immunol*. 2002 Oct 1;169(7):3900-7. PMID: 12244188 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Genetic basis of patients with bacille Calmette-Guérin osteomyelitis in Japan: identification of dominant partial interferon-gamma receptor 1 deficiency as a predominant type.](#)
- 27. Sasaki Y, Nomura A, Kusuhara K, Takada H, Ahmed S, Obinata K, Hamada K, Okimoto Y, Hara T. *J Infect Dis*. 2002 Mar 1;185(5):706-9. Epub 2002 Feb 14. PMID: 11865431 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Interferon-gamma receptor deficiency mimicking Langerhans' cell histiocytosis.](#)
- 28. Edgar JD, Smyth AE, Pritchard J, Lammas D, Jouanguy E, Hague R, Novelli V, Dempsey S, Sweeney L, Taggart AJ, O'hara D, Casanova JL, Kumararatne DS. *J Pediatr*. 2001 Oct;139(4):600-3. PMID: 11598613 [PubMed - indexed for MEDLINE]
  
- [Multifocal osteomyelitis caused by nontuberculous mycobacteria in patients with a genetic defect of the interferon-gamma receptor.](#)
- 29. Arend SM, Janssen R, Gosen JJ, Waanders H, de Boer T, Ottenhoff TH, van Dissel JT. *Neth J Med*. 2001 Sep;59(3):140-51. PMID: 11583830 [PubMed - indexed for MEDLINE]
  
- [A point mutation in a domain of gamma interferon receptor 1 provokes severe immunodeficiency.](#)
- 30. Allende LM, López-Goyanes A, Paz-Artal E, Corell A, García-Pérez MA, Varela P, Scarpellini A, Negreira S, Palenque E, Arnaiz-Villena A. *Clin Diagn Lab Immunol*. 2001 Jan;8(1):133-7. PMID: 11139207 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Respiratory syncytial virus infection in patients with phagocyte defects.](#)
- 31. Uzel G, Premkumar A, Malech HL, Holland SM. *Pediatrics*. 2000 Oct;106(4):835-7. PMID: 11015530 [PubMed - indexed for MEDLINE]
  
- [\[Cytokine and cytokine receptor deficiencies causing defects in T cell/Th 1 cell differentiation and function\].](#)
- 32. Hara T, Sasaki Y, Nomura A, Takada H. *Nihon Rinsho Meneki Gakkai Kaishi*. 2000 Jun;23(3):173-80. Review. Japanese. No abstract available. PMID: 10917017 [PubMed - indexed for MEDLINE]
  
- [In a novel form of IFN-gamma receptor 1 deficiency, cell surface receptors fail to bind IFN-gamma.](#)
- 33. Jouanguy E, Dupuis S, Pallier A, Döffinger R, Fondanèche MC, Fieschi C, Lamhamedi-Cherradi S, Altare F, Emile JF, Lutz P, Bordigoni P, Cokugras H, Akcakaya N, Landman-Parker J, Donnadieu J, Camcioglu Y, Casanova JL. *J Clin Invest*. 2000 May;105(10):1429-36. PMID: 10811850 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Partial interferon-gamma receptor signaling chain deficiency in a patient with bacille Calmette-Guérin and Mycobacterium abscessus infection.](#)
- 34. Döffinger R, Jouanguy E, Dupuis S, Fondanèche MC, Stephan JL, Emile JF, Lamhamedi-Cherradi S, Altare F, Pallier A, Barcenas-Morales G, Meinl E, Krause C, Pestka S, Schreiber RD, Novelli F, Casanova JL. *J Infect Dis*. 2000 Jan;181(1):379-84. PMID: 10608793 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Viral infections in interferon-gamma receptor deficiency.](#)
- 35. Dorman SE, Uzel G, Roesler J, Bradley JS, Bastian J, Billman G, King S, Filie A, Schermerhorn J, Holland SM. *J Pediatr*. 1999 Nov;135(5):640-3. PMID: 10547254 [PubMed - indexed for MEDLINE]
  
- [Listeria monocytogenes and recurrent mycobacterial infections in a child with complete interferon-gamma-receptor \(IFNgammaR1\) deficiency: mutational analysis and evaluation of therapeutic options.](#)
- 36. Roesler J, Kofink B, Wendisch J, Heyden S, Paul D, Friedrich W, Casanova JL, Leupold W, Gahr M, Rösen-Wolff A. *Exp Hematol*. 1999 Sep;27(9):1368-74. Review. PMID: 10480427 [PubMed - indexed for MEDLINE]

- 37. [Inherited interleukin 12 deficiency in a child with bacille Calmette-Guérin and Salmonella enteritidis disseminated infection.](#)  
Altare F, Lammas D, Revy P, Jouanguy E, Döffinger R, Lamhamedi S, Drysdale P, Scheel-Toellner D, Girdlestone J, Darbyshire P, Wadhwa M, Dockrell H, Salmon M, Fischer A, Durandy A, Casanova JL, Kumararatne DS.  
J Clin Invest. 1998 Dec 15;102(12):2035-40.  
PMID: 9854038 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
  
- 38. [Abnormal regulation of interferon-gamma, interleukin-12, and tumor necrosis factor-alpha in human interferon-gamma receptor 1 deficiency.](#)  
Holland SM, Dorman SE, Kwon A, Pitha-Rowe IF, Frucht DM, Gerstberger SM, Noel GJ, Vesterhus P, Brown MR, Fleisher TA.  
J Infect Dis. 1998 Oct;178(4):1095-104.  
PMID: 9806040 [PubMed - indexed for MEDLINE] [Free Article](#)
  
- 39. [Partial interferon-gamma receptor 1 deficiency in a child with tuberculoid bacillus Calmette-Guérin infection and a sibling with clinical tuberculosis.](#)  
Jouanguy E, Lamhamedi-Cherradi S, Altare F, Fondanèche MC, Tuerlinckx D, Blanche S, Emile JF, Gaillard JL, Schreiber R, Levin M, Fischer A, Hivroz C, Casanova JL.  
J Clin Invest. 1997 Dec 1;100(11):2658-64.  
PMID: 9389728 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
  
- 40. [Fatal disseminated Mycobacterium smegmatis infection in a child with inherited interferon gamma receptor deficiency.](#)  
Pierre-Audigier C, Jouanguy E, Lamhamedi S, Altare F, Raugier J, Vincent V, Canioni D, Emile JF, Fischer A, Blanche S, Gaillard JL, Casanova JL.  
Clin Infect Dis. 1997 May;24(5):982-4.  
PMID: 9142806 [PubMed - indexed for MEDLINE] [Free Article](#)
  
- 41. [Interferon-gamma-receptor deficiency in an infant with fatal bacille Calmette-Guérin infection.](#)  
Jouanguy E, Altare F, Lamhamedi S, Revy P, Emile JF, Newport M, Levin M, Blanche S, Seboun E, Fischer A, Casanova JL.  
N Engl J Med. 1996 Dec 26;335(26):1956-61. No abstract available.  
PMID: 8960475 [PubMed - indexed for MEDLINE] [Free Article](#)

## Results: 65

- [Clinical and Host Genetic Characteristics of Mendelian Susceptibility to Mycobacterial Diseases in Japan.](#)
  1. Hoshina T, Takada H, Sasaki-Mihara Y, Kusuhara K, Ohshima K, Okada S, Kobayashi M, Ohara O, Hara T. J Clin Immunol. 2011 Jan 8. [Epub ahead of print]  
PMID: 21221749 [PubMed - as supplied by publisher]
  
- [Severe axillary lymphadenitis after BCG vaccination: alert for primary immunodeficiencies.](#)
  2. Santos A, Dias A, Cordeiro A, Cordinhã C, Lemos S, Rocha G, Faria E. J Microbiol Immunol Infect. 2010 Dec;43(6):530-7.  
PMID: 21195982 [PubMed - in process]
  
- [Meningoencephalitis caused by varicella-zoster virus reactivation in a child with dominant partial interferon-gamma receptor-1 deficiency.](#)
  3. Roesler J, Hedrich C, Laass MW, Heyne K, Rösen-Wolff A. Pediatr Infect Dis J. 2011 Mar;30(3):265-6.  
PMID: 20842068 [PubMed - in process]
  
- [Multiple cutaneous squamous cell carcinomas in a patient with interferon gamma receptor 2 \(IFN gamma R2\) deficiency.](#)
  4. Toyoda H, Ido M, Nakanishi K, Nakano T, Kamiya H, Matsumine A, Uchida A, Mizutani H, de Beaucoudrey L, Vogt G, Boisson-Dupuis S, Bustamante J, Casanova JL, Komada Y. J Med Genet. 2010 Sep;47(9):631-4. Epub 2010 Jun 28.  
PMID: 20587411 [PubMed - indexed for MEDLINE]
  
- [Abnormalities in intracellular processing and expression of interferon-gamma receptor in adherent cells from lepromatous leprosy patients.](#)
  5. Guerrero-Velázquez C, Lopez-Roa RI, Delgado-Rizo V, Guillen-Vargas CM, Montoya-Buelna M, Fafutis-Morris M. J Interferon Cytokine Res. 2010 Feb;30(2):99-105.  
PMID: 20039824 [PubMed - indexed for MEDLINE]
  
- [Functional analysis of naturally occurring amino acid substitutions in human IFN-gammaR1.](#)
  6. van de Wetering D, de Paus RA, van Dissel JT, van de Vosse E. Mol Immunol. 2010 Feb;47(5):1023-30. Epub 2009 Dec 16.  
PMID: 20015550 [PubMed - indexed for MEDLINE]
  
- [A novel form of cell type-specific partial IFN-gammaR1 deficiency caused by a germ line mutation of the IFNGR1 initiation codon.](#)
  7. Kong XF, Vogt G, Chaggier A, Lamaze C, Bustamante J, Prando C, Fortin A, Puel A, Feinberg J, Zhang XX, Gonnord P, Pihkala-Saarinen UM, Arola M, Moilanen P, Abel L, Korppi M, Boisson-Dupuis S, Casanova JL. Hum Mol Genet. 2010 Feb 1;19(3):434-44. Epub 2009 Oct 31.  
PMID: 19880857 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Disseminated Mycobacterium scrofulaceum infection in a child with interferon-gamma receptor 1 deficiency.](#)
  8. Marazzi MG, Chaggier A, Defilippi AC, Pistoia V, Mangini S, Savioli C, Dell'Acqua A, Feinberg J, Tortoli E, Casanova JL. Int J Infect Dis. 2010 Feb;14(2):e167-70. Epub 2009 Oct 31.  
PMID: 19880337 [PubMed - indexed for MEDLINE]
  
- [Refractory disseminated coccidioidomycosis and mycobacteriosis in interferon-gamma receptor 1 deficiency.](#)
  9. Vinh DC, Masannat F, Dzioba RB, Galgiani JN, Holland SM. Clin Infect Dis. 2009 Sep 15;49(6):e62-5.  
PMID: 19681704 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Successful hematopoietic stem cell transplantation from an unrelated donor in a child with interferon gamma receptor deficiency.](#)
  10. Moilanen P, Korppi M, Hovi L, Chaggier A, Feinberg J, Kong XF, Boisson-Dupuis S, Arola M, Casanova JL, Saarinen-Pihkala UM. Pediatr Infect Dis J. 2009 Jul;28(7):658-60.  
PMID: 19451859 [PubMed - indexed for MEDLINE]
  
- [Osteomyelitis of the calcaneus due to atypical Mycobacterium.](#)
  11. Michelarakis J, Varouhaki C. Foot Ankle Surg. 2009;15(2):106-8. Epub 2008 Oct 31.  
PMID: 19410179 [PubMed - indexed for MEDLINE]



- 12. [Complementation of a pathogenic IFNGR2 misfolding mutation with modifiers of N-glycosylation.](#)  
Vogt G, Bustamante J, Chappier A, Feinberg J, Boisson Dupuis S, Picard C, Mahlaoui N, Gineau L, Alcaïs A, Lamaze C, Puck JM, de Saint Basile G, Khayat CD, Mikhael R, Casanova JL.  
J Exp Med. 2008 Aug 4;205(8):1729-37. Epub 2008 Jul 14.  
PMID: 18625743 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 13. [Influenza virus vaccination induces interleukin-12/23 receptor beta 1 \(IL-12/23R beta 1\)-independent production of gamma interferon \(IFN-gamma\) and humoral immunity in patients with genetic deficiencies in IL-12/23R beta 1 or IFN-gamma receptor 1.](#)  
de Boer T, van Dissel JT, Kuijpers TW, Rimmelzwaan GF, Kroon FP, Ottenhoff TH.  
Clin Vaccine Immunol. 2008 Aug;15(8):1171-5. Epub 2008 Jun 18.  
PMID: 18562567 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 14. [Extracellular-regulated kinase activation regulates replication of Mycobacterium avium intracellularly in primary human monocytes.](#)  
Shiratsuchi H, Ellner JJ, Basson MD.  
Cell Tissue Res. 2008 May;332(2):237-44. Epub 2008 Mar 12.  
PMID: 18335241 [PubMed - indexed for MEDLINE]
- 15. [Infections due to various atypical mycobacteria in a Norwegian multiplex family with dominant interferon-gamma receptor deficiency.](#)  
Glosli H, Stray-Pedersen A, Brun AC, Holtmon LW, Tønjum T, Chappier A, Casanova JL, Abrahamson TG.  
Clin Infect Dis. 2008 Feb 1;46(3):e23-7.  
PMID: 18171304 [PubMed - indexed for MEDLINE] **Free Article**
- 16. [Interferon gamma, IL-12, IL-12R and STAT-1 immunodeficiency diseases: disorders of the interface of innate and adaptive immunity.](#)  
Holland SM.  
Immunol Res. 2007;38(1-3):342-6.  
PMID: 17917041 [PubMed - indexed for MEDLINE]
- 17. [Loss of IFN gamma receptor is an independent prognostic factor in ovarian cancer.](#)  
Duncan TJ, Rolland P, Deen S, Scott IV, Liu DT, Spendlove I, Durrant LG.  
Clin Cancer Res. 2007 Jul 15;13(14):4139-45.  
PMID: 17634541 [PubMed - indexed for MEDLINE] **Free Article**
- 18. [IFN-gamma regulates Fas ligand expression in human CD4+ T lymphocytes and controls their anti-mycobacterial cytotoxic functions.](#)  
Boselli D, Losana G, Bernabei P, Bosisio D, Drysdale P, Kiessling R, Gaston JS, Lammas D, Casanova JL, Kumararatne DS, Novelli F.  
Eur J Immunol. 2007 Aug;37(8):2196-204.  
PMID: 17595676 [PubMed - indexed for MEDLINE]
- 19. [Two patients with complete defects in interferon gamma receptor-dependent signaling.](#)  
Noordzij JG, Hartwig NG, Verreck FA, De Bruin-Versteeg S, De Boer T, Van Dissel JT, De Groot R, Ottenhoff TH, Van Dongen JJ.  
J Clin Immunol. 2007 Sep;27(5):490-6. Epub 2007 May 21.  
PMID: 17514500 [PubMed - indexed for MEDLINE]
- 20. [The novel IFNGR1 mutation 774del4 produces a truncated form of interferon-gamma receptor 1 and has a dominant-negative effect on interferon-gamma signal transduction.](#)  
Okada S, Ishikawa N, Shirao K, Kawaguchi H, Tsumura M, Ohno Y, Yasunaga S, Ohtsubo M, Takihara Y, Kobayashi M.  
J Med Genet. 2007 Aug;44(8):485-91. Epub 2007 May 18. Erratum in: J Med Genet. 2007 Oct;44(10):628.  
PMID: 17513528 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 21. [Growth hormone secretion and immunological function of a male patient with a homozygous STAT5b mutation.](#)  
Walenkamp MJ, Vidarsdottir S, Pereira AM, Karperien M, van Doorn J, van Duyvenvoorde HA, Breuning MH, Roelfsema F, Kruithof MF, van Dissel J, Janssen R, Wit JM, Romijn JA.  
Eur J Endocrinol. 2007 Feb;156(2):155-65.  
PMID: 17287404 [PubMed - indexed for MEDLINE] **Free Article**
- 22. [\[Multifocal infection due to Mycobacterium intracellulare: first case of interferon gamma receptor partial dominant deficiency in tropical French territory\].](#)  
Muszlak M, Chappier A, Barry Harivelo R, Castella C, Crémades F, Goulois E, Laporte R, Casanova JL, Ranaivoarivony V, Hebert JC, Santiago J, Picard C.  
Arch Pediatr. 2007 Mar;14(3):270-2. Epub 2007 Jan 12. French.  
PMID: 17223023 [PubMed - indexed for MEDLINE]
- 23. [Adjunctive treatment of disseminated Mycobacterium avium complex infection with interferon alpha-2b in a patient with complete interferon-gamma receptor R1 deficiency.](#)  
Ward CM, Jyonouchi H, Kotenko SV, Smirnov SV, Patel R, Aguila H, McSherry G, Dashefsky B, Holland SM.  
Eur J Pediatr. 2007 Sep;166(9):981-5. Epub 2006 Nov 21.  
PMID: 17120031 [PubMed - indexed for MEDLINE]

- [Novel mutation in the interferon-gamma-receptor gene and susceptibility to mycobacterial infections.](#)
- 24. Storgaard M, Varming K, Herlin T, Obel N.  
Scand J Immunol. 2006 Aug;64(2):137-9.  
PMID: 16867158 [PubMed - indexed for MEDLINE]
- [Successful hematopoietic stem cell transplantation in a child with active disseminated Mycobacterium fortuitum infection and interferon-gamma receptor 1 deficiency.](#)
- 25. Chantrain CF, Bruwier A, Brichard B, Largent V, Chaggier A, Feinberg J, Casanova JL, Stalens JP, Vermynen C.  
Bone Marrow Transplant. 2006 Jul;38(1):75-6. Epub 2006 May 22. No abstract available.  
PMID: 16715106 [PubMed - indexed for MEDLINE]
- [Partial interferon-gamma receptor deficiency and non-tuberculous mycobacterial lung disease.](#)
- 26. Hwang JH, Koh WJ, Kim EJ, Kang EH, Suh GY, Chung MP, Kim H, Kwon OJ.  
Tuberculosis (Edinb). 2006 Sep;86(5):382-5. Epub 2006 May 8.  
PMID: 16682253 [PubMed - indexed for MEDLINE]
- [Disseminated nontuberculous mycobacterial infection in a child with interferon-gamma receptor 1 deficiency.](#)
- 27. Tsolia MN, Chaggier A, Taprantzi P, Servitoglou M, Tassios I, Spyridis N, Papageorgiou F, Santos OF, Casanova JL, Spyridis P.  
Eur J Pediatr. 2006 Jul;165(7):458-61. Epub 2006 Apr 7.  
PMID: 16602008 [PubMed - indexed for MEDLINE]
- [Gamma interferon is dispensable for neopterin production in vivo.](#)
- 28. Sghiri R, Feinberg J, Thabet F, Dellagi K, Boukadida J, Ben Abdelaziz A, Casanova JL, Barbouche MR.  
Clin Diagn Lab Immunol. 2005 Dec;12(12):1437-41.  
PMID: 16339068 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Disseminated Mycobacterium avium infection in a 20-year-old female with partial recessive IFN-gammaR1 deficiency.](#)
- 29. Remiszewski P, Roszkowska-Sliz B, Winek J, Chaggier A, Feinberg J, Langfort R, Bestry I, Augustynowicz-Kopeć E, Ptak J, Casanova JL, Rowińska-Zakrzewska E.  
Respiration. 2006;73(3):375-8. Epub 2005 Sep 29.  
PMID: 16195661 [PubMed - indexed for MEDLINE] **Free Article**
- [Inherited disorders of the IL-12-IFN-gamma axis in patients with disseminated BCG infection.](#)
- 30. Mansouri D, Adimi P, Mirsaeidi M, Mansouri N, Khalilzadeh S, Masjedi MR, Adimi P, Tabarsi P, Naderi M, Filipe-Santos O, Vogt G, de Beaucoudrey L, Bustamante J, Chaggier A, Feinberg J, Velayati AA, Casanova JL.  
Eur J Pediatr. 2005 Dec;164(12):753-7. Epub 2005 Aug 10.  
PMID: 16091917 [PubMed - indexed for MEDLINE]
- [Disseminated histoplasmosis in persons with interferon-gamma receptor 1 deficiency.](#)
- 31. Zerbe CS, Holland SM.  
Clin Infect Dis. 2005 Aug 15;41(4):e38-41. Epub 2005 Jul 15.  
PMID: 16028145 [PubMed - indexed for MEDLINE] **Free Article**
- [Partial interferon-gamma receptor deficiency and disseminated tuberculosis.](#)
- 32. Koh WJ, Kwon OJ, Hwang JH, Kim EJ.  
Int J Tuberc Lung Dis. 2005 Apr;9(4):469; author reply 469-70. No abstract available.  
PMID: 15830757 [PubMed - indexed for MEDLINE]
- [Clinical features of dominant and recessive interferon gamma receptor 1 deficiencies.](#)
- 33. Dorman SE, Picard C, Lammas D, Heyne K, van Dissel JT, Baretto R, Rosenzweig SD, Newport M, Levin M, Roesler J, Kumararatne D, Casanova JL, Holland SM.  
Lancet. 2004 Dec 11-17;364(9451):2113-21.  
PMID: 15589309 [PubMed - indexed for MEDLINE]
- [Hematopoietic stem cell transplantation for complete IFN-gamma receptor 1 deficiency: a multi-institutional survey.](#)
- 34. Roesler J, Horwitz ME, Picard C, Bordigoni P, Davies G, Koscielniak E, Levin M, Veys P, Reuter U, Schulz A, Thiede C, Klingebiel T, Fischer A, Holland SM, Casanova JL, Friedrich W.  
J Pediatr. 2004 Dec;145(6):806-12.  
PMID: 15580206 [PubMed - indexed for MEDLINE]
- [Rac1 contributes to maximal activation of STAT1 and STAT3 in IFN-gamma-stimulated rat astrocytes.](#)
- 35. Park EJ, Ji KA, Jeon SB, Choi WH, Han IO, You HJ, Kim JH, Jou I, Joe EH.  
J Immunol. 2004 Nov 1;173(9):5697-703.  
PMID: 15494521 [PubMed - indexed for MEDLINE] **Free Article**
- [A novel mutation in IFN-gamma receptor 2 with dominant negative activity: biological consequences of homozygous and heterozygous states.](#)
- 36. Rosenzweig SD, Dorman SE, Uzel G, Shaw S, Scurlock A, Brown MR, Buckley RH, Holland SM.  
J Immunol. 2004 Sep 15;173(6):4000-8.  
PMID: 15356149 [PubMed - indexed for MEDLINE] **Free Article**



- [HHV-8-associated Kaposi sarcoma in a child with IFN-gammaR1 deficiency.](#)
- 37. Camcioglu Y, Picard C, Lacoste V, Dupuis S, Akçakaya N, Cokura H, Kaner G, Demirkesen C, Plancoulaine S, Emile JF, Gessain A, Casanova JL.  
J Pediatr. 2004 Apr;144(4):519-23.  
PMID: 15069403 [PubMed - indexed for MEDLINE]
- [Persistent Mycobacterium avium infection following nonmyeloablative allogeneic peripheral blood stem cell transplantation for interferon-gamma receptor-1 deficiency.](#)
- 38. Horwitz ME, Uzel G, Linton GF, Miller JA, Brown MR, Malech HL, Holland SM.  
Blood. 2003 Oct 1;102(7):2692-4. Epub 2003 Jun 12.  
PMID: 12805054 [PubMed - indexed for MEDLINE] **Free Article**
- [Disseminated Mycobacterium peregrinum infection in a child with complete interferon-gamma receptor-1 deficiency.](#)
- 39. Koscielniak E, de Boer T, Dupuis S, Naumann L, Casanova JL, Ottenhoff TH.  
Pediatr Infect Dis J. 2003 Apr;22(4):378-80. No abstract available.  
PMID: 12712974 [PubMed - indexed for MEDLINE]
- [Severe Mycobacterium bovis BCG infections in a large series of novel IL-12 receptor beta1 deficient patients and evidence for the existence of partial IL-12 receptor beta1 deficiency.](#)
- 40. Lichtenauer-Kaligis EG, de Boer T, Verreck FA, van Voorden S, Hoeve MA, van de Vosse E, Ersoy F, Tezcan I, van Dissel JT, Sanal O, Ottenhoff TH.  
Eur J Immunol. 2003 Jan;33(1):59-69.  
PMID: 12594833 [PubMed - indexed for MEDLINE]
- [Correction of complete interferon-gamma receptor 1 deficiency by bone marrow transplantation.](#)
- 41. Reuter U, Roesler J, Thiede C, Schulz A, Classen CF, Oelschlagel U, Debatin KM, Friedrich W.  
Blood. 2002 Dec 1;100(12):4234-5. Epub 2002 Aug 8.  
PMID: 12393576 [PubMed - indexed for MEDLINE] **Free Article**
- [\[Adverse events following immunization with BCG vaccine in Poland 1994-2000\].](#)
- 42. Szczuka I.  
Przegl Epidemiol. 2002;56(2):205-16. Polish.  
PMID: 12371352 [PubMed - indexed for MEDLINE]
- [Fever and leg pain in a 42-month-old.](#)
- 43. Waibel KH, Regis DP, Uzel G, Rosenzweig SD, Holland SM.  
Ann Allergy Asthma Immunol. 2002 Sep;89(3):239-43. No abstract available.  
PMID: 12269642 [PubMed - indexed for MEDLINE]
- [Divergent role for TNF-alpha in IFN-gamma-induced killing of Toxoplasma gondii and Salmonella typhimurium contributes to selective susceptibility of patients with partial IFN-gamma receptor 1 deficiency.](#)
- 44. Janssen R, Van Wengen A, Verhard E, De Boer T, Zomerdijk T, Ottenhoff TH, Van Dissel JT.  
J Immunol. 2002 Oct 1;169(7):3900-7.  
PMID: 12244188 [PubMed - indexed for MEDLINE] **Free Article**
- [Genetic basis of patients with bacille Calmette-Guérin osteomyelitis in Japan: identification of dominant partial interferon-gamma receptor 1 deficiency as a predominant type.](#)
- 45. Sasaki Y, Nomura A, Kusuhara K, Takada H, Ahmed S, Obinata K, Hamada K, Okimoto Y, Hara T.  
J Infect Dis. 2002 Mar 1;185(5):706-9. Epub 2002 Feb 14.  
PMID: 11865431 [PubMed - indexed for MEDLINE] **Free Article**
- [Requirement for both IL-12 and IFN-gamma signaling pathways in optimal IFN-gamma production by human T cells.](#)
- 46. Losana G, Rigamonti L, Borghi I, Assenzio B, Ariotti S, Jouanguy E, Altare F, Forni G, Casanova JL, Novelli F.  
Eur J Immunol. 2002 Mar;32(3):693-700.  
PMID: 11857344 [PubMed - indexed for MEDLINE]
- [Interferon-gamma receptor deficiency mimicking Langerhans' cell histiocytosis.](#)
- 47. Edgar JD, Smyth AE, Pritchard J, Lammass D, Jouanguy E, Hague R, Novelli V, Dempsey S, Sweeney L, Taggart AJ, O'hara D, Casanova JL, Kumararatne DS.  
J Pediatr. 2001 Oct;139(4):600-3.  
PMID: 11598613 [PubMed - indexed for MEDLINE]
- [Multifocal osteomyelitis caused by nontuberculous mycobacteria in patients with a genetic defect of the interferon-gamma receptor.](#)
- 48. Arend SM, Janssen R, Gosen JJ, Waanders H, de Boer T, Ottenhoff TH, van Dissel JT.  
Neth J Med. 2001 Sep;59(3):140-51.  
PMID: 11583830 [PubMed - indexed for MEDLINE]
- [Failure of MHC class II expression in neonatal alveolar macrophages: potential role of class II transactivator.](#)
- 49. Lee PT, Holt PG, McWilliam AS.  
Eur J Immunol. 2001 Aug;31(8):2347-56.  
PMID: 11477547 [PubMed - indexed for MEDLINE]

- [High levels of interferon gamma in the plasma of children with complete interferon gamma receptor deficiency.](#)  
50. Fieschi C, Dupuis S, Picard C, Smith CI, Holland SM, Casanova JL.  
Pediatrics. 2001 Apr;107(4):E48.  
PMID: 11335769 [PubMed - indexed for MEDLINE]
- [A point mutation in a domain of gamma interferon receptor 1 provokes severe immunodeficiency.](#)  
51. Allende LM, López-Goyanes A, Paz-Artal E, Corell A, García-Pérez MA, Varela P, Scarpellini A, Negreira S, Palenque E, Arnaiz-Villena A.  
Clin Diagn Lab Immunol. 2001 Jan;8(1):133-7.  
PMID: 11139207 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Respiratory syncytial virus infection in patients with phagocyte defects.](#)  
52. Uzel G, Premkumar A, Malech HL, Holland SM.  
Pediatrics. 2000 Oct;106(4):835-7.  
PMID: 11015530 [PubMed - indexed for MEDLINE]
- [Partial interferon-gamma receptor signaling chain deficiency in a patient with bacille Calmette-Guérin and Mycobacterium abscessus infection.](#)  
53. Döffinger R, Jouanguy E, Dupuis S, Fondanèche MC, Stephan JL, Emile JF, Lamhamedi-Cherradi S, Altare F, Pallier A, Barcenas-Morales G, Meinel E, Krause C, Pestka S, Schreiber RD, Novelli F, Casanova JL.  
J Infect Dis. 2000 Jan;181(1):379-84.  
PMID: 10608793 [PubMed - indexed for MEDLINE] **Free Article**
- [Surface expression of the IFN-gamma R2 chain is regulated by intracellular trafficking in human T lymphocytes.](#)  
54. Rigamonti L, Ariotti S, Losana G, Gradini R, Russo MA, Jouanguy E, Casanova JL, Forni G, Novelli F.  
J Immunol. 2000 Jan 1;164(1):201-7.  
PMID: 10605012 [PubMed - indexed for MEDLINE] **Free Article**
- [Viral infections in interferon-gamma receptor deficiency.](#)  
55. Dorman SE, Uzel G, Roesler J, Bradley JS, Bastian J, Billman G, King S, Filie A, Schermerhorn J, Holland SM.  
J Pediatr. 1999 Nov;135(5):640-3.  
PMID: 10547254 [PubMed - indexed for MEDLINE]
- [Interferon-gamma receptor deficiency: An expanding clinical phenotype?](#)  
56. Casanova JL, Ochs H.  
J Pediatr. 1999 Nov;135(5):543-5. No abstract available.  
PMID: 10547240 [PubMed - indexed for MEDLINE]
- [\[Infections caused by BCG and atypical mycobacteria in children: a new group of immune deficiencies\].](#)  
57. Casanova JL.  
Arch Pediatr. 1999 Feb;6(2):139-40. French. No abstract available.  
PMID: 10079880 [PubMed - indexed for MEDLINE]
- [A selective defect of IFN-gamma- but not of IFN-alpha-induced JAK/STAT pathway in a subset of U937 clones prevents the antiretroviral effect of IFN-gamma against HIV-1.](#)  
58. Bovolenta C, Lorini AL, Mantelli B, Camorali L, Novelli F, Biswas P, Poli G.  
J Immunol. 1999 Jan 1;162(1):323-30.  
PMID: 9886402 [PubMed - indexed for MEDLINE] **Free Article**
- [Inherited interleukin 12 deficiency in a child with bacille Calmette-Guérin and Salmonella enteritidis disseminated infection.](#)  
59. Altare F, Lammas D, Revy P, Jouanguy E, Döffinger R, Lamhamedi S, Drysdale P, Scheel-Toellner D, Girdlestone J, Darbyshire P, Wadhwa M, Dockrell H, Salmon M, Fischer A, Durandy A, Casanova JL, Kumararatne DS.  
J Clin Invest. 1998 Dec 15;102(12):2035-40.  
PMID: 9854038 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Abnormal regulation of interferon-gamma, interleukin-12, and tumor necrosis factor-alpha in human interferon-gamma receptor 1 deficiency.](#)  
60. Holland SM, Dorman SE, Kwon A, Pitha-Rowe IF, Frucht DM, Gerstberger SM, Noel GJ, Vesterhus P, Brown MR, Fleisher TA.  
J Infect Dis. 1998 Oct;178(4):1095-104.  
PMID: 9806040 [PubMed - indexed for MEDLINE] **Free Article**
- [Severe mycobacterial and Salmonella infections in interleukin-12 receptor-deficient patients.](#)  
61. de Jong R, Altare F, Haagen IA, Elferink DG, Boer T, van Breda Vriesman PJ, Kabel PJ, Draaisma JM, van Dissel JT, Kroon FP, Casanova JL, Ottenhoff TH.  
Science. 1998 May 29;280(5368):1435-8.  
PMID: 9603733 [PubMed - indexed for MEDLINE] **Free Article**

- 62. [Partial interferon-gamma receptor 1 deficiency in a child with tuberculoid bacillus Calmette-Guérin infection and a sibling with clinical tuberculosis.](#)  
Jouanguy E, Lamhamedi-Cherradi S, Altare F, Fondanèche MC, Tuerlinckx D, Blanche S, Emile JF, Gaillard JL, Schreiber R, Levin M, Fischer A, Hivroz C, Casanova JL.  
J Clin Invest. 1997 Dec 1;100(11):2658-64.  
PMID: 9389728 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
  
- 63. [Fatal disseminated Mycobacterium smegmatis infection in a child with inherited interferon gamma receptor deficiency.](#)  
Pierre-Audigier C, Jouanguy E, Lamhamedi S, Altare F, Raugier J, Vincent V, Canioni D, Emile JF, Fischer A, Blanche S, Gaillard JL, Casanova JL.  
Clin Infect Dis. 1997 May;24(5):982-4.  
PMID: 9142806 [PubMed - indexed for MEDLINE] [Free Article](#)
  
- 64. [Interferon-gamma-receptor deficiency in an infant with fatal bacille Calmette-Guérin infection.](#)  
Jouanguy E, Altare F, Lamhamedi S, Revy P, Emile JF, Newport M, Levin M, Blanche S, Seboun E, Fischer A, Casanova JL.  
N Engl J Med. 1996 Dec 26;335(26):1956-61. No abstract available.  
PMID: 8960475 [PubMed - indexed for MEDLINE] [Free Article](#)
  
- 65. [Intraepidermal psoriatic cytokine network involves gamma interferon, transforming growth factor-alpha, and their cell surface receptors: dysregulation rather than deficiency.](#)  
Nickoloff BJ, Mitra RS.  
J Invest Dermatol. 1992 Dec;99(6):882-3. No abstract available.  
PMID: 1469304 [PubMed - indexed for MEDLINE]

## PubMed

Search: STAT1 deficiency and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (9)

[Manage Filters](#)

Display Settings: Summary, 20 per page, Sorted by Recently Added

## Are you looking for gene information?

Source: Gene Database

[See 567 articles](#) about **STAT1** gene function**STAT1** signal transducer and activator of transcription 1, 91kDa [Homo sapiens]stat1 in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 21 Gene records](#)

## Results: 9

- [Mycobacterium bovis BCG-itis and cervical lymphadenitis due to Salmonella enteritidis in a patient with complete interleukin-12/-23 receptor beta1 deficiency.](#)
1. van de Vosse E, Ottenhoff TH, de Paus RA, Verhard EM, de Boer T, van Dissel JT, Kuijpers TW.  
Infection. 2010 Apr;38(2):128-30. Epub 2010 Mar 5.  
PMID: 20213287 [PubMed - indexed for MEDLINE]
- [The novel IFNGR1 mutation 774del4 produces a truncated form of interferon-gamma receptor 1 and has a dominant-negative effect on interferon-gamma signal transduction.](#)
2. Okada S, Ishikawa N, Shirao K, Kawaguchi H, Tsumura M, Ohno Y, Yasunaga S, Ohtsubo M, Takihara Y, Kobayashi M.  
J Med Genet. 2007 Aug;44(8):485-91. Epub 2007 May 18. Erratum in: J Med Genet. 2007 Oct;44(10):628.  
PMID: 17513528 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [Adjunctive treatment of disseminated Mycobacterium avium complex infection with interferon alpha-2b in a patient with complete interferon-gamma receptor R1 deficiency.](#)
3. Ward CM, Jyonouchi H, Kotenko SV, Smirnov SV, Patel R, Aguila H, McSherry G, Dashefsky B, Holland SM.  
Eur J Pediatr. 2007 Sep;166(9):981-5. Epub 2006 Nov 21.  
PMID: 17120031 [PubMed - indexed for MEDLINE]
- [Novel STAT1 alleles in otherwise healthy patients with mycobacterial disease.](#)
4. Chaggier A, Boisson-Dupuis S, Jouanguy E, Vogt G, Feinberg J, Prochnicka-Chalufour A, Casrouge A, Yang K, Soudais C, Fieschi C, Santos OF, Bustamante J, Picard C, de Beaucoudrey L, Emile JF, Arkwright PD, Schreiber RD, Rolinck-Werninghaus C, Rösen-Wolff A, Magdorf K, Roesler J, Casanova JL.  
PLoS Genet. 2006 Aug 18;2(8):e131.  
PMID: 16934001 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [Human complete Stat-1 deficiency is associated with defective type I and II IFN responses in vitro but immunity to some low virulence viruses in vivo.](#)
5. Chaggier A, Wynn RF, Jouanguy E, Filipe-Santos O, Zhang S, Feinberg J, Hawkins K, Casanova JL, Arkwright PD.  
J Immunol. 2006 Apr 15;176(8):5078-83.  
PMID: 16585605 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Presentation of interleukin-12/-23 receptor beta1 deficiency with various clinical symptoms of Salmonella infections.](#)
6. Sanal O, Turul T, De Boer T, Van de Vosse E, Yalcin I, Tezcan I, Sun C, Memis L, Ottenhoff TH, Ersoy F.  
J Clin Immunol. 2006 Jan;26(1):1-6.  
PMID: 16418797 [PubMed - indexed for MEDLINE]
- [Impaired response to interferon-alpha/beta and lethal viral disease in human STAT1 deficiency.](#)
7. Dupuis S, Jouanguy E, Al-Hajjar S, Fieschi C, Al-Mohsen IZ, Al-Jumaah S, Yang K, Chaggier A, Eidenschenk C, Eid P, Al Ghoniaim A, Tufenkeji H, Frayha H, Al-Gazlan S, Al-Rayes H, Schreiber RD, Gresser I, Casanova JL.  
Nat Genet. 2003 Mar;33(3):388-91. Epub 2003 Feb 18.  
PMID: 12590259 [PubMed - indexed for MEDLINE]
- [Impairment of STAT activation by IL-12 in a patient with atypical mycobacterial and staphylococcal infections.](#)
8. Gollob JA, Veenstra KG, Jyonouchi H, Kelly AM, Ferrieri P, Panka DJ, Altare F, Fieschi C, Casanova JL, Frank DA, Mier JW.  
J Immunol. 2000 Oct 1;165(7):4120-6.  
PMID: 11034424 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Partial interferon-gamma receptor signaling chain deficiency in a patient with bacille Calmette-Guérin and Mycobacterium abscessus infection.](#)
9. Döffinger R, Jouanguy E, Dupuis S, Fondanèche MC, Stephan JL, Emile JF, Lamhamedi-Cherradi S, Altare F, Pallier A, Barcenas-Morales G, Meinel E, Krause C, Pestka S, Schreiber RD, Novelli F, Casanova JL.  
J Infect Dis. 2000 Jan;181(1):379-84.  
PMID: 10608793 [PubMed - indexed for MEDLINE] [Free Article](#)

## Are you looking for gene information?

Source: Gene Database

[See 567 articles](#) about **STAT1** gene function**STAT1** signal transducer and activator of transcription 1, 91kDa [Homo sapiens]stat1 in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 21 Gene records](#)

## Results: 13

- [Immunosuppressive CD14+HLA-DR\(low\)- monocytes in B-cell non-Hodgkin lymphoma.](#)  
 1. Lin Y, Gustafson MP, Bulur PA, Gastineau DA, Witzig TE, Dietz AB.  
 Blood. 2011 Jan 20;117(3):872-81. Epub 2010 Nov 9.  
 PMID: 21063024 [PubMed - in process]
- [A novel form of human STAT1 deficiency impairing early but not late responses to interferons.](#)  
 2. Kong XF, Ciancanelli M, Al-Hajjar S, Alsina L, Zumwalt T, Bustamante J, Feinberg J, Audry M, Prando C, Bryant V, Kreins A, Bogunovic D, Halwani R, Zhang XX, Abel L, Chaussabel D, Al-Muhsen S, Casanova JL, Boisson-Dupuis S.  
 Blood. 2010 Dec 23;116(26):5895-906. Epub 2010 Sep 14.  
 PMID: 20841510 [PubMed - in process]
- [Mycobacterium bovis BCG-itis and cervical lymphadenitis due to Salmonella enteritidis in a patient with complete interleukin-12/-23 receptor beta1 deficiency.](#)  
 3. van de Vosse E, Ottenhoff TH, de Paus RA, Verhard EM, de Boer T, van Dissel JT, Kuijpers TW.  
 Infection. 2010 Apr;38(2):128-30. Epub 2010 Mar 5.  
 PMID: 20213287 [PubMed - indexed for MEDLINE]
- [Modeling the functional heterogeneity of leukemia stem cells: role of STAT5 in leukemia stem cell self-renewal.](#)  
 4. Heuser M, Sly LM, Argiropoulos B, Kuchenbauer F, Lai C, Weng A, Leung M, Lin G, Brookes C, Fung S, Valk PJ, Delwel R, Löwenberg B, Krystal G, Humphries RK.  
 Blood. 2009 Nov 5;114(19):3983-93. Epub 2009 Aug 10.  
 PMID: 19667399 [PubMed - indexed for MEDLINE] **Free Article**
- [A partial form of recessive STAT1 deficiency in humans.](#)  
 5. Chapgier A, Kong XF, Boisson-Dupuis S, Jouanguy E, Averbuch D, Feinberg J, Zhang SY, Bustamante J, Vogt G, Lejeune J, Mayola E, de Beaucoudrey L, Abel L, Engelhard D, Casanova JL.  
 J Clin Invest. 2009 Jun;119(6):1502-14. doi: 10.1172/JCI37083. Epub 2009 May 11.  
 PMID: 19436109 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Interferon autoantibodies associated with AIRE deficiency decrease the expression of IFN-stimulated genes.](#)  
 6. Kisand K, Link M, Wolff AS, Meager A, Tserel L, Org T, Murumägi A, Uibo R, Willcox N, Trebusak Podkrajsek K, Battelino T, Lobell A, Kämpe O, Lima K, Meloni A, Ergun-Longmire B, Maclaren NK, Perheentupa J, Krohn KJ, Scott HS, Husebye ES, Peterson P.  
 Blood. 2008 Oct 1;112(7):2657-66. Epub 2008 Jul 7.  
 PMID: 18606876 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [The novel IFNGR1 mutation 774del4 produces a truncated form of interferon-gamma receptor 1 and has a dominant-negative effect on interferon-gamma signal transduction.](#)  
 7. Okada S, Ishikawa N, Shirao K, Kawaguchi H, Tsumura M, Ohno Y, Yasunaga S, Ohtsubo M, Takihara Y, Kobayashi M.  
 J Med Genet. 2007 Aug;44(8):485-91. Epub 2007 May 18. Erratum in: J Med Genet. 2007 Oct;44(10):628.  
 PMID: 17513528 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Adjunctive treatment of disseminated Mycobacterium avium complex infection with interferon alpha-2b in a patient with complete interferon-gamma receptor R1 deficiency.](#)  
 8. Ward CM, Jyonouchi H, Kottenko SV, Smirnov SV, Patel R, Aguila H, McSherry G, Dashefsky B, Holland SM.  
 Eur J Pediatr. 2007 Sep;166(9):981-5. Epub 2006 Nov 21.  
 PMID: 17120031 [PubMed - indexed for MEDLINE]
- [Novel STAT1 alleles in otherwise healthy patients with mycobacterial disease.](#)  
 9. Chapgier A, Boisson-Dupuis S, Jouanguy E, Vogt G, Feinberg J, Prochnicka-Chaloufour A, Casrouge A, Yang K, Soudais C, Fieschi C, Santos OF, Bustamante J, Picard C, de Beaucoudrey L, Emile JF, Arkwright PD, Schreiber RD, Rolinck-Werninghaus C, Rösen-Wolff A, Magdorf K, Roesler J, Casanova JL.  
 PLoS Genet. 2006 Aug 18;2(8):e131.  
 PMID: 16934001 [PubMed - indexed for MEDLINE] **Free PMC Article**

- 10.  [Human complete Stat-1 deficiency is associated with defective type I and II IFN responses in vitro but immunity to some low virulence viruses in vivo.](#)  
Chapgier A, Wynn RF, Jouanguy E, Filipe-Santos O, Zhang S, Feinberg J, Hawkins K, Casanova JL, Arkwright PD.  
J Immunol. 2006 Apr 15;176(8):5078-83.  
PMID: 16585605 [PubMed - indexed for MEDLINE] **Free Article**
  
- 11.  [Presentation of interleukin-12/-23 receptor beta1 deficiency with various clinical symptoms of Salmonella infections.](#)  
Sanal O, Turul T, De Boer T, Van de Vosse E, Yalcin I, Tezcan I, Sun C, Memis L, Ottenhoff TH, Ersoy F.  
J Clin Immunol. 2006 Jan;26(1):1-6.  
PMID: 16418797 [PubMed - indexed for MEDLINE]
  
- 12.  [Impairment of STAT activation by IL-12 in a patient with atypical mycobacterial and staphylococcal infections.](#)  
Gollob JA, Veenstra KG, Jyonouchi H, Kelly AM, Ferrieri P, Panka DJ, Altare F, Fieschi C, Casanova JL, Frank DA, Mier JW.  
J Immunol. 2000 Oct 1;165(7):4120-6.  
PMID: 11034424 [PubMed - indexed for MEDLINE] **Free Article**
  
- 13.  [Partial interferon-gamma receptor signaling chain deficiency in a patient with bacille Calmette-Guérin and Mycobacterium abscessus infection.](#)  
Döffinger R, Jouanguy E, Dupuis S, Fondanèche MC, Stephan JL, Emile JF, Lamhamedi-Cherradi S, Altare F, Pallier A, Barcenas-Morales G, Meinl E, Krause C, Pestka S, Schreiber RD, Novelli F, Casanova JL.  
J Infect Dis. 2000 Jan;181(1):379-84.  
PMID: 10608793 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: autosomal dominant hyper ige and case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (8)

[Manage Filters](#)

Display Settings: Summary, 20 per page, Sorted by Recently Added

## Results: 8

- [Successful long-term correction of autosomal recessive hyper-IgE syndrome due to DOCK8 deficiency by hematopoietic stem cell transplantation.](#)
  1. Bittner TC, Pannicke U, Renner ED, Notheis G, Hoffmann F, Belohradsky BH, Wintergerst U, Hauser M, Klein B, Schwarz K, Schmid I, Albert MH.  
Klin Padiatr. 2010 Nov;222(6):351-5. Epub 2010 Nov 5.  
PMID: 21058221 [PubMed - indexed for MEDLINE]
  
- [Diverticulitis in a young man with hyper-IgE syndrome.](#)
  2. Stover DG, Freeman AF, Wright PW, Hummell DS, Ness RM.  
South Med J. 2010 Dec;103(12):1261-3.  
PMID: 21037522 [PubMed - indexed for MEDLINE]
  
- [Successful long-term immunologic reconstitution by allogeneic hematopoietic stem cell transplantation cures patients with autosomal dominant hyper-IgE syndrome.](#)
  3. Goussetis E, Peristeri I, Kitra V, Traeger-Synodinos J, Theodosaki M, Psarra K, Kanariou M, Tzortzatos-Stathopoulou F, Petrakou E, Fylaktou I, Kanavakis E, Graphakos S.  
J Allergy Clin Immunol. 2010 Aug;126(2):392-4. Epub 2010 Jul 2. No abstract available.  
PMID: 20584545 [PubMed - indexed for MEDLINE]
  
- [Hyper-IgE syndrome with STAT3 mutation: a case report in Mainland China.](#)
  4. Xie L, Hu X, Li Y, Zhang W, Chen L.  
Clin Dev Immunol. 2010;2010:289873. Epub 2010 May 17.  
PMID: 20490271 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [A novel mutation in the signal transducer and activator of transcription 3 \(STAT3\) gene. in hyper-IgE syndrome.](#)
  5. Papanastasiou AD, Mantagos S, Papanastasiou DA, Zarkadis IK.  
Mol Immunol. 2010 Apr;47(7-8):1629-34. Epub 2010 Feb 9.  
PMID: 20149460 [PubMed - indexed for MEDLINE]
  
- [\[Hyper-IgE syndrome with mutation in STAT3 gene - case report and literature review\].](#)
  6. Heropolitańska-Pliszka E, Pietrucha B, Mikołuc B, Bernatowska E.  
Med Wieku Rozwoj. 2009 Jan-Mar;13(1):19-25. Review. Polish.  
PMID: 19648655 [PubMed - indexed for MEDLINE]
  
- [Analphoid marker chromosome in a patient with hyper-IgE syndrome, autism, and mild mental retardation.](#)
  7. Grimbacher B, Dutra AS, Holland SM, Fischer RE, Pao M, Gallin JI, Puck JM.  
Genet Med. 1999 Jul-Aug;1(5):213-8.  
PMID: 11256675 [PubMed - indexed for MEDLINE]
  
- [Combined neutrophil and T-cell deficiency: initial report of a kindred with features of the hyper-IgE syndrome and chronic granulomatous disease.](#)
  8. Robinson MF, McGregor R, Collins R, Cheung K.  
Am J Med. 1982 Jul;73(1):63-70.  
PMID: 6979928 [PubMed - indexed for MEDLINE]



## Results: 40

- [Clinical manifestations of hyper IgE syndromes.](#)
  1. Freeman AF, Holland SM.  
Dis Markers. 2010;29(3-4):123-30. Review.  
PMID: 21178271 [PubMed - indexed for MEDLINE]
  
- [Destructive pulmonary staphylococcal infection in a boy with hyper-IgE syndrome: a novel mutation in the signal transducer and activator of transcription 3 \(STAT3\) gene \(p.Y657S\).](#)
  2. Liu JY, Li Q, Chen TT, Guo X, Ge J, Yuan LX.  
Eur J Pediatr. 2010 Nov 24. [Epub ahead of print]  
PMID: 21107604 [PubMed - as supplied by publisher]
  
- [Successful long-term correction of autosomal recessive hyper-IgE syndrome due to DOCK8 deficiency by hematopoietic stem cell transplantation.](#)
  3. Bittner TC, Pannicke U, Renner ED, Notheis G, Hoffmann F, Belohradsky BH, Wintergerst U, Hauser M, Klein B, Schwarz K, Schmid I, Albert MH.  
Klin Padiatr. 2010 Nov;222(6):351-5. Epub 2010 Nov 5.  
PMID: 21058221 [PubMed - indexed for MEDLINE]
  
- [Diverticulitis in a young man with hyper-IgE syndrome.](#)
  4. Stover DG, Freeman AF, Wright PW, Hummell DS, Ness RM.  
South Med J. 2010 Dec;103(12):1261-3.  
PMID: 21037522 [PubMed - indexed for MEDLINE]
  
- [Diffuse large B cell lymphoma in hyper-IgE syndrome due to STAT3 mutation.](#)
  5. Kumánovics A, Perkins SL, Gilbert H, Cessna MH, Augustine NH, Hill HR.  
J Clin Immunol. 2010 Nov;30(6):886-93. Epub 2010 Sep 22.  
PMID: 20859667 [PubMed - in process]
  
- [Diagnostic approach to the hyper-IgE syndromes: immunologic and clinical key findings to differentiate hyper-IgE syndromes from atopic dermatitis.](#)
  6. Schimke LF, Sawalle-Belohradsky J, Roesler J, Wollenberg A, Rack A, Borte M, Rieber N, Cremer R, Maass E, Dopfer R, Reichenbach J, Wahn V, Hoenig M, Jansson AF, Roesen-Wolff A, Schaub B, Seger R, Hill HR, Ochs HD, Torgerson TR, Belohradsky BH, Renner ED.  
J Allergy Clin Immunol. 2010 Sep;126(3):611-7.e1. Erratum in: J Allergy Clin Immunol. 2010 Nov;126(5):1015.  
PMID: 20816194 [PubMed - indexed for MEDLINE]
  
- [Inborn errors of mucocutaneous immunity to Candida albicans in humans: a role for IL-17 cytokines?](#)
  7. Puel A, Picard C, Cypowj S, Lilic D, Abel L, Casanova JL.  
Curr Opin Immunol. 2010 Aug;22(4):467-74. Epub 2010 Jul 30. Review.  
PMID: 20674321 [PubMed - indexed for MEDLINE]
  
- [Successful long-term immunologic reconstitution by allogeneic hematopoietic stem cell transplantation cures patients with autosomal dominant hyper-IgE syndrome.](#)
  8. Goussetis E, Peristeri I, Kitra V, Traeger-Synodinos J, Theodosaki M, Psarra K, Kanariou M, Tzortzatos-Stathopoulou F, Petrakou E, Fylaktou I, Kanavakis E, Graphakos S.  
J Allergy Clin Immunol. 2010 Aug;126(2):392-4. Epub 2010 Jul 2. No abstract available.  
PMID: 20584545 [PubMed - indexed for MEDLINE]
  
- [Th17 cells, Job's syndrome and HIV: opportunities for bacterial and fungal infections.](#)
  9. Milner JD, Sandler NG, Douek DC.  
Curr Opin HIV AIDS. 2010 Mar;5(2):179-83. Review.  
PMID: 20543597 [PubMed - indexed for MEDLINE]
  
- [Hyper-IgE syndrome with STAT3 mutation: a case report in Mainland China.](#)
  10. Xie L, Hu X, Li Y, Zhang W, Chen L.  
Clin Dev Immunol. 2010;2010:289873. Epub 2010 May 17.  
PMID: 20490271 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Invasive fungal disease in autosomal-dominant hyper-IgE syndrome.](#)
  11. Vinh DC, Sugui JA, Hsu AP, Freeman AF, Holland SM.  
J Allergy Clin Immunol. 2010 Jun;125(6):1389-90. Epub 2010 Apr 14. No abstract available.  
PMID: 20392475 [PubMed - indexed for MEDLINE]



- 12. [Autosomal Dominant Hyper IgE Syndrome.](#)  
Freeman AF, Davis J, Hsu AP, Holland SM, Puck JM.  
In: Pagon RA, Bird TD, Dolan CR, Stephens K, editors. GeneReviews [Internet]. Seattle (WA): University of Washington, Seattle; 1993-. 2010 Feb 23.  
PMID: 20301786 [PubMed] **Books & Documents**
- 13. [\[Recent advances in the pathogenesis of hyper IgE syndrome\].](#)  
Takada H, Minegishi Y.  
Nihon Rinsho Meneki Gakkai Kaishi. 2010;33(1):15-9. Review. Japanese.  
PMID: 20190505 [PubMed - indexed for MEDLINE] **Free Article**
- 14. [A novel mutation in the signal transducer and activator of transcription 3 \(STAT3\) gene, in hyper-IgE syndrome.](#)  
Papanastasiou AD, Mantagos S, Papanastasiou DA, Zarkadis IK.  
Mol Immunol. 2010 Apr;47(7-8):1629-34. Epub 2010 Feb 9.  
PMID: 20149460 [PubMed - indexed for MEDLINE]
- 15. [Reduced expression of chemoattractant receptors by polymorphonuclear leukocytes in Hyper IgE Syndrome patients.](#)  
Mintz R, Garty BZ, Meshel T, Marcus N, Katanov C, Cohen-Hillel E, Ben-Baruch A.  
Immunol Lett. 2010 May 4;130(1-2):97-106. Epub 2009 Dec 11.  
PMID: 20005258 [PubMed - indexed for MEDLINE]
- 16. [Large deletions and point mutations involving the dedicator of cytokinesis 8 \(DOCK8\) in the autosomal-recessive form of hyper-IgE syndrome.](#)  
Engelhardt KR, McGhee S, Winkler S, Sassi A, Woellner C, Lopez-Herrera G, Chen A, Kim HS, Lloret MG, Schulze I, Ehl S, Thiel J, Pfeifer D, Veecken H, Niehues T, Siepermann K, Weinspach S, Reisli I, Keles S, Genel F, Kutukculer N, Camcioglu Y, Somer A, Karakoc-Aydiner E, Barlan I, Gennery A, Metin A, Degerliyurt A, Pietrogrande MC, Yeganeh M, Baz Z, Al-Tamemi S, Klein C, Puck JM, Holland SM, McCabe ER, Grimbacher B, Chatila TA.  
J Allergy Clin Immunol. 2009 Dec;124(6):1289-302.e4. Erratum in: J Allergy Clin Immunol. 2010 Mar;125(3):743. Kutuculer, Necil [corrected to Kutukculer, Necil].  
PMID: 20004785 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 17. [Hyper-IgE syndrome.](#)  
Minegishi Y.  
Curr Opin Immunol. 2009 Oct;21(5):487-92. Epub 2009 Aug 28. Review.  
PMID: 19717292 [PubMed - indexed for MEDLINE]
- 18. [\[Hyper-IgE syndrome with mutation in STAT3 gene - case report and literature review\].](#)  
Heropolitańska-Pliszka E, Pietrucha B, Mikołuc B, Bernatowska E.  
Med Wieku Rozwoj. 2009 Jan-Mar;13(1):19-25. Review. Polish.  
PMID: 19648655 [PubMed - indexed for MEDLINE]
- 19. [Defects along the T\(H\)17 differentiation pathway underlie genetically distinct forms of the hyper IgE syndrome.](#)  
Al Khatib S, Keles S, Garcia-Lloret M, Karakoc-Aydiner E, Reisli I, Artac H, Camcioglu Y, Cokugras H, Somer A, Kutukculer N, Yilmaz M, Ikcinciogullari A, Yegin O, Yucsek M, Genel F, Cucukosmanoglu E, Baki A, Bahceciler NN, Rambhatla A, Nickerson DW, McGhee S, Barlan IB, Chatila T.  
J Allergy Clin Immunol. 2009 Aug;124(2):342-8, 348.e1-5. Epub 2009 Jul 3.  
PMID: 19577286 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 20. [Pathogenesis of hyper IgE syndrome.](#)  
Heimall J, Freeman A, Holland SM.  
Clin Rev Allergy Immunol. 2010 Feb;38(1):32-8. Review.  
PMID: 19452285 [PubMed - indexed for MEDLINE]
- 21. [TH17 cells and regulatory T cells in primary immunodeficiency diseases.](#)  
Ochs HD, Oukka M, Torgerson TR.  
J Allergy Clin Immunol. 2009 May;123(5):977-83; quiz 984-5. Review.  
PMID: 19410687 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 22. [Clinical manifestations, etiology, and pathogenesis of the hyper-IgE syndromes.](#)  
Freeman AF, Holland SM.  
Pediatr Res. 2009 May;65(5 Pt 2):32R-37R. Review.  
PMID: 19190525 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 23. [Insights into the role of STAT3 in human lymphocyte differentiation as revealed by the hyper-IgE syndrome.](#)  
Tangye SG, Cook MC, Fulcher DA.  
J Immunol. 2009 Jan 1;182(1):21-8. Review.  
PMID: 19109129 [PubMed - indexed for MEDLINE] **Free Article**
- 24. [Hyper IgE \(Job's\) syndrome: a primary immune deficiency with oral manifestations.](#)  
Freeman AF, Domingo DL, Holland SM.  
Oral Dis. 2009 Jan;15(1):2-7. Epub 2008 Nov 25. Review.

PMID: 19036057 [PubMed - indexed for MEDLINE]

- [Hyper IgE syndrome: an update on clinical aspects and the role of signal transducer and activator of transcription 3.](#)
- 25. Paulson ML, Freeman AF, Holland SM.  
Curr Opin Allergy Clin Immunol. 2008 Dec;8(6):527-33. Review.  
PMID: 18978467 [PubMed - indexed for MEDLINE]
- [Reduced memory B cells in patients with hyper IgE syndrome.](#)
- 26. Speckmann C, Enders A, Woellner C, Thiel D, Rensing-Ehl A, Schlesier M, Rohr J, Jakob T, Oswald E, Kopp MV, Sanal O, Litzman J, Plebani A, Pietrogrande MC, Franco JL, Espanol T, Grimbacher B, Ehl S.  
Clin Immunol. 2008 Dec;129(3):448-54. Epub 2008 Oct 2.  
PMID: 18835223 [PubMed - indexed for MEDLINE]
- [Novel and recurrent STAT3 mutations in hyper-IgE syndrome patients from different ethnic groups.](#)
- 27. Jiao H, Tóth B, Erdos M, Fransson I, Rákóczi E, Balogh I, Magyarics Z, Dérfalvi B, Csorba G, Szaflarska A, Megarbane A, Akatcherian C, Dbaibo G, Rajnavölgyi E, Hammarström L, Kere J, Lefranc G, Maródi L.  
Mol Immunol. 2008 Nov;46(1):202-6. Epub 2008 Aug 15.  
PMID: 18706697 [PubMed - indexed for MEDLINE]
- [\[Hyper IgE syndrome. Opportune diagnosis and management\].](#)
- 28. Orozco CV, Velásquez LH, Méndez NH, Augusto B, Salazar T.  
Rev Alerg Mex. 2008 Jan-Feb;55(1):38-45. Review. Spanish.  
PMID: 18697452 [PubMed - indexed for MEDLINE]
- [Novel signal transducer and activator of transcription 3 \(STAT3\) mutations, reduced T\(H\)17 cell numbers, and variably defective STAT3 phosphorylation in hyper-IgE syndrome.](#)
- 29. Renner ED, Rylaarsdam S, Anover-Sombke S, Rack AL, Reichenbach J, Carey JC, Zhu Q, Jansson AF, Barboza J, Schimke LF, Leppert MF, Getz MM, Seger RA, Hill HR, Belohradsky BH, Torgerson TR, Ochs HD.  
J Allergy Clin Immunol. 2008 Jul;122(1):181-7.  
PMID: 18602572 [PubMed - indexed for MEDLINE]
- [The hyper-IgE syndromes.](#)
- 30. Freeman AF, Holland SM.  
Immunol Allergy Clin North Am. 2008 May;28(2):277-91, viii. Review.  
PMID: 18424333 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [Impaired T\(H\)17 cell differentiation in subjects with autosomal dominant hyper-IgE syndrome.](#)
- 31. Milner JD, Brenchley JM, Laurence A, Freeman AF, Hill BJ, Elias KM, Kanno Y, Spalding C, Elloumi HZ, Paulson ML, Davis J, Hsu A, Asher AI, O'Shea J, Holland SM, Paul WE, Douek DC.  
Nature. 2008 Apr 10;452(7188):773-6. Epub 2008 Mar 12.  
PMID: 18337720 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [STAT3 mutations in the hyper-IgE syndrome.](#)
- 32. Holland SM, DeLeo FR, Elloumi HZ, Hsu AP, Uzel G, Brodsky N, Freeman AF, Demidowich A, Davis J, Turner ML, Anderson VL, Darnell DN, Welch PA, Kuhns DB, Frucht DM, Malech HL, Gallin JI, Kobayashi SD, Whitney AR, Voyich JM, Musser JM, Woellner C, Schäffer AA, Puck JM, Grimbacher B.  
N Engl J Med. 2007 Oct 18;357(16):1608-19. Epub 2007 Sep 19.  
PMID: 17881745 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Dominant-negative mutations in the DNA-binding domain of STAT3 cause hyper-IgE syndrome.](#)
- 33. Minegishi Y, Saito M, Tsuchiya S, Tsuge I, Takada H, Hara T, Kawamura N, Ariga T, Pasic S, Stojkovic O, Metin A, Karasuyama H.  
Nature. 2007 Aug 30;448(7157):1058-62. Epub 2007 Aug 5.  
PMID: 17676033 [PubMed - indexed for MEDLINE]
- [\[Hyper-IgE syndrome\].](#)
- 34. Takada H, Nomura A, Hara T.  
Nihon Rinsho Meneki Gakkai Kaishi. 2004 Dec;27(6):361-6. Review. Japanese.  
PMID: 15678888 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Hyper-IgE syndromes.](#)
- 35. Grimbacher B, Holland SM, Puck JM.  
Immunol Rev. 2005 Feb;203:244-50. Review.  
PMID: 15661034 [PubMed - indexed for MEDLINE]
- [Autosomal-dominant primary immunodeficiencies.](#)
- 36. Lawrence T, Puel A, Reichenbach J, Ku CL, Chappier A, Renner E, Minard-Colin V, Ouachée M, Casanova JL.  
Curr Opin Hematol. 2005 Jan;12(1):22-30. Review.  
PMID: 15604887 [PubMed - indexed for MEDLINE]
- [Analphoid marker chromosome in a patient with hyper-IgE syndrome, autism, and mild mental retardation.](#)

37. Grimbacher B, Dutra AS, Holland SM, Fischer RE, Pao M, Gallin JI, Puck JM. *Genet Med.* 1999 Jul-Aug;1(5):213-8.  
PMID: 11256675 [PubMed - indexed for MEDLINE]
- [Genetic linkage of hyper-IgE syndrome to chromosome 4.](#)
38. Grimbacher B, Schäffer AA, Holland SM, Davis J, Gallin JI, Malech HL, Atkinson TP, Belohradsky BH, Buckley RH, Cossu F, Español T, Garty BZ, Matamoros N, Myers LA, Nelson RP, Ochs HD, Renner ED, Wellinghausen N, Puck JM. *Am J Hum Genet.* 1999 Sep;65(3):735-44.  
PMID: 10441580 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Hyper-IgE syndrome with recurrent infections--an autosomal dominant multisystem disorder.](#)
39. Grimbacher B, Holland SM, Gallin JI, Greenberg F, Hill SC, Malech HL, Miller JA, O'Connell AC, Puck JM. *N Engl J Med.* 1999 Mar 4;340(9):692-702.  
PMID: 10053178 [PubMed - indexed for MEDLINE] **Free Article**
- [Combined neutrophil and T-cell deficiency: initial report of a kindred with features of the hyper-IgE syndrome and chronic granulomatous disease.](#)
40. Robinson MF, McGregor R, Collins R, Cheung K. *Am J Med.* 1982 Jul;73(1):63-70.  
PMID: 6979928 [PubMed - indexed for MEDLINE]

## PubMed

Search: "TYK2 Kinase"[Mesh] AND DEFICIENCY

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (17)

Display Settings: Summary, 20 per page, Sorted by Recently Added

[Manage Filters](#)Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 17

1. [Th17 cells, Job's syndrome and HIV: opportunities for bacterial and fungal infections.](#)  
Milner JD, Sandler NG, Douek DC.  
Curr Opin HIV AIDS. 2010 Mar;5(2):179-83. Review.  
PMID: 20543597 [PubMed - indexed for MEDLINE]
2. [Pathogenesis of hyper IgE syndrome.](#)  
Heimall J, Freeman A, Holland SM.  
Clin Rev Allergy Immunol. 2010 Feb;38(1):32-8. Review.  
PMID: 19452285 [PubMed - indexed for MEDLINE]
3. [PTP1B is a negative regulator of interleukin 4-induced STAT6 signaling.](#)  
Lu X, Malumbres R, Shields B, Jiang X, Sarosiek KA, Natkunam Y, Tiganis T, Lossos IS.  
Blood. 2008 Nov 15;112(10):4098-108. Epub 2008 Aug 20.  
PMID: 18716132 [PubMed - indexed for MEDLINE] [Free PMC Article](#) [Free text](#)
4. [Genetic origins of hyper-IgE syndrome.](#)  
Minegishi Y, Karasuyama H.  
Curr Allergy Asthma Rep. 2008 Sep;8(5):386-91.  
PMID: 18682102 [PubMed - indexed for MEDLINE]
5. [Hyperimmunoglobulin E syndrome and tyrosine kinase 2 deficiency.](#)  
Minegishi Y, Karasuyama H.  
Curr Opin Allergy Clin Immunol. 2007 Dec;7(6):506-9. Review.  
PMID: 17989526 [PubMed - indexed for MEDLINE]
6. [Human primary immunodeficiencies of type I interferons.](#)  
Jouanguy E, Zhang SY, Chappier A, Sancho-Shimizu V, Puel A, Picard C, Boisson-Dupuis S, Abel L, Casanova JL.  
Biochimie. 2007 Jun-Jul;89(6-7):878-83. Epub 2007 May 8. Review.  
PMID: 17561326 [PubMed - indexed for MEDLINE]
7. [The hyper IgE syndrome and mutations in TYK2.](#)  
Woellner C, Schäffer AA, Puck JM, Renner ED, Knebel C, Holland SM, Plebani A, Grimbacher B.  
Immunity. 2007 May;26(5):535; author reply 536. No abstract available.  
PMID: 17521577 [PubMed - indexed for MEDLINE]
8. [Recent advances in growth hormone signaling.](#)  
Lanning NJ, Carter-Su C.  
Rev Endocr Metab Disord. 2006 Dec;7(4):225-35. Review.  
PMID: 17308965 [PubMed - indexed for MEDLINE]
9. [Human tyk2 kinase deficiency: another primary immunodeficiency syndrome.](#)  
Watford WT, O'Shea JJ.  
Immunity. 2006 Nov;25(5):695-7. Review.  
PMID: 17098200 [PubMed - indexed for MEDLINE]
10. [Human tyrosine kinase 2 deficiency reveals its requisite roles in multiple cytokine signals involved in innate and acquired immunity.](#)  
Minegishi Y, Saito M, Morio T, Watanabe K, Agematsu K, Tsuchiya S, Takada H, Hara T, Kawamura N, Ariga T, Kaneko H, Kondo N, Tsuge I, Yachie A, Sakiyama Y, Iwata T, Bessho F, Ohishi T, Joh K, Imai K, Kogawa K, Shinohara M, Fujieda M, Wakiguchi H, Pasic S, Abinun M, Ochs HD, Renner ED, Jansson A, Belohradsky BH, Metin A, Shimizu N, Mizutani S, Miyawaki T, Nonoyama S, Karasuyama H.  
Immunity. 2006 Nov;25(5):745-55.  
PMID: 17088085 [PubMed - indexed for MEDLINE]
11. [Tyk2 is dispensable for induction of myeloproliferative disease by mutant FLT3.](#)  
Nakajima H, Shibata F, Kumagai H, Shimoda K, Kitamura T.  
Int J Hematol. 2006 Jul;84(1):54-9.  
PMID: 16867903 [PubMed - indexed for MEDLINE]
12. [An indispensable role for STAT1 in IL-27-induced T-bet expression but not proliferation of naive CD4+ T cells.](#)  
Kamiya S, Owaki T, Morishima N, Fukai F, Mizuguchi J, Yoshimoto T.  
J Immunol. 2004 Sep 15;173(6):3871-7.  
PMID: 15356135 [PubMed - indexed for MEDLINE] [Free Article](#)

[Activity of hybrid type I interferons in cells lacking Tyk2: a common region of IFN-alpha 8 induces a response, but IFN-alpha2/8 hybrids can behave like IFN-beta.](#)

Platis D, Foster GR.

J Interferon Cytokine Res. 2003 Nov;23(11):655-66.

PMID: 14651780 [PubMed - indexed for MEDLINE]

14. [Partial impairment of cytokine responses in Tyk2-deficient mice.](#)  
Karaghiosoff M, Neubauer H, Lassnig C, Kovarik P, Schindler H, Pircher H, McCoy B, Bogdan C, Decker T, Brem G, Pfeffer K, Müller M.  
Immunity. 2000 Oct;13(4):549-60.  
PMID: 11070173 [PubMed - indexed for MEDLINE]
15. [Regulation of STAT1 nuclear export by Jak1.](#)  
Mowen K, David M.  
Mol Cell Biol. 2000 Oct;20(19):7273-81.  
PMID: 10982844 [PubMed - indexed for MEDLINE] [Free PMC Article](#) [Free text](#)
16. [Interferon-resistant human melanoma cells are deficient in ISGF3 components, STAT1, STAT2, and p48-ISGF3gamma.](#)  
Wong LH, Krauer KG, Hatzinisiriou I, Estcourt MJ, Hersey P, Tam ND, Edmondson S, Devenish RJ, Ralph SJ.  
J Biol Chem. 1997 Nov 7;272(45):28779-85.  
PMID: 9353349 [PubMed - indexed for MEDLINE] [Free Article](#)
17. [Kinase-deficient forms of Jak1 and Tyk2 inhibit interferon alpha signaling in a dominant manner.](#)  
Krishnan K, Pine R, Krolewski JJ.  
Eur J Biochem. 1997 Jul 1;247(1):298-305.  
PMID: 9249040 [PubMed - indexed for MEDLINE] [Free Article](#)

# PubMed

Search: STAT3 Transcription Factor AND case reports

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (24)

Display Settings: Summary, 50 per page, Sorted by Recently Added

[Manage Filters](#)

## Results: 24

1.  [Successful long-term correction of autosomal recessive hyper-IgE syndrome due to DOCK8 deficiency by hematopoietic stem cell transplantation.](#)  
Bittner TC, Pannicke U, Renner ED, Notheis G, Hoffmann F, Belohradsky BH, Wintergerst U, Hauser M, Klein B, Schwarz K, Schmid I, Albert MH.  
Klin Padiatr. 2010 Nov;222(6):351-5. Epub 2010 Nov 5.  
PMID: 21058221 [PubMed - indexed for MEDLINE]
2.  [Monitoring photobleaching and hemodynamic responses to HPPH-mediated photodynamic therapy of head and neck cancer: a case report.](#)  
Sunar U, Rohrbach D, Rigual N, Tracy E, Keymel K, Cooper MT, Baumann H, Henderson BH.  
Opt Express. 2010 Jul 5;18(14):14969-78. doi: 10.1364/OE.18.014969.  
PMID: 20639983 [PubMed - indexed for MEDLINE] **Free PMC Article**
3.  [Successful long-term immunologic reconstitution by allogeneic hematopoietic stem cell transplantation cures patients with autosomal dominant hyper-IgE syndrome.](#)  
Goussetis E, Peristeri I, Kitra V, Traeger-Synodinos J, Theodosaki M, Psarra K, Kanariou M, Tzortzatos-Stathopoulou F, Petrakou E, Fylaktou I, Kanavakis E, Graphakos S.  
J Allergy Clin Immunol. 2010 Aug;126(2):392-4. Epub 2010 Jul 2. No abstract available.  
PMID: 20584545 [PubMed - indexed for MEDLINE]
4.  [Hyper-IgE syndrome with STAT3 mutation: a case report in Mainland China.](#)  
Xie L, Hu X, Li Y, Zhang W, Chen L.  
Clin Dev Immunol. 2010;2010:289873. Epub 2010 May 17.  
PMID: 20490271 [PubMed - indexed for MEDLINE] **Free PMC Article**
5.  [A novel mutation in the signal transducer and activator of transcription 3 \(STAT3\) gene, in hyper-IgE syndrome.](#)  
Papanastasiou AD, Mantagos S, Papanastasiou DA, Zarkadis IK.  
Mol Immunol. 2010 Apr;47(7-8):1629-34. Epub 2010 Feb 9.  
PMID: 20149460 [PubMed - indexed for MEDLINE]
6.  [Skin-deep clues to a complex disease.](#)  
Cho C, Ferdman RM, Church JA, Ong PY.  
Ann Allergy Asthma Immunol. 2010 Jan;104(1):93-4. No abstract available.  
PMID: 20143652 [PubMed - indexed for MEDLINE]
7.  [Hyperimmunoglobulin E syndrome with a novel STAT3 mutation.](#)  
Anolik R, Elmariah S, Lehrhoff S, Votava HJ, Martiniuk FT, Levis W.  
Dermatol Online J. 2009 Aug 15;15(8):16.  
PMID: 19891924 [PubMed - indexed for MEDLINE] **Free Article**
8.  [Inflammatory bowel disease and mutations affecting the interleukin-10 receptor.](#)  
Glocker EO, Kotlarz D, Boztug K, Gertz EM, Schäffer AA, Noyan F, Perro M, Diestelhorst J, Allroth A, Murugan D, Hätscher N, Pfeifer D, Sykora KW, Sauer M, Kreipe H, Lacher M, Nustede R, Woellner C, Baumann U, Salzer U, Koletzko S, Shah N, Segal AW, Sauerbrey A, Buderus S, Snapper SB, Grimmacher B, Klein C.  
N Engl J Med. 2009 Nov 19;361(21):2033-45. Epub 2009 Nov 4.  
PMID: 19890111 [PubMed - indexed for MEDLINE] **Free PMC Article**
9.  [\[Hyper-IgE syndrome with mutation in STAT3 gene - case report and literature review\].](#)  
Heropolitańska-Pliszka E, Pietrucha B, Mikołuc B, Bernatowska E.  
Med Wieku Rozwoj. 2009 Jan-Mar;13(1):19-25. Review. Polish.  
PMID: 19648655 [PubMed - indexed for MEDLINE]
10.  [Coccidioides immitis meningitis in a patient with hyperimmunoglobulin E syndrome due to a novel mutation in signal transducer and activator of transcription.](#)  
Powers AE, Bender JM, Kumánovics A, Ampofo K, Augustine N, Pavia AT, Hill HR.  
Pediatr Infect Dis J. 2009 Jul;28(7):664-6.  
PMID: 19483664 [PubMed - indexed for MEDLINE]
11.  [A novel mutation in the linker domain of the signal transducer and activator of transcription 3 gene, p.Lys531Glu, in hyper-IgE syndrome.](#)  
Kim HJ, Kim JH, Shin YK, Lee SI, Ahn KM.  
J Allergy Clin Immunol. 2009 Apr;123(4):956-8. No abstract available.

PMID: 19348930 [PubMed - indexed for MEDLINE]

■ [Glioblastoma in multiple sclerosis: a case report.](#)

12. Frisullo G, Patanella AK, Nociti V, Cianfoni A, Iorio R, Bianco A, Marti A, Tonali PA, Batocchi AP.  
J Neurooncol. 2009 Aug;94(1):141-4. Epub 2009 Feb 13.  
PMID: 19214706 [PubMed - indexed for MEDLINE]

■ [A germline mutation \(A339V\) in thyroid transcription factor-1 \(TTF-1/NKX2.1\) in patients with multinodular goiter and papillary thyroid carcinoma.](#)

13. Ngan ES, Lang BH, Liu T, Shum CK, So MT, Lau DK, Leon TY, Cherny SS, Tsai SY, Lo CY, Khoo US, Tam PK, Garcia-Barceló MM.  
J Natl Cancer Inst. 2009 Feb 4;101(3):162-75. Epub 2009 Jan 27.  
PMID: 19176457 [PubMed - indexed for MEDLINE] **Free Article**

■ [Monitoring of human liver and kidney allograft tolerance: a tissue/histopathology perspective.](#)

14. Demetris AJ, Lunz JG 3rd, Randhawa P, Wu T, Nalesnik M, Thomson AW.  
Transpl Int. 2009 Jan;22(1):120-41. Epub 2008 Sep 26. Review.  
PMID: 18980624 [PubMed - indexed for MEDLINE]

■ [Hyperactivated STAT3 in ALK-positive diffuse large B-cell lymphoma with clathrin-ALK fusion.](#)

15. Momose S, Tamaru J, Kishi H, Mikata I, Mori M, Toyozumi Y, Itoyama S.  
Hum Pathol. 2009 Jan;40(1):75-82. Epub 2008 Aug 27.  
PMID: 18755494 [PubMed - indexed for MEDLINE]

■ [Signal transduction proteins in tumors from Puerto Rican and Caucasian gastric adenocarcinoma patients: expression differences with potential for specific targeted therapies.](#)

16. Cangiano J, Centeno BA, Garrett CR, Cáceres W, de Jesús A, Lee JH, Pavia O, Jove R, Báez L, Sullivan DM, Muro-Cacho CA, Muñoz-Antonia T.  
Dig Dis Sci. 2008 Aug;53(8):2090-100. Epub 2008 Jan 26.  
PMID: 18224443 [PubMed - indexed for MEDLINE]

■ [Integration of HIV-1 caused STAT3-associated B cell lymphoma in an AIDS patient.](#)

17. Katano H, Sato Y, Hoshino S, Tachikawa N, Oka S, Morishita Y, Ishida T, Watanabe T, Rom WN, Mori S, Sata T, Weiden MD, Hoshino Y.  
Microbes Infect. 2007 Nov-Dec;9(14-15):1581-9. Epub 2007 Sep 14.  
PMID: 18024124 [PubMed - indexed for MEDLINE] **Free PMC Article**

■ [STAT3 mutation in the original patient with Job's syndrome.](#)

18. Renner ED, Torgerson TR, Rylaarsdam S, Añover-Sombke S, Golob K, LaFlam T, Zhu Q, Ochs HD.  
N Engl J Med. 2007 Oct 18;357(16):1667-8. No abstract available.  
PMID: 17942886 [PubMed - indexed for MEDLINE] **Free Article**

■ [Cloning and characterization of the novel chimeric gene TEL/PTPRR in acute myelogenous leukemia with inv\(12\)\(p13q13\).](#)

19. Nakamura F, Nakamura Y, Maki K, Sato Y, Mitani K.  
Cancer Res. 2005 Aug 1;65(15):6612-21.  
PMID: 16061641 [PubMed - indexed for MEDLINE] **Free Article**

■ [Growth hormone \(GH\) insensitivity syndrome due to a GH receptor truncated after Box1, resulting in isolated failure of STAT 5 signal transduction.](#)

20. Milward A, Metherell L, Maamra M, Barahona MJ, Wilkinson IR, Camacho-Hübner C, Savage MO, Bidlingmaier M, Clark AJ, Ross RJ, Webb SM.  
J Clin Endocrinol Metab. 2004 Mar;89(3):1259-66. Erratum in: J Clin Endocrinol Metab. 2009 Jul;94(7):2674. Bidlingmaier, C M [corrected to Bidlingmaier, M].  
PMID: 15001620 [PubMed - indexed for MEDLINE] **Free Article**

■ [Constitutive activation of Stat1 and Stat3 in primary erythroleukemia cells.](#)

21. Kirito K, Nagashima T, Ozawa K, Komatsu N.  
Int J Hematol. 2002 Jan;75(1):51-4.  
PMID: 11843291 [PubMed - indexed for MEDLINE]

■ [Impairment of STAT activation by IL-12 in a patient with atypical mycobacterial and staphylococcal infections.](#)

22. Gollob JA, Veenstra KG, Jyonouchi H, Kelly AM, Ferrieri P, Panka DJ, Altare F, Fieschi C, Casanova JL, Frank DA, Mier JW.  
J Immunol. 2000 Oct 1;165(7):4120-6.  
PMID: 11034424 [PubMed - indexed for MEDLINE] **Free Article**

■ [Novel point mutation in the extracellular domain of the granulocyte colony-stimulating factor \(G-CSF\) receptor in a case of severe congenital neutropenia hyporesponsive to G-CSF treatment.](#)

23. Ward AC, van Aesch YM, Gits J, Schelen AM, de Koning JP, van Leeuwen D, Freedman MH, Touw IP.  
J Exp Med. 1999 Aug 16;190(4):497-507.  
PMID: 10449521 [PubMed - indexed for MEDLINE] **Free PMC Article**

■ [Role of epidermal growth factor receptor and STAT-3 activation in autonomous proliferation of SUM-102PT human breast cancer cells.](#)

24. [Role of epidermal growth factor receptor and STAT-3 activation in autonomous proliferation of SUM-102PT human breast cancer cells.](#)

Sartor CI, Dziubinski ML, Yu CL, Jove R, Ethier SP.  
Cancer Res. 1997 Mar 1;57(5):978-87.

PMID: 9041204 [PubMed - indexed for MEDLINE] **Free Article**



Limits Activated: Humans [Change](#) | [Remove](#)

## Results: 62

- [Clinical problem-solving. A crazy cause of dyspnea.](#)
  1. Miller AL, Schissel S, Levy BD, Loscalzo J.  
N Engl J Med. 2011 Jan 6;364(1):72-7. No abstract available.  
PMID: 21208111 [PubMed - indexed for MEDLINE]
  
- [A crazy cause of dyspnea.](#)
  2. Hunt S, Miller AL, Schissel S, Ross JJ.  
N Engl J Med. 2010 Dec 16;363(25):e38. No abstract available.  
PMID: 21158654 [PubMed - indexed for MEDLINE] **Free Article**
  
- [In Lysinuric Protein Intolerance system  \$\gamma\$ +L activity is defective in monocytes and in GM-CSF-differentiated macrophages.](#)
  3. Barilli A, Rotoli BM, Visigalli R, Bussolati O, Gazzola GC, Kadija Z, Rodi G, Mariani F, Ruzza ML, Luisetti M, Dall'Asta V.  
Orphanet J Rare Dis. 2010 Nov 26;5:32.  
PMID: 21110863 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Therapeutic effectiveness of rituximab in a patient with unresponsive autoimmune pulmonary alveolar proteinosis.](#)
  4. Amital A, Dux S, Shitrit D, Shpilberg O, Kramer MR.  
Thorax. 2010 Nov;65(11):1025-6. Epub 2010 Sep 20.  
PMID: 20855439 [PubMed - indexed for MEDLINE]
  
- [\[A case of pulmonary alveolar proteinosis which initially deteriorated rapidly with exacerbation of pulmonary nocardiosis, responded promptly to treatment of the pulmonary nocardiosis\].](#)
  5. Yamaguchi S, Takayanagi N, Tokunaga D, Sugita Y, Kawabata Y.  
Nihon Kokyuki Gakkai Zasshi. 2010 Aug;48(8):580-3. Japanese.  
PMID: 20803974 [PubMed - indexed for MEDLINE]
  
- [In vivo imaging of pulmonary alveolar proteinosis using confocal endomicroscopy.](#)
  6. Salaün M, Roussel F, Hauss PA, Lachkar S, Thiberville L.  
Eur Respir J. 2010 Aug;36(2):451-3. No abstract available.  
PMID: 20675784 [PubMed - indexed for MEDLINE]
  
- [\[A case of secondary pulmonary alveolar proteinosis associated with myelodysplastic syndrome, complicated with disseminated M. abscessus infection\].](#)
  7. Asai Y, Ouchi H, Ohosima T, Nakano R, Yamano Y, Inoshima I, Yamauchi T, Fukuyama S, Inoue H, Nakanishi Y.  
Nihon Kokyuki Gakkai Zasshi. 2009 Dec;47(12):1120-5. Japanese.  
PMID: 20058690 [PubMed - indexed for MEDLINE]
  
- [SP-D counteracts GM-CSF-mediated increase of granuloma formation by alveolar macrophages in lysinuric protein intolerance.](#)
  8. Douda DN, Farmakovski N, Dell S, Grasemann H, Palaniyar N.  
Orphanet J Rare Dis. 2009 Dec 23;4:29.  
PMID: 20030831 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Pulmonary alveolar proteinosis in workers at an indium processing facility.](#)
  9. Cummings KJ, Donat WE, Ettensohn DB, Roggli VL, Ingram P, Kreiss K.  
Am J Respir Crit Care Med. 2010 Mar 1;181(5):458-64. Epub 2009 Dec 17.  
PMID: 20019344 [PubMed - indexed for MEDLINE] **Free Article**
  
- [\[Patient with autoimmune alveolar proteinosis who did not respond to GM-CSF inhalation therapy and underwent repeated whole-lung lavage\].](#)
  10. Ueda Y, Matsuo K, Tsushima M, Mizuta M, Fujiwara K, Yonei T, Sato T.  
Nihon Kokyuki Gakkai Zasshi. 2009 Sep;47(9):833-8. Japanese.  
PMID: 19827590 [PubMed - indexed for MEDLINE]
  
- [Plasmapheresis for treatment of pulmonary alveolar proteinosis.](#)
  11. Luisetti M, Rodi G, Perotti C, Campo I, Mariani F, Pozzi E, Trapnell BC.  
Eur Respir J. 2009 May;33(5):1220-2.  
PMID: 19407056 [PubMed - indexed for MEDLINE] **Free Article**

- 12. [\[Response to inhaled granulocyte-macrophage colony-stimulating factor in a patient with alveolar proteinosis\].](#)  
Rodríguez Portal JA, Rodríguez Becerra E, Sánchez Garrido A.  
Arch Bronconeumol. 2009 Mar;45(3):150-2. Epub 2009 Feb 10. Spanish.  
PMID: 19286115 [PubMed - indexed for MEDLINE] **Free Article**
- 13. [Quantitative analysis of longitudinal response to aerosolized granulocyte-macrophage colony-stimulating factor in two adolescents with autoimmune pulmonary alveolar proteinosis.](#)  
Robinson TE, Trapnell BC, Goris ML, Quittell LM, Cornfield DN.  
Chest. 2009 Mar;135(3):842-8.  
PMID: 19265094 [PubMed - indexed for MEDLINE] **Free Article**
- 14. [Pulmonary alveolar proteinosis in a patient with Behcet's disease.](#)  
Uchiyama M, Nagao T, Hattori A, Fujii T, Ichiwata T, Nakata K, Tani K, Hayashi T.  
Respirology. 2009 Mar;14(2):305-8. Epub 2008 Dec 11.  
PMID: 19210651 [PubMed - indexed for MEDLINE]
- 15. [\[Early case of idiopathic pulmonary alveolar proteinosis positive for serum anti-GM-CSF antibody\].](#)  
Yamasaki K, Yoshii C, Nishida C, Kunimoto M, Yoda F, Kawanami T, Sakurai Y, Nakamura T, Yatera K, Kido M.  
Nihon Kokyuki Gakkai Zasshi. 2008 Sep;46(9):712-6. Japanese.  
PMID: 18939413 [PubMed - indexed for MEDLINE]
- 16. [\[Idiopathic pulmonary alveolar proteinosis: report of three cases and literature review\].](#)  
Mu XD, Nie LG, Wang GF, Que CL, Li HC.  
Beijing Da Xue Xue Bao. 2008 Oct 18;40(5):551-4. Chinese.  
PMID: 18931723 [PubMed - indexed for MEDLINE] **Free Article**
- 17. [\[A case of idiopathic pulmonary alveolar proteinosis with multiple localized ground-glass opacities\].](#)  
Taniguchi H, Abo H, Touge M, Shinnou H, Miyazawa H, Noto H, Uchiyama A, Miwa A, Shimura S, Izumi S.  
Arerugi. 2008 Aug;57(8):1061-6. Japanese.  
PMID: 18781111 [PubMed - indexed for MEDLINE]
- 18. [\[Pulmonary alveolar proteinosis: a disease caused by surfactant accumulation, and new treatment with sargramostim\].](#)  
Huisman P, Grutters JC, van den Bosch JM.  
Ned Tijdschr Geneeskd. 2008 Jun 28;152(26):1450-4. Dutch.  
PMID: 18666660 [PubMed - indexed for MEDLINE]
- 19. [A combination therapy of whole lung lavage and GM-CSF inhalation in pulmonary alveolar proteinosis.](#)  
Yamamoto H, Yamaguchi E, Agata H, Kandatsu N, Komatsu T, Kawai S, Baba K, Awaya T, Nishikomori R, Tsurusawa M, Nakata K.  
Pediatr Pulmonol. 2008 Aug;43(8):828-30.  
PMID: 18618617 [PubMed - indexed for MEDLINE]
- 20. [Rare lung disease II: pulmonary alveolar proteinosis.](#)  
Juvet SC, Hwang D, Waddell TK, Downey GP.  
Can Respir J. 2008 May-Jun;15(4):203-10. Review.  
PMID: 18551202 [PubMed - indexed for MEDLINE] **Free PMC Article**
- 21. [Differences in the immunolocalization of surfactant protein \(SP\)-A, SP-D, and KL-6 in pulmonary alveolar proteinosis.](#)  
Kobayashi M, Takeuchi T, Ohtsuki Y.  
Pathol Int. 2008 Mar;58(3):203-7.  
PMID: 18251786 [PubMed - indexed for MEDLINE]
- 22. [\[Pulmonary alveolar proteinosis: report of two cases and review of the literature\].](#)  
Cambursano VH, Langer MD, Cazaux A, Fossati F, González Achaval CJ, Ezcurra S, Mendoza C, Schiarolli H, Marino M.  
Rev Fac Cien Med Univ Nac Cordoba. 2008;65(1):23-31. Review. Spanish.  
PMID: 20803936 [PubMed - indexed for MEDLINE]
- 23. [Membranous nephropathy and pulmonary alveolar proteinosis.](#)  
Yamada H, Miura N, Kitagawa W, Kashima Y, Matsui S, Ozeki N, Nishikawa K, Imai H.  
Intern Med. 2007;46(17):1441-6. Epub 2007 Sep 3.  
PMID: 17827846 [PubMed - indexed for MEDLINE] **Free Article**
- 24. [\[Alveolar proteinosis: a case report and review of the literature\].](#)  
Ekoutou A, Makosso E, Dologuele-Potolo L.  
Mali Med. 2007;22(3):58-60. Review. French.  
PMID: 19434997 [PubMed - indexed for MEDLINE]
- 25. [Pulmonary alveolar proteinosis with myeloproliferative syndrome with myelodysplasia: bronchoalveolar lavage reduces white blood cell count.](#)  
Pollack SM, Gutierrez G, Ascensao J.  
Am J Hematol. 2006 Aug;81(8):634-8.  
PMID: 16906593 [PubMed - indexed for MEDLINE]

- 26. [Possible ocular involvement in pulmonary alveolar proteinosis.](#)  
Perri P, Campa C, D'Angelo S, Costagliola C, Incorvaia C, Sebastiani A.  
Eur Respir J. 2006 Aug;28(2):456. No abstract available.  
PMID: 16880375 [PubMed - indexed for MEDLINE] **Free Article**
- 27. [Serum antibody against granulocyte/macrophage colony-stimulating factor and KL-6 in idiopathic pulmonary alveolar proteinosis.](#)  
Nara M, Sano K, Ogawa H, Tamada T, Nagaoka M, Okada K, Watanabe M, Moriya T, Miki H, Nakata K, Ichinose M, Hattori T.  
Tohoku J Exp Med. 2006 Apr;208(4):349-54.  
PMID: 16565598 [PubMed - indexed for MEDLINE] **Free Article**
- 28. [Pulmonary alveolar proteinosis associated with anti-GM-CSF antibodies in a child: successful treatment with inhaled GM-CSF.](#)  
Price A, Manson D, Cutz E, Dell S.  
Pediatr Pulmonol. 2006 Apr;41(4):367-70. No abstract available.  
PMID: 16475176 [PubMed - indexed for MEDLINE]
- 29. [Successful treatment of congenital pulmonary alveolar proteinosis with intravenous immunoglobulin G administration.](#)  
Cho K, Nakata K, Ariga T, Okajima S, Matsuda T, Ueda K, Furuta I, Kobayashi K, Minakami H.  
Respirology. 2006 Jan;11 Suppl:S74-7.  
PMID: 16423278 [PubMed - indexed for MEDLINE]
- 30. [Granulocyte-macrophage colony-stimulating factor inhalation therapy for patients with idiopathic pulmonary alveolar proteinosis: a pilot study; and long-term treatment with aerosolized granulocyte-macrophage colony-stimulating factor: a case report.](#)  
Tazawa R, Nakata K, Inoue Y, Nukiwa T.  
Respirology. 2006 Jan;11 Suppl:S61-4.  
PMID: 16423274 [PubMed - indexed for MEDLINE]
- 31. [\[Pulmonary alveolar proteinosis\].](#)  
Blanchet AS, Cottin V, Cordier JF.  
Rev Prat. 2005 Nov 15;55(17):1865. French. No abstract available.  
PMID: 16396225 [PubMed - indexed for MEDLINE]
- 32. [\[Congenital pulmonary alveolar proteinosis: a case report\].](#)  
Pissarra S, Rocha G, Acevedo I, Guimarães H.  
Acta Med Port. 2005 Mar-Apr;18(2):163-8. Epub 2005 Apr 28. Portuguese.  
PMID: 16202349 [PubMed - indexed for MEDLINE] **Free Article**
- 33. [A case of pulmonary alveolar proteinosis treated with whole lung lavage.](#)  
Koplin-Baucum S, Hurst S.  
Dimens Crit Care Nurs. 2005 May-Jun;24(3):120-2. Review.  
PMID: 15912060 [PubMed - indexed for MEDLINE]
- 34. [Pulmonary alveolar proteinosis.](#)  
Akin MR, Nguyen GK.  
Pathol Res Pract. 2004;200(10):693-8; discussion 699-700.  
PMID: 15648606 [PubMed - indexed for MEDLINE]
- 35. [Serum neutralizing capacity of GM-CSF reflects disease severity in a patient with pulmonary alveolar proteinosis successfully treated with inhaled GM-CSF.](#)  
Arai T, Hamano E, Inoue Y, Ryushi T, Nukiwa T, Sakatani M, Nakata K.  
Respir Med. 2004 Dec;98(12):1227-30.  
PMID: 15588045 [PubMed - indexed for MEDLINE]
- 36. [Pulmonary alveolar proteinosis associated with psoriasis and complicated by mycobacterial infection: successful treatment with granulocyte-macrophage colony stimulating factor after a partial response to whole lung lavage.](#)  
Abdul Rahman JA, Moodley YP, Phillips MJ.  
Respirology. 2004 Aug;9(3):419-22.  
PMID: 15497254 [PubMed - indexed for MEDLINE]
- 37. [A case of idiopathic pulmonary alveolar proteinosis accompanied by T-cell receptor gene rearrangement in bronchoalveolar lavage fluid cells.](#)  
Hosokawa T, Yamaguchi E, Shirai S, Fuke S, Takaoka K, Kojima J, Nakata K, Nishimura M.  
Respirology. 2004 Jun;9(2):286-8.  
PMID: 15182285 [PubMed - indexed for MEDLINE]
- 38. [\[Alveolar lipoproteinosis, an incidental finding during an unrelated pre-surgical study with inadequate response to complete pulmonary washing\].](#)  
González-Barcala FJ, Blanco-González S, Valdés-Cuadrado L, García-Prim JM, Golpe-Gómez AL, Ledo-Andión R.  
An Med Interna. 2003 Aug;20(8):410-2. Spanish.  
PMID: 14516261 [PubMed - indexed for MEDLINE]

- [GM-CSF and proteinosis.](#)
- 39. Khanjari F, Watier H, Domenech J, Asquier E, Diot P, Nakata K. *Thorax*. 2003 Jul;58(7):645. No abstract available. PMID: 12832691 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [Plasmapheresis, GM-CSF, and alveolar proteinosis.](#)
- 40. Kavuru MS, Bonfield TL, Thomassen MJ. *Am J Respir Crit Care Med*. 2003 Apr 1;167(7):1036; author reply 1036-7. No abstract available. PMID: 12663343 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Secondary pulmonary alveolar proteinosis associated with myelodysplastic syndrome.](#)
- 41. Ohnishi T, Yamada G, Shijubo N, Takagi-Takahashi Y, Itoh T, Takahashi H, Satoh M, Koba H, Nakata K, Abe S. *Intern Med*. 2003 Feb;42(2):187-90. PMID: 12636240 [PubMed - indexed for MEDLINE] [Free Article](#)
- [\[GM-CSF: a therapeutic alternative to the bronchoalveolar lavage in the treatment of alveolar proteinosis\].](#)
- 42. Valdés L, Pose A, Alvarez D, Ventura M. *Med Clin (Barc)*. 2003 Feb 1;120(3):117. Spanish. No abstract available. PMID: 12605734 [PubMed - indexed for MEDLINE]
- [Pulmonary alveolar proteinosis successfully treated with ambroxol.](#)
- 43. Hashizume T. *Intern Med*. 2002 Dec;41(12):1175-8. PMID: 12521210 [PubMed - indexed for MEDLINE] [Free Article](#)
- [\[Familial alveolar proteinosis\].](#)
- 44. Ayadi H, Ayoub AK. *Rev Pneumol Clin*. 2002 Sep;58(4 Pt 1):245-8. French. PMID: 12407291 [PubMed - indexed for MEDLINE]
- [Pulmonary alveolar proteinosis: treatment by bronchofiberscopic lobar lavage.](#)
- 45. Cheng SL, Chang HT, Lau HP, Lee LN, Yang PC. *Chest*. 2002 Oct;122(4):1480-5. PMID: 12377884 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Pulmonary alveolar proteinosis and tuberculosis in a diabetic patient: a rare or a seldom diagnosed association?](#)
- 46. Pereira-Silva JL, Marinho MM, Veloso TV, Coelho JC JC. *Braz J Infect Dis*. 2002 Aug;6(4):188-95. PMID: 12204186 [PubMed - indexed for MEDLINE] [Free Article](#)
- [GM-CSF therapy in pulmonary alveolar proteinosis.](#)
- 47. de Vega MG, Sánchez-Palencia A, Ramírez A, Cervera S, Aneiros J. *Thorax*. 2002 Sep;57(9):837. No abstract available. PMID: 12200534 [PubMed - indexed for MEDLINE] [Free PMC Article](#)
- [Increased circulating CD16+ CD14dim monocytes in a patient with pulmonary alveolar proteinosis.](#)
- 48. Yoshioka Y, Ohwada A, Harada N, Satoh N, Sakuraba S, Dambara T, Fukuchi Y. *Respirology*. 2002 Sep;7(3):273-9. Erratum in: *Respirology*. 2003 Mar;8(1):115. PMID: 12153694 [PubMed - indexed for MEDLINE]
- [Pulmonary alveolar proteinosis: progress in the first 44 years.](#)
- 49. Seymour JF, Presneill JJ. *Am J Respir Crit Care Med*. 2002 Jul 15;166(2):215-35. Review. PMID: 12119235 [PubMed - indexed for MEDLINE] [Free Article](#)
- [\[Therapeutic efficacy of GM-CSF in pulmonary alveolar proteinosis\].](#)
- 50. Acosta O, Marañés I, Pérez A, Hernández AI, Bello MD, López Y. *Arch Bronconeumol*. 2002 Apr;38(4):191-3. Spanish. PMID: 11953273 [PubMed - indexed for MEDLINE] [Free Article](#)
- [Analysis of the GM-CSF and GM-CSF/IL-3/IL-5 receptor common beta chain in a patient with pulmonary alveolar proteinosis.](#)
- 51. Wang X, Liu F, Bewig B. *Chin Med J (Engl)*. 2002 Jan;115(1):76-80. PMID: 11930665 [PubMed - indexed for MEDLINE] [Free Article](#)
- [BAL findings in a patient with pulmonary alveolar proteinosis successfully treated with GM-CSF.](#)
- 52. Schoch OD, Schanz U, Koller M, Nakata K, Seymour JF, Russi EW, Boehler A. *Thorax*. 2002 Mar;57(3):277-80. PMID: 11867836 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

- [Our new understanding of pulmonary alveolar proteinosis: what an internist needs to know.](#)
- 53. Mazzone P, Thomassen MJ, Kavuru M.  
Cleve Clin J Med. 2001 Dec;68(12):977-8, 981-2, 984-5 passim. Review.  
PMID: 11765122 [PubMed - indexed for MEDLINE] **Free Article**
- [Pulmonary alveolar proteinosis: a complete response to GM-CSF therapy.](#)
- 54. Barraclough RM, Gillies AJ.  
Thorax. 2001 Aug;56(8):664-5.  
PMID: 11462071 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Focal congenital alveolar proteinosis associated with abnormal surfactant protein B messenger RNA.](#)
- 55. Mildemberger E, deMello DE, Lin Z, Kössel H, Hoehn T, Versmold HT.  
Chest. 2001 Feb;119(2):645-7.  
PMID: 11171752 [PubMed - indexed for MEDLINE] **Free Article**
- [Hyperfunction of neutrophils in a patient with BCR/ABL negative chronic myeloid leukemia: a case report with in vitro studies.](#)
- 56. Watari K, Tojo A, Nagamura-Inoue T, Matsuoka M, Irie S, Tani K, Yamada Y, Asano S.  
Cancer. 2000 Aug 1;89(3):551-60.  
PMID: 10931454 [PubMed - indexed for MEDLINE] **Free Article**
- [Exogenous granulocyte-macrophage colony-stimulating factor administration for pulmonary alveolar proteinosis.](#)
- 57. Kavuru MS, Sullivan EJ, Piccin R, Thomassen MJ, Stoller JK.  
Am J Respir Crit Care Med. 2000 Apr;161(4 Pt 1):1143-8.  
PMID: 10764303 [PubMed - indexed for MEDLINE] **Free Article**
- [Defective expression of granulocyte-macrophage colony-stimulating factor/interleukin-3/interleukin-5 receptor common beta chain in children with acute myeloid leukemia associated with respiratory failure.](#)
- 58. Dirksen U, Hattenhorst U, Schneider P, Schrotten H, Göbel U, Böcking A, Müller KM, Murray R, Burdach S.  
Blood. 1998 Aug 15;92(4):1097-103.  
PMID: 9694696 [PubMed - indexed for MEDLINE] **Free Article**
- [GM-CSF gene expression is normal but protein release is absent in a patient with pulmonary alveolar proteinosis.](#)
- 59. Tchou-Wong KM, Harkin TJ, Chi C, Bodkin M, Rom WN.  
Am J Respir Crit Care Med. 1997 Dec;156(6):1999-2002. Erratum in: Am J Respir Crit Care Med 1998 Apr;157(4 Pt 1):1353.  
PMID: 9412586 [PubMed - indexed for MEDLINE] **Free Article**
- [Human pulmonary alveolar proteinosis associated with a defect in GM-CSF/IL-3/IL-5 receptor common beta chain expression.](#)
- 60. Dirksen U, Nishinakamura R, Groneck P, Hattenhorst U, Noguee L, Murray R, Burdach S.  
J Clin Invest. 1997 Nov 1;100(9):2211-7.  
PMID: 9410898 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Haematopoietic transplantation in pulmonary alveolar proteinosis associated with chronic myelogenous leukaemia.](#)
- 61. Rodríguez-Luaces M, Lafuente A, Martín MP, Mateos P, Ojeda E, Hernández-Navarro F.  
Bone Marrow Transplant. 1997 Sep;20(6):507-10.  
PMID: 9313886 [PubMed - indexed for MEDLINE] **Free Article**
- [Efficacy of granulocyte-macrophage colony-stimulating factor in acquired alveolar proteinosis.](#)
- 62. Seymour JF, Dunn AR, Vincent JM, Presneill JJ, Pain MC.  
N Engl J Med. 1996 Dec 19;335(25):1924-5. No abstract available.  
PMID: 8965913 [PubMed - indexed for MEDLINE] **Free Article**

# PubMed

Search: Pulmonary alveolar proteinosis and CSF2RA

U.S. National Library of Medicine  
National Institutes of Health

Filter your results: All (7)

[Manage Filters](#)

Display Settings: Summary, 20 per page, Sorted by Recently Added

Limits Activated: Publication Date to 2010/12/1 [Change](#) | [Remove](#)

## Are you looking for gene information?

Source: Gene Database

[See 29 articles](#) about **CSF2RA** gene function**CSF2RA** colony stimulating factor 2 receptor, alpha, low-affinity (granulocyte-macrophage) [Homo sapiens]**csf2ra** in [Homo sapiens](#) | [Mus musculus](#) | [Rattus norvegicus](#) | [All 9 Gene records](#)

## Results: 7

- [Adult-onset hereditary pulmonary alveolar proteinosis caused by a single-base deletion in CSF2RB.](#)
- 1. Tanaka T, Motoi N, Tsuchihashi Y, Tazawa R, Kaneko C, Nei T, Yamamoto T, Hayashi T, Tagawa T, Nagayasu T, Kuribayashi F, Ariyoshi K, Nakata K, Morimoto K.  
J Med Genet. 2011 Mar;48(3):205-9. Epub 2010 Nov 12.  
PMID: 21075760 [PubMed - in process]
- [Immune dysregulation in the pathogenesis of pulmonary alveolar proteinosis.](#)
- 2. Martinez-Moczygemba M, Huston DP.  
Curr Allergy Asthma Rep. 2010 Sep;10(5):320-5. Review.  
PMID: 20623372 [PubMed - indexed for MEDLINE]
- [Hereditary pulmonary alveolar proteinosis: pathogenesis, presentation, diagnosis, and therapy.](#)
- 3. Suzuki T, Sakagami T, Young LR, Carey BC, Wood RE, Luisetti M, Wert SE, Rubin BK, Kevill K, Chalk C, Whitsett JA, Stevens C, Nogee LM, Campo I, Trapnell BC.  
Am J Respir Crit Care Med. 2010 Nov 15;182(10):1292-304. Epub 2010 Jul 9.  
PMID: 20622029 [PubMed - indexed for MEDLINE]
- [Pulmonary alveolar proteinosis, a primary immunodeficiency of impaired GM-CSF stimulation of macrophages.](#)
- 4. Trapnell BC, Carey BC, Uchida K, Suzuki T.  
Curr Opin Immunol. 2009 Oct;21(5):514-21. Epub 2009 Sep 30. Review.  
PMID: 19796925 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Out of breath: GM-CSFRalpha mutations disrupt surfactant homeostasis.](#)
- 5. Notarangelo LD, Pessach I.  
J Exp Med. 2008 Nov 24;205(12):2693-7. Epub 2008 Nov 17.  
PMID: 19015311 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Familial pulmonary alveolar proteinosis caused by mutations in CSF2RA.](#)
- 6. Suzuki T, Sakagami T, Rubin BK, Nogee LM, Wood RE, Zimmerman SL, Smolarek T, Dishop MK, Wert SE, Whitsett JA, Grabowski G, Carey BC, Stevens C, van der Loo JC, Trapnell BC.  
J Exp Med. 2008 Nov 24;205(12):2703-10. Epub 2008 Oct 27.  
PMID: 18955570 [PubMed - indexed for MEDLINE] **Free PMC Article**
- [Pulmonary alveolar proteinosis caused by deletion of the GM-CSFRalpha gene in the X chromosome pseudoautosomal region 1.](#)
- 7. Martinez-Moczygemba M, Doan ML, Elidemir O, Fan LL, Cheung SW, Lei JT, Moore JP, Tavana G, Lewis LR, Zhu Y, Muzny DM, Gibbs RA, Huston DP.  
J Exp Med. 2008 Nov 24;205(12):2711-6. Epub 2008 Oct 27.  
PMID: 18955567 [PubMed - indexed for MEDLINE] **Free PMC Article**

Display Settings: Summary, 20 per page, Sorted by Recently Added

Limits Activated: Publication Date to 2010/12/1 [Change](#) | [Remove](#)

## Results: 9

- [Rare lung disease II: pulmonary alveolar proteinosis.](#)
  1. Juvet SC, Hwang D, Waddell TK, Downey GP.  
Can Respir J. 2008 May-Jun;15(4):203-10. Review.  
PMID: 18551202 [PubMed - indexed for MEDLINE] **Free PMC Article**
  
- [Successful treatment of congenital pulmonary alveolar proteinosis with intravenous immunoglobulin G administration.](#)
  2. Cho K, Nakata K, Ariga T, Okajima S, Matsuda T, Ueda K, Furuta I, Kobayashi K, Minakami H.  
Respirology. 2006 Jan;11 Suppl:S74-7.  
PMID: 16423278 [PubMed - indexed for MEDLINE]
  
- [\[Congenital pulmonary alveolar proteinosis: a case report\].](#)
  3. Pissarra S, Rocha G, Acevedo I, Guimarães H.  
Acta Med Port. 2005 Mar-Apr;18(2):163-8. Epub 2005 Apr 28. Portuguese.  
PMID: 16202349 [PubMed - indexed for MEDLINE] **Free Article**
  
- [A case of idiopathic pulmonary alveolar proteinosis accompanied by T-cell receptor gene rearrangement in bronchoalveolar lavage fluid cells.](#)
  4. Hosokawa T, Yamaguchi E, Shirai S, Fuke S, Takaoka K, Kojima J, Nakata K, Nishimura M.  
Respirology. 2004 Jun;9(2):286-8.  
PMID: 15182285 [PubMed - indexed for MEDLINE]
  
- [Pulmonary alveolar proteinosis: progress in the first 44 years.](#)
  5. Seymour JF, Presneill JJ.  
Am J Respir Crit Care Med. 2002 Jul 15;166(2):215-35. Review.  
PMID: 12119235 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Analysis of the GM-CSF and GM-CSF/IL-3/IL-5 receptor common beta chain in a patient with pulmonary alveolar proteinosis.](#)
  6. Wang X, Liu F, Bewig B.  
Chin Med J (Engl). 2002 Jan;115(1):76-80.  
PMID: 11930665 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Focal congenital alveolar proteinosis associated with abnormal surfactant protein B messenger RNA.](#)
  7. Mildemberger E, deMello DE, Lin Z, Kössel H, Hoehn T, Versmold HT.  
Chest. 2001 Feb;119(2):645-7.  
PMID: 11171752 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Defective expression of granulocyte-macrophage colony-stimulating factor/interleukin-3/interleukin-5 receptor common beta chain in children with acute myeloid leukemia associated with respiratory failure.](#)
  8. Dirksen U, Hattenhorst U, Schneider P, Schrotten H, Göbel U, Böcking A, Müller KM, Murray R, Burdach S.  
Blood. 1998 Aug 15;92(4):1097-103.  
PMID: 9694696 [PubMed - indexed for MEDLINE] **Free Article**
  
- [Human pulmonary alveolar proteinosis associated with a defect in GM-CSF/IL-3/IL-5 receptor common beta chain expression.](#)
  9. Dirksen U, Nishinakamura R, Groneck P, Hattenhorst U, Noguee L, Murray R, Burdach S.  
J Clin Invest. 1997 Nov 1;100(9):2211-7.  
PMID: 9410898 [PubMed - indexed for MEDLINE] **Free PMC Article**