

# 誰でも出来る簡単 欧州特許庁での特許調査方法

2011年8月

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研究振興支援業務室 高橋 弘

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## はじめに

無料で簡単に外国特許を検索する方法として、欧州特許庁(EPO)のホームページでの検索は身近なものになっています。

以前は有料で提供されていたINPADOCのLegal statusやPatent familyがEPOのホームページで無償で提供されるようになったことも、EPOでの検索意義を大きく高めました。

ここでは、その中でも、簡単に行える、特許(出願)公報番号からの特許(出願)公報の取得、対象特許の法的状況や Patent familyの調査方法を中心に、先行外国特許の調査方法についても簡単に説明します。

2011年3月にEPOの特許検索システムは、10年に一度と思われるほどの大幅なVersion upを行いました(Ver.5)。

以前、Espacenetは欧州特許条約締結国の特許庁をミラーサイトとして使用して、検索の一局集中を避けていましたが、現在は、EPOで直に検索する方が早いようです。また、検索結果のエクセルファイルでのダウンロードも、要約は付きませんが可能となり、その有用性は更に増加しました。

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## 欧州特許庁 ホームページ

The screenshot shows the EPO website homepage. At the top left is the EPO logo and name in German, English, and French. To the right is a search bar with 'Site search' and 'Patent search' tabs, and a URL bar showing 'http://www.epo.org/'. Below the search bar is a navigation menu with links: Home, Searching for patents, Applying for a patent, Law & practice, News & issues, Learning & events. The main content area is divided into several sections: 'Online services' with links for filing, fee payment, register, and representative; 'Before you apply' with links for applying and searching existing patents; 'European Inventor Award 2011' with a 'Read more' link; 'Amendments to the Implementing Regulations' with a link for information on changes; 'Improving the patent system' with a 'President's blog' link; 'Website updates' with a link for the Administrative Council's calendar; 'News' with a link for EPO and Google breaking the language barrier; 'Online services and software' with a link for the central access point; and 'About us' with links for the Office, Organisation, and Jobs. A yellow callout box with a speech bubble points to the 'Searching for patents' link in the navigation menu, containing the text: "Searching for patents" をクリック。

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# I . Espacenet

The screenshot shows the Espacenet homepage. At the top left is the logo of the European Patent Office (EPO) with the text "Europäisches Patentamt", "European Patent Office", and "Office européen des brevets". To the right are search boxes for "Site search" and "Patent search", with a "Search" button. Below these are links for "Deutsch", "English", "Français", "About us", "Contact", and "Service & support".

The main navigation bar includes: Home, Searching for patents, Applying for a patent, Law & practice, News & issues, Learning & events.

The main content area features a large blue banner with the text "Start searching" and "Before you search". Under "Start searching" are links: "European patent register", "European publication server", "Espacenet - worldwide patent search", and "More online searching". Under "Before you search" are links: "Search essentials" and "Patent information tour". A yellow callout box points to "Search essentials" with the text: "“Search essentials”には、Patent family等の有用な情報が記載されています。". Another yellow callout box points to "Espacenet - worldwide patent search" with the text: "特許検索には、“Espacenet”をクリックします。".

On the right side, there is a section for "European Inventor Award 2011" (19 May 2011, Budapest, Hungary) with a "Read more" button and a "Become a Facebook fan" button. Below that is a section for "Improving the patent system" with a "President's blog" button and a photo of a man.

At the bottom, there are four columns: "Website updates" (1.4.2011: The Administrative Council's calendar has been updated; 1.4.2011: Supplement to OJ 3/2011 - Regulation on the European qualifying examination for professional representatives is), "News" (24.3.2011: EPO and Google break the language barrier for Europe's innovators; 10.3.2011: EPO welcomes breakthrough on unitary patent; 8.3.2011: Court of Justice delivers opinion on), "Online services and software" (Your central access point for online tools and software downloads. "Please select" dropdown, "Go" button, "Online Filing availability"), and "About us" (Find out more about the Office, the Organisation and related topics. Links: The Office, The Organisation, Jobs, Statistics, Annual reports, Tenders).

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# I . Espacenet

The screenshot shows the "Free online services" page on Espacenet. At the top left is the EPO logo. To the right are search boxes for "Site search" and "Patent search", with a "Search" button. Below these are links for "Deutsch", "English", "Français", "About us", "Contact", and "Service & support".

The main navigation bar includes: Home, Searching for patents, Applying for a patent, Law & practice, News & issues, Learning & events.

The sub-navigation bar includes: Free online services, Subscription products, Asian patent information, Patent information centres, Essentials.

The breadcrumb trail is: Home → Searching for patents → Free online services → Espacenet - patent search.

The main content area is titled "Espacenet" and "Worldwide patent search". It states: "Espacenet offers free access to more than 70 million patent documents worldwide, containing information about inventions and technical developments from 1836 to today." Below this is a "Direct access" section with three options: "Access Espacenet at the EPO" (Search the EPO's databases in German, English and French. "Open Espacenet at the EPO" button), "Access Espacenet at the European Commission" (Search the EPO's databases in German, English and French. "Open Espacenet at the EC" button), and "Access Espacenet at national and regional offices" (Search using an interface in your language. "Please select" dropdown, "Go" button). A yellow callout box points to the "Open Espacenet at the EPO" button with the text: "“Open Espacenet at the EPO”をクリックします。".

Below the "Direct access" section is a "Getting started" section with links: "An introduction to the database of ideas (360 KB)", "Searching using classifications (600 KB)", and "Access to patents in clean-energy technologies".

At the bottom is an "Editorial" section with the text: "Welcome to the new look Espacenet. Numerically, this is actually version 5 but we don't really know what happened to version 4! Although it looks radically different, Espacenet v.5 delivers the same quality document search service as its predecessor. You'll see that the user interface has been".

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# I. Espacenet 検索方法の選択

Europäisches Patentamt  
European Patent Office  
Office européen des brevets

Deutsch English Français  
Contact  
Change country ▾

← About Espacenet Other EPO online services ▾

Search Result list My patents list (0) Query history Settings Help

**SmartSearch**

Quick search  
Advanced search  
Number search  
Classification search

Maintenance news  
Scheduled maintenance  
Notice to the users of national offices' Espacenet search forms: Please be advised that as of Monday the 2nd of May, a search in the worldwide database will be using the new service at worldwide.espacenet.com rather than v3.espacenet.com → [read more...](#)

News flashes  
Latest updates  
Related links

SmartSearch: i Siemens EP 2007

Welcome to the new look Espacenet.

Numerically, this is actually version 5 but we don't really know what happened to version 4! Although it looks radically different, Espacenet v.5 delivers the same quality document search service as its predecessor. You'll see that the user interface has been completely redesigned, but this is more than just a cosmetic face-lift. We've also taken the chance to improve the lay-out, usability, ergonomics, and navigation, using contemporary design criteria, in consultation with the user community. You'll also notice the new look Espacenet logo.

But new functions and features haven't been forgotten either. In v.5 first release we've included an export-to-Excel function, RSS feeds, breadcrumb navigation, query history, amongst others. These features have been developed and implemented after collecting feedback from you, the users, as always.

For a limited period, v.5 Espacenet will run in parallel with the legacy systems at ep.espacenet.com and v3.espacenet.com, to enable users to become familiar with the new Espacenet v.5. However we expect to turn off the legacy systems in one or two months' time. We recommend that you bookmark the new URLs now. If you're one of the 90% of Espacenet users who access the service directly, <http://worldwide.espacenet.com/> is the URL to remember.

National offices will gradually adopt and customise the new GUI for their own Espacenet instances.

We hope you enjoy searching with the new Espacenet v.5. We thrive on feedback and we'd like to hear yours - tell us what you think about the new Espacenet GUI.

Write to [espacenet@epo.org](mailto:espacenet@epo.org) using the subject GUI

We're waiting to hear from you.

新しいEspacenetには、新たに "Smart Search" が登場しました。  
"Smart Search" は、記載した単語をAND検索しますが、その有用性は未だ不明です。

特許(出願)公報の取得や特定の特許(出願)公報の審査状況(legal status)、他国への出願状況(Patent family)を調べるには、Number searchを用います。  
簡単なキーワードでの検索にはQuick searchを、より高度な検索にはAdvanced searchを、欧州特許分類ECLAを用いる検索には、Classification searchを利用します。

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# I. Espacenet SmartSearch (1)

Europäisches Patentamt  
European Patent Office  
Office européen des brevets

Deutsch English Français  
Contact  
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Number search  
Classification search

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Scheduled maintenance  
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News flashes  
Latest updates  
Related links

SmartSearch: i Siemens EP 2007

polypeptide malaria vaccine

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Write to [espacenet@epo.org](mailto:espacenet@epo.org) using the subject GUI

使用できる単語数は10以下で、単語間は半角空けます。  
例 "polypeptide malaria vaccine" を記入して、Search。

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# I . Espacenet SmartSearch (2)

Europäisches Patentamt  
European Patent Office  
Office européen des brevets

**Espacenet**  
Patent search

Deutsch English Français  
Contact  
Change country

← About Espacenet Other EPO online services

Search Result list My patents list (0) Query history Settings Help

Search → Results page 1

SmartSearch  
Quick search  
Advanced search  
Number search  
Classification search

Quick help

- Can I subscribe to an RSS feed of the result list?
- What does RSS reader do with the result list?
- Can I export the result list?
- What happens if I click on "Download covers"?
- Why is the number of results sometimes approximate?
- Why is the list limited to 500 results?
- Why could it be that a certain patent document is not displayed in the results list?
- Can I sort the result list?
- Why do I sometimes get results having a title which is not in English?
- What happens if I click on the star icon?
- What is an XP document?

Related links

**Result list**

Select all Compact Export (CSV|XLS) Download covers Print

Approximately 44 results found in the Worldwide database for:  
**(txt = polypeptide and txt = malaria) and txt = vaccine** using SmartSearch

Sort by Upload date Sort order Descending Sort

1. **MALARIA/VACCINE OF SELF-ASSEMBLING POLYPEPTIDE NANOPARTICLES**

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
LANAR DAVID [US] BURKHARD PETER [US]	US ARMY AS REPRESENTED BY THE SECRETARY OF THE ARMY [US] LANAR DAVID [US] (+1)	A61K39/015 A61K39/085	A61K39/015 A61K39/38	EP2313108 (A2) 2011-04-27	2008-06-30

2. **Anti-PI332-DBL region monoclonal antibody capable of restraining invasion of plasmodium falciparum**

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
QUJUN CHEN CHENG DU (+3)	UNIV JILIN		A61K39/015 A61P33/06 C07K14/445 (+2)	CN101863970 (A) 2010-10-20	2010-05-18

3. **NOVEL MALARIA VACCINE**

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
HORII TOSHIHIRO [JP] ISHII KEN [JP] (+1)	UNIV OSAKA [JP] HORII TOSHIHIRO [JP] (+2)	A61K39/015 C07K14/445	A61K39/00 A61K39/38 A61P33/06 (+2)	WO2010126151 (A1) 2010-11-04	2009-05-01

4. **POLYPEPTIDES FOR THE PREVENTION OR TREATMENT OF MALARIA**

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
DRUILHE PIERRE [FR] PRIEUR ERIC [FR] (+1)	PASTEUR INSTITUT [FR] DRUILHE PIERRE [FR] (+2)	C07K14/445	A61K39/015 C07K14/445	WO2010097709 (A2) 2010-09-02	2009-02-27

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# I . Espacenet Number search (1)

Europäisches Patentamt  
European Patent Office  
Office européen des brevets

**Espacenet**  
Patent search

Deutsch English Français  
Contact  
Change country

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Classification search

Maintenance news  
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**SmartSearch**

SmartSearch: Siemens EP 2007

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We're waiting to hear from you.

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## I . Espacenet Number search (2)

Europäisches Patentamt  
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Office européen des brevets

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Search Result list My patents list (0) Query history Settings Help

SmartSearch  
Quick search  
Advanced search  
**Number search**  
Classification search

Quick help -  
→ What are publication, application, priority and NPL reference numbers?  
Related links +

### Number search

1. Database  
Select the database in which you wish to search: **i**  
Worldwide - full collection of published patent applications from 80+ countries

2. Enter number  
Enter either application, publication or priority number with or without country code prefix, or NPL reference number

Number: **i** WO2008014520  
**US6248320**

Clear Search

公開番号を記入して、SEARCH。  
例;US6248320

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## I . Espacenet Number search (3)

Europäisches Patentamt  
European Patent Office  
Office européen des brevets

Deutsch English Français  
Contact

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Search Result list My patents list (0) Query history Settings Help

Search → Results

SmartSearch  
Quick search  
Advanced search  
Number search  
Classification search

Quick help -  
→ Can I subscribe to an RSS feed of the result list?  
→ What does RSS reader do with the result list?  
→ Can I export the result list?  
→ What happens if I click on "Download covers"?  
→ Why is the number of results sometimes approximate?  
→ Why is the list limited to 500 results?  
→ Why could it be that a certain patent document is not displayed in the results list?  
→ Can I sort the result list?  
→ Why do I sometimes get results having a title which is not in English?  
→ What happens if I click on the star icon?  
→ What is an XP document?  
Related links +

### Result list

Select all Compact Export (CSV|XLS) Download Print

1 result found in the Worldwide database for:  
**US6248320** as the publication, application, priority or NPL reference number

1. HSV strain lacking functional ICP27 and ICP34.5 genes

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ COFFIN ROBERT STUART [GB] LATCHMAN DAVID SEYMOUR [GB] (+2)	UNIV LONDON [US] UNIV GLASGOW [US]	C07K14/035 C12N15/869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	<b>US6248320</b> (B1) 2001-06-13	1996-07-26

ヒットした公報をクリック。

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## I . Espacenet Number search (4)

US 6248320 (B1)	<b>Bibliographic data: US 6248320 (B1)</b>
<b>Bibliographic data</b>	★ In my patents list → Report data error
Description	<b>HSV strain lacking functional ICP27 and ICP34.5 genes</b>
Claims	<b>Page bookmark</b> <a href="#">US 6248320 (B1) - HSV strain lacking functional ICP27 and ICP34.5 genes</a>
Mosaics	<b>Publication date:</b> 2001-06-19
Original document	<b>Inventor(s):</b> COFFIN ROBERT STUART [GB]; LATCHMAN DAVID SEYMOUR [GB]; MACLEAN ALASDAIR RODERICK [GB]; BROWN SUZANNE MOIRA [GB] ±
INPADOC legal status	<b>Applicant(s):</b> UNIV LONDON [US]; UNIV GLASGOW [US] ±
<b>Quick help</b> —	<b>Classification:</b> - international: <a href="#">A61K35/30</a> ; <a href="#">A61K35/34</a> ; <a href="#">A61K48/00</a> ; <a href="#">A61P25/00</a> ; <a href="#">A61P25/16</a> ; <a href="#">A61P35/00</a> ; <a href="#">C07K14/035</a> ; <a href="#">C12N1/21</a> ; <a href="#">C12N15/00</a> ; <a href="#">C12N15/869</a> ; <a href="#">C12N7/04</a> ; <a href="#">C12R1/01</a> ; (IPC1-7): <a href="#">A01N63/00</a> ; <a href="#">C12N15/00</a> ; <a href="#">C12N7/00</a> ; <a href="#">C12N7/04</a>
→ <a href="#">What does A1, A2, A3 and B stand for after a publication number?</a>	- European: <a href="#">C07K14/035</a> ; <a href="#">C12N15/869H</a> ; <a href="#">C12N7/04</a>
→ <a href="#">What happens if I click on "In my patents list"?</a>	<b>Application number:</b> <a href="#">US19990230479</a> 19990610
→ <a href="#">What happens if I click on the "Register" button?</a>	<b>Priority number(s):</b> GB19960015794 19960726; WO1997GB02017 19970725
→ <a href="#">Why are some sidebar options deactivated for certain documents?</a>	<a href="#">View INPADOC patent family</a>
→ <a href="#">How can I bookmark this page?</a>	<a href="#">View list of citing documents</a>
→ <a href="#">Why does a list of documents with the heading "Also published as" sometimes appear, and what are these documents?</a>	<b>Also published as:</b> <a href="#">WO 9804726 (A1)</a>
→ <a href="#">What is a cited document?</a>	→ <a href="#">NZ 333901 (A)</a>
→ <a href="#">What are citing documents?</a>	→ <a href="#">JP 2000516809 (T)</a>
→ <a href="#">What information will I find if I click on the link "View all"?</a>	<a href="#">EP 0920523 (A1)</a>
→ <a href="#">Why do I sometimes find the abstract of a corresponding document?</a>	<a href="#">EP 0920523 (B1)</a>
→ <a href="#">What happens if I click on the</a>	→ <a href="#">more</a>

**US6248320の書誌事項が表示されます。"Description", "Claims"をクリックすると、「詳細な説明」、「特許請求範囲」が示されます。**

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## I . Espacenet Number search (5)

US 6248320 (B1)	<b>Description: US 6248320 (B1)</b>
Bibliographic data	★ In my patents list → Report data error <a href="#">Print</a>
<b>Description</b>	<b>HSV strain lacking functional ICP27 and ICP34.5 genes</b>
Claims	<b>Description of US 6248320 (B1)</b>
Mosaics	<a href="#">Translate this text</a>
Original document	The EPO does not accept any responsibility for the accuracy of data and information originating from other authorities than the EPO; in particular, the EPO does not guarantee that they are complete, up-to-date or fit for specific purposes.
INPADOC legal status	<b>FIELD OF THE INVENTION</b>
<b>Quick help</b> —	The present invention relates to mutant herpes simplex virus strains which have inactivating mutations rendering them non-pathogenic. It also relates to the use of such mutant HSV strains in gene therapy and in methods of assaying for gene function.
→ <a href="#">What happens if I click on "In my patents list"?</a>	<b>BACKGROUND TO THE INVENTION</b>
→ <a href="#">What happens if I click on the "Register" button?</a>	Herpes simplex virus (HSV) has often been suggested as a suitable vector for the nervous system due to its neurotrophic lifestyle and its ability to remain in neurons for the lifetime of the cell. However wild type HSV is highly pathogenic and must like most viral vectors be disabled in some way. The pathogenic effects of HSV result from lytic infection with the virus and therefore the use of HSV as a vector requires the development of strains carrying mutations that disrupt the lytic cycle whilst allowing the establishment of asymptomatic latent infections. HSV vectors have previously been produced and tested in vivo by the deletion of the essential immediate early (IE) gene ICP4 (Dobson et al., 1990 and Chioocca et al., 1990), which must be complemented for growth in culture. ICP4 is required for transcriptional activation of the viral early and late genes in lytic infection. Thus, a virus lacking this gene can readily establish latent infection of cells but cannot grow lytically.
→ <a href="#">What happens if I click on the button "Translate this text"?</a>	Mutations have also been made in non-essential genes such as the IE gene ICP0, the IE gene ICP6, tyrosine kinase (TK), US5 or VMW65, all of which are required for full pathogenicity in vivo but are dispensable for growth in culture (reviewed by Coffin and Latchman, 1996). These types of mutation provide the added advantage that the deletion need not be complemented for growth in culture which has been shown previously to occasionally result in reversion of the non-pathogenic phenotype to a wild-type phenotype by homologous recombination between the virus and the complementing sequences in the cell-line during growth. However in each of these cases, mutation of the non-essential gene does not completely prevent virus replication since high titre inoculation will overcome the block to replication in vivo.
→ <a href="#">Why is the description sometimes in French or German, or some other language?</a>	
→ <a href="#">How can I search in the text of the description?</a>	
→ <a href="#">Can I download the complete text?</a>	
→ <a href="#">How can I view the chemical structures in the full text?</a>	

**US6248320の"Description"**

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## I . Espacenet Number search (6)

US 6248320 (B1)	<b>Claims: US 6248320 (B1)</b>
Bibliographic data	★ In my patents list → Report data error
Description	
<b>Claims</b>	<b>US6248320の“Claims”</b>
Mosaics	<b>HSV strain lacking functional ICP27 and ICP34.5 genes</b>
Original document	<b>Claims of US 6248320 (B1)</b>
INPADOC legal status	Translate this text Claims tree
<b>Quick help</b>	The EPO does not accept any responsibility for the accuracy of data and information originating from other authorities than the EPO; in particular, the EPO does not guarantee that they are complete, up-to-date or fit for specific purposes.
→ What happens if I click on "In my patents list"?	What is claimed is:
→ What happens if I click on the "Register" button?	1. A herpes simplex virus (HSV) which lacks a functional ICP34.5 gene and a functional ICP27 gene.
→ What happens if I click on the button "Translate this text"?	2. An HSV according to claim 1 which is selected from the group consisting of a mutant HSV-1, a mutant HSV-2 and a HSV-1/HSV-2 recombinant mutant.
→ How can I view the claim structure?	3. The HSV according to claim 2 which carries a heterologous gene operably linked to a sequence that controls expression of said heterologous gene in mammalian cells.
→ Why are the claims sometimes in French or German, or some other language?	4. An HSV according to claim 1 wherein the lack of a functional ICP34.5 gene is due to a deletion or insertion within said gene.
→ How can I search in the text of the claims?	5. An HSV according to claim 1 wherein the lack of a functional ICP27 gene is due to a deletion or insertion within said gene.
→ Can I download the complete text of the claims?	6. An HSV according to claim 1 which further lacks a functional second IE gene other than ICP27.
→ How can I view the chemical structures in the full text?	7. An HSV according to claim 6 wherein said IE gene is ICP4.
	8. The HSV according to claim 7 which carries a heterologous gene operably linked to a sequence that controls expression of said heterologous gene in mammalian cells.
	9. A composition comprising an HSV according to claim 8 together with a carrier or diluent.
	10. The HSV according to claim 6 which carries a heterologous gene operably linked to a sequence that controls expression of said heterologous gene in mammalian cells.

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## I . Espacenet Number search (7)

<p>← About Espacenet Other EPO online services</p> <p>Search Result list My patents list (0) Query history Settings Help</p> <p>Search → Results → US6248320 (B1)</p>	<p><b>Original document: US 6248320 (B1)</b></p> <p>★ In my patents list → Report data error</p> <p><b>HSV strain lacking functional ICP27 and ICP34.5 genes</b></p> <p>Page 1/9 Abstract Bibliography</p> <p>Maximise Download</p>
<p>US 6248320 (B1)</p> <p>Bibliographic data</p> <p>Description</p> <p><b>Claims</b></p> <p>Mosaics</p> <p><b>Original document</b></p> <p>INPADOC legal status</p> <p><b>Quick help</b></p> <p>→ What happens if I click on "In my patents list"?</p> <p>→ What happens if I click on the "Register" button?</p> <p>→ How can I maximise the page view?</p> <p>→ How can I download a document?</p>	<p><b>United States Patent</b> Coffin et al.</p> <p>(10) Patent No.: <b>US 6,248,320 B1</b> (45) Date of Patent: <b>Jun. 19, 2001</b></p> <p>(54) <b>HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES</b></p> <p>(75) Inventors: <b>Robert Stuart Coffin; David Seymour Latchman</b>, both of London; <b>Alasdair Roderick Maclean; Suzanne Moira Brown</b>, both of Glasgow, all of (GB)</p> <p>(73) Assignees: <b>University College London</b>, London; <b>The University Court of the University of Glasgow</b>, Glasgow, both of (GB)</p> <p>(* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.</p> <p>(21) Appl. No.: <b>09/230,479</b> (22) PCT Filed: <b>Jul. 25, 1997</b> (86) PCT No.: <b>PCT/GB97/02017</b> § 371 Date: <b>Jun. 10, 1999</b></p> <p><b>OTHER PUBLICATIONS</b></p> <p>Jain KR, "Vascular and interstitial barriers to delivery of therapeutic agents in tumors". <i>Cancer and Metastasis Review</i> 9; pp. 253-266, 1990.* Orkin et al., Report and recommendations of the panel to assess the NIH investment in research on gene therapy. pp. 1-20, Dec. 1995.* Breakfield et al., "Herpes simplex virus and gene delivery to neurons". <i>The New Biologist</i>, vol. 3, No. 3: pp. 203-218, Mar. 1991.* Samaniego et al., Functional interactions between Herpes Simplex Virus immediate-early proteins during infection: Gene expression as a consequence of ICP27 and different domains of ICP4. <i>Journal of Virology</i> vol. 69, No. 9 : pp. 5705-5715, Sep. 1995.* Smbert et al., "Herpes Simplex Virus VP16 forms a complex with the virion host shutoff protein vhs". <i>Journal of Virology</i> vol. 68, No. 4: pp. 2339-2346, Apr. 1994.* Verma et al., "Gene therapy-promises, problems, and prospects". <i>Nature</i> vol. 389 : pp. 239-242, Sep. 1997.* Anderson WF, "Human gene therapy". <i>Nature</i> vol. 392: pp.</p>

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Document: US 6248320 (B1)

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HSV strain lacking functional ICP27 and ICP34.5 genes

Page 1/9 Abstract Bibliography Maximise Download

**(12) United States Patent**  
Coffin et al.

(10) Patent No.: **US 6,248,320 B1**  
(45) Date of Patent: **Jun. 19, 2001**

(54) HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES

(75) Inventors: Robert Stuart Coffin; David Seymour Latchman, both of London; Alasdair Roderick Maclean; Suzanne Moira Brown, both of Glasgow, all of (GB)

(73) Assignees: University College London, London; The University Court of the University of Glasgow, Glasgow, both of (GB)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

OTHER PUBLICATIONS

Jain KR, "Vascular and interstitial barriers to delivery of therapeutic agents in tumors". Cancer and Metastasis Review 9; pp. 253-266, 1990.\*

Orkin et al., Report and recommendations of the panel to assess the NIH investment in research on gene therapy. pp. 1-20, Dec. 1995.\*

Breakefield et al., "Herpes simplex virus and gene delivery to neurons". The New Biologist, vol. 3, No. 3, pp. 203-218, Mar. 1991.\*

Samaniego et al., Functional interactions between Herpes Simplex Virus immediate-early proteins during infection: C...

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# I. Espacenet Number search (9)

US006248320B1

**(12) United States Patent**  
Coffin et al.

(10) Patent No.: **US 6,248,320 B1**  
(45) Date of Patent: **Jun. 19, 2001**

(54) HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES

(75) Inventors: Robert Stuart Coffin; David Seymour Latchman, both of London; Alasdair Roderick Maclean; Suzanne Moira Brown, both of Glasgow, all of (GB)

(73) Assignees: University College London, London; The University Court of the University of Glasgow, Glasgow, both of (GB)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/230,479**

(22) PCT Filed: **Jul. 25, 1997**

(86) PCT No.: **PCT/GB97/02017**  
§ 371 Date: **Jun. 10, 1999**  
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PCT Pub. Date: **Feb. 5, 1998**

(30) Foreign Application Priority Data  
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(51) Int. Cl.<sup>7</sup> ..... **A01N 63/00; C12N 7/00; C12N 7/04; C12N 15/00**

(52) U.S. Cl. .... **424/93.2; 424/93.3; 435/235.1; 435/236; 435/320.1**

(58) Field of Search ..... 424/93.6; 435/320.1; 514/44

(56) References Cited  
U.S. PATENT DOCUMENTS

OTHER PUBLICATIONS

Jain KR, "Vascular and interstitial barriers to delivery of therapeutic agents in tumors". Cancer and Metastasis Review 9; pp. 253-266, 1990.\*

Orkin et al., Report and recommendations of the panel to assess the NIH investment in research on gene therapy. pp. 1-20, Dec. 1995.\*

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Samaniego et al., Functional interactions between Herpes Simplex Virus immediate-early proteins during infection: C...

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# I . Espacenet Number search (10)

Search → Results → US6248320 (B1)

**INPADOC legal status: US 6248320 (B1)**

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**HSV strain lacking functional ICP27 and ICP34.5 genes**

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Legal status of US6248320 (B1) 2001-06-19:

US	F	23047999 A (Patent of invention)
PRS Date:	1999/06/10	
PRS Code:	AS	
Code Expl:	ASSIGNMENT	
NEW OWNER:	UNIVERSITY COLLEGE LONDON, UNITED KINGDOM	
FURTHER INFORMATION:	ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:COFFIN, ROBERT S.;LATCHMAN, DAVID S.;MACLEAN, ALASDAIR R.;AND OTHERS;REEL/FRAME:010080/0187;SIGNING DATES FROM 19990507 TO 19990514	
PRS Date:	1999/06/10	
PRS Code:	AS	
Code Expl:	ASSIGNMENT	
NEW OWNER:	GLASGOW, UNIVERSITY OF, UNIVERSITY COURT OF THE, T	
FURTHER INFORMATION:	ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:COFFIN, ROBERT S.;LATCHMAN, DAVID S.;MACLEAN, ALASDAIR R.;AND OTHERS;REEL/FRAME:010080/0187;SIGNING DATES FROM	

**Callout text:** “INPADOC legal status”をクリックすると、US6248320の法的状況と譲渡情報が示されます。米国特許の法的状況と譲渡情報のチェックには、米国特許庁の“PAIR”や“AOTW-P”でも調べることをお勧めします。

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Search → Results → US6248320 (B1)

**Bibliographic data: US 6248320 (B1)**

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**HSV strain lacking functional ICP27 and ICP34.5 genes**

Page bookmark US 6248320 (B1) - HSV strain lacking functional ICP27 and ICP34.5 genes

Publication date: 2001-06-19

Inventor(s): COFFIN ROBERT STUART [GB]; LATCHMAN, DAVID S.; SEYMOUR [GB]; MACLEAN ALASDAIR RODERICK [GB]; BROWN SUZANNE MOIRA [GB] ±

Applicant(s): UNIV LONDON [US]; UNIV GLASGOW [UK]

Classification: - International: A61K35/30; A61K35/50; A61K48/00; A61P25/00; A61P25/16; A61P35/00; C07K14/035; C12N1/21; C12N1/30; C12N1/35; C12N1/36; C12N1/37; C12N1/38; C12N1/39; C12N1/40; C12N1/41; C12N1/42; C12N1/43; C12N1/44; C12N1/45; C12N1/46; C12N1/47; C12N1/48; C12N1/49; C12N1/50; C12N1/51; C12N1/52; C12N1/53; C12N1/54; C12N1/55; C12N1/56; C12N1/57; C12N1/58; C12N1/59; C12N1/60; C12N1/61; C12N1/62; C12N1/63; C12N1/64; C12N1/65; C12N1/66; C12N1/67; C12N1/68; C12N1/69; C12N1/70; C12N1/71; C12N1/72; C12N1/73; C12N1/74; C12N1/75; C12N1/76; C12N1/77; C12N1/78; C12N1/79; C12N1/80; C12N1/81; C12N1/82; C12N1/83; C12N1/84; C12N1/85; C12N1/86; C12N1/87; C12N1/88; C12N1/89; C12N1/90; C12N1/91; C12N1/92; C12N1/93; C12N1/94; C12N1/95; C12N1/96; C12N1/97; C12N1/98; C12N1/99; C12N1/100; C12N1/101; C12N1/102; C12N1/103; C12N1/104; C12N1/105; C12N1/106; C12N1/107; C12N1/108; C12N1/109; C12N1/110; C12N1/111; C12N1/112; C12N1/113; C12N1/114; C12N1/115; C12N1/116; C12N1/117; C12N1/118; C12N1/119; 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C12N1/666; C12N1/667; C12N1/668; C12N1/669; C12N1/670; C12N1/671; C12N1/672; C12N1/673; C12N1/674; C12N1/675; C12N1/676; C12N1/677; C12N1/678; C12N1/679; C12N1/680; C12N1/681; C12N1/682; C12N1/683; C12N1/684; C12N1/685; C12N1/686; C12N1/687; C12N1/688; C12N1/689; C12N1/690; C12N1/691; C12N1/692; C12N1/693; C12N1/694; C12N1/695; C12N1/696; C12N1/697; C12N1/698; C12N1/699; C12N1/700; C12N1/701; C12N1/702; C12N1/703; C12N1/704; C12N1/705; C12N1/706; C12N1/707; C12N1/708; C12N1/709; C12N1/710; C12N1/711; C12N1/712; C12N1/713; C12N1/714; C12N1/715; C12N1/716; C12N1/717; C12N1/718; C12N1/719; C12N1/720; C12N1/721; C12N1/722; C12N1/723; C12N1/724; C12N1/725; C12N1/726; C12N1/727; C12N1/728; C12N1/729; C12N1/730; C12N1/731; C12N1/732; C12N1/733; C12N1/734; C12N1/735; C12N1/736; C12N1/737; C12N1/738; C12N1/739; C12N1/740; C12N1/741; C12N1/742; C12N1/743; C12N1/744; C12N1/745; C12N1/746; C12N1/747; C12N1/748; C12N1/749; C12N1/750; C12N1/751; C12N1/752; C12N1/753; C12N1/754; C12N1/755; C12N1/756; 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C12N1/1112; C12N1/1113; C12N1/1114; C12N1/1115; C12N1/1116; C12N1/1117; C12N1/1118; C12N1/1119; C12N1/1120; C12N1/1121; C12N1/1122; C12N1/1123; C12N1/1124; C12N1/1125; C12N1/1126; C12N1/112

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Search → Results → US6248320 (B1) → Family

Family list

10 application(s) for: US6248320 (B1)

Sort by: Priority date | Sort order: Descending

Item	Inventor	Applicant	EC	IPC	Publication info	Priority date
1. HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	★ Coffin Robert Stuart UCL Medic Cleveland Street [GB] (+4)	Univ London [GB] Univ Glasgow [GB]	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AT251672 (T) 2003-10-15	1996-07-26
2. HSV strain lacking functional ICP27 and ICP34.5 Genes	★ Coffin Robert Stuart Latchman Seymour David (+2)	Univ London Univ Glasgow	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AU726645 (B2) 2000-11-16	1996-07-26
3. Hsv strain lacking functional icp27 and icp34.5 genes	★ Coffin Robert Stuart Latchman Seymour David (+2)	Medical Res Council	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AU3700797 (A) 1998-02-20	1996-07-26
4. HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	★ Latchman David Seymour [GB] Brown Suzanne Moira [GB] (+2)	Medical Res Council [GB]	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+15)	CA2262010 (A1) 1998-02-05 CA2262010 (C) 2010-08-31	1996-07-26

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# I. Espacenet Number search (13)

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Search → Results → US6248320 (B1) → Family

Family list

10 application(s) for: US6248320 (B1)

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Item	Inventor	Applicant	EC	IPC	Publication info	Priority date
1. HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	★ Coffin Robert Stuart UCL Medic Cleveland Street [GB] (+4)	Univ London [GB] Univ Glasgow [GB]	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AT251672 (T) 2003-10-15	1996-07-26
2. HSV strain lacking functional ICP27 and ICP34.5 Genes	★ Coffin Robert Stuart Latchman Seymour David (+2)	Univ London Univ Glasgow	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AU726645 (B2) 2000-11-16	1996-07-26
3. Hsv strain lacking functional icp27 and icp34.5 genes	★ Coffin Robert Stuart Latchman Seymour David (+2)	Medical Res Council	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+13)	AU3700797 (A) 1998-02-20	1996-07-26
4. HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	★ Latchman David Seymour [GB] Brown Suzanne Moira [GB] (+2)	Medical Res Council [GB]	C07K14/035 C12N15/0869H (+1)	A61K35/30 A61K35/34 A61K48/00 (+15)	CA2262010 (A1) 1998-02-05	1996-07-26

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# I . Espacenet Number search (14)

Title	Publication number	Publication date	Inventor(s)	Applicant(s)	International classification	European classification	Application number	Date of application	Priority number(s)	PATENTS CITED IN THE SEARCH	LITERATURE CITED IN THE SEARCH	PATENTS CITED DURING EXAMINATION	LITERATURE CITED DURING EXAMINATION
HSV STRAIN LACKING FUNCTIONAL	AT251672 (T)	2003/10/15	COFFIN ROBERT STUART	UNIV LONDON [GB], UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	AT19970933 762T	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV strain lacking functional	AU726645 (B2)	2000/11/16	COFFIN ROBERT STUART	UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	AU19970037 007	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
Hsv strain lacking functional	AU3700797 (A)	1998/2/20	COFFIN ROBERT STUART	MEDICAL RES COUNCIL	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	AU19970037 007D	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV STRAIN LACKING FUNCTIONAL	CA2262010 (A1)	1998/2/5	LATCHMAN DAVID SEYMOUR	MEDICAL RES COUNCIL	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	CA19972262 010	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV STRAIN LACKING FUNCTIONAL	DE69725452 (T2)	2004/8/19	COFFIN ROBERT STUART	UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	DE19976025 452T	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV STRAIN LACKING FUNCTIONAL	EP0920523 (A1)	1999/6/9	COFFIN ROBERT STUART	MEDICAL RES COUNCIL	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	EP19970933 762	19970725	WO1997GB0 2017; 19970726; WO9204050 (A1)	EP0453242 (A1); WO9204050 (A1)	XP00025590 7		
HSV STRAIN LACKING FUNCTIONAL	JP20005168 09 (T)	2000/12/19			C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	JP19980508 602T	19970725	WO1997GB0 2017; 19970726; WO9204050 (A1)				
Herpes simplex virus (HSV)	NZ333901 (A)	2001/5/25	COFFIN ROBERT STUART	UNIV LONDON; UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	NZ19970333 901	19970725	GB19960015 794; 19960726; WO9204050 (A1)				
HSV strain lacking functional	US6248320 (B1)	2001/6/19	COFFIN ROBERT STUART	UNIV LONDON [US], UNIV COLLEGE LONDON	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	US19990230 479	19990610	GB19960015 794; 19960726; WO9204050 (A1)	US5328688 (A)			
HSV STRAIN LACKING FUNCTIONAL	WO9804726 (A1)	1998/2/5	COFFIN ROBERT STUART	MEDICAL RES COUNCIL	C12N15/00; A61K35/30; A61K35/34; A61K35/36	C07K14/035; C12N7/04; C12N15/869	WO1997GB0 2017	19970725	GB19960015 794; 19960726; WO9204050 (A1)	EP0453242 (A1); WO9204050 (A1)	XP00025590 7		

US6248320のINPADOC Patent familyをCSVでダウンロードし、Excel形式にしたもの

# I . Espacenet Number search (15)

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Search → Results → US6248320 (B1) → Family → EP0920523 (A1)

**INPADOC legal status: EP 0920523 (A1)**

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**HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES**

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Legal status of EP0920523 (A1) 1999-06-09; EP0920523 (B1) 2003-10-08:

EP	F	97933762 A	(Patent of invention)
PRS Date :		1999/06/09	
PRS Code :		AK	
Code Expl.:		+ DESIGNATED CONTRACTING STATES:	
KD OF CORRESP. PAT.:		A1	
DESIGNATED COUNTR.:		AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE	
PRS Date :		1999/06/09	
PRS Code :		17P	
Code Expl.:		+ REQUEST FOR EXAMINATION FILED	
EFFECTIVE DATE :		19990223	
PRS Date :		1999/11/17	
PRS Code :		RAP1	
Code Expl.:		TRANSFER OF RIGHTS OF AN EP APPLICATION	
NEW OWNER :		UNIVERSITY COLLEGE, LONDON	
PRS Date :		1999/11/17	
PRS Code :		RAP1	

US6248320のEP特許出願をクリックし、その“INPADOC legal status”をクリックすると、欧州特許の法的状況が確認できます。

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## I . Espacenet Quick search (2)

The screenshot shows the Espacenet Patent search interface with a more complex search term entered. The search term is: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and hair. Three yellow callouts provide additional information: 1. "ここでは、US6248320に関連した特許を検索してみます。検索対象の特許は、通常は、デフォルトのworldwideです。" (Here, we search for patents related to US6248320. The search target patents are, by default, worldwide.) 2. "タイトルと要約中の言葉を検索します。" (Search for words in the title and abstract.) 3. "And, or, not, ( )等の通常の検索に使うBoolean演算子、トランケーションを用いて検索式を入力することが出来ます。検索例 ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)" (Boolean operators and truncation can be used to enter search formulas. Search example: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)).

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# I. Espacenet Quick search (3)

**ウィルスの種類と用途を絞った検索で、61件がヒットしました。重複を避けるために、1つのPatent familyに表示される公報は1件に限られています。Patent familyを表示させるには、各公報の“Also published as” or “View INPADOC patent family”を参照します。検索は10万件まで可能ですが、リストが表示されるのは500件までで、かつ1画面に15件づつです。**

Approximately 61 results found in the Worldwide database for: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
MACLEAN ALASDAIR RODERICK [GB] BROWN SUSANNE MOIRA [GB] (+2)	CRUSADE LAB LTD [GB] WISTAR INST [US]	A61K35/76 C12N7/00	A61K35/76 A61P35/00 A61P35/04 (+5)	US2010172872 (A1) 2010-07-08	1994-07-29
CONNER JOE [GB] BROWN SUSANNE MOIRA [GB] (+2)	RUIFA HAN YU LEI (+1)	C07K14/47A1A C12N15/869	A61K39/245 C07K14/47 C12N15/869 (+1)	GB2448721 (A) 2008-08-20	2007-02-16

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# I. Espacenet Quick search (4)

**"Export (CSV)"により検索結果をダウンロードすることが可能になりましたが、表示されたページ毎でしか、ダウンロード出来ないのが、多数データのダウンロードは大変です。**

Approximately 57 results found in the Worldwide database for: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
JUNG JAE HUN [KR] KIM CHUL WOO [KR] (+1)	KIM CHUL WOO [KR]	A61K48/00 C12N15/79	A61K48/00 C12N15/79 (IPC: 7); A61K48/00	KR20030008545 (A) 2003-01-29	2001-07-18
VALERIE KRISTOFFER C [US]	VALERIE KRISTOFFER C	A61K31/522 C12N9/12B1B21	A61K31/522 C12N9/12 A61K48/00 (+2)	US2001046491 (A1) 2001-11-29	2000-03-23
COFFIN ROBERT STUART [GB]	BIOVEK LTD [GB] COFFIN ROBERT STUART [GB]	A61K35/76 C12N15/869H (+1)	A61K31/7105 A61K35/76 A61K38/00 (+18)	WO0153506 (A2) 2001-07-26 WO0153506 (A3) 2002-05-23	2000-01-21
COFFIN ROBERT	BIOVEK LTD [GB]	C12N15/869H	A61K35/76	MXPA00011346 (A)	1998-05-20

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# I . Espacenet Quick search (5)

Europäisches Patentamt  
European Patent Office  
Office européen des brevets

**Espacenet**  
Patent search

Result list

Export (CSV|XLS)

Approximately 57 results found in the Worldwide database for:  
("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract

Sort by Upload date Sort order Descending

1. Treatment of Cancer Using HSV Mutant  
★ Publication info: US2010172872 (A1) 2010-07-08
2. Bi-target treatment for bladder cancer by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide gene HSV-TK  
★ Publication info: CN101810865 (A) 2010-08-25
3. SYNTHETIC HERPES SIMPLEX VIRUSES TYPE-1 FOR TREATMENT OF CANCERS  
★ Publication info: WO2008141151 (A2) 2008-11-20

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# I . Espacenet Quick search (6)

	A	B	C	D	E	F	G	H	I	J	K	L
1	Title	Publication number	Publication date	Inventor(s)	Applicant(s)	International classification	European classification	Application number	Date of application	Priority number(s)	PATENTS CITED IN	LITERATURE CITED IN
11	Method For Constructing Recombinant Herpes Mutant	US2007196336 (A1)	2007/8/23	TODD TOMDKI (US)		A61K48/00; A61K35/76; A61P35/00	A61K35/76; C12N7/00; C12N15/869	US20050694962	20050331	JP20040106273		
12	Mutant herpes simplex viruses and An herpes simplex virus complex	US20040663094 (A1)	2004/4/1	COFFIN ROBERT SCHWARTZ	BIOMEX LTD (GB)	C12N15/869; C12N1/73; C12N15/869	C12N15/869; H	US20030668164	20030824	US20030668164		
13	ADENOVIRUS VECTOR WITH THE ONCOGENE	GB2386895 (A)	2003/10/1	BROWN SUSANNE MORIA (GB)	CRUSADE LAB LTD (GB)	C12N15/09; A61K35/76; A61K47/48	C07K14/006	GB20030003188	20030212	GB20030003285	GB2374873 (A)	
14	METHODS FOR VIRAL ONCOAPOPTOSIS IN CANCER THERAPY	US2002187170 (A1)	2002/12/12	BLAND JOHN A (US)	SINA SCHOOL OF MEDICINE	A61K48/00; C12N1/73; C12N15/869	A61K48/000; C07K14/006	US200201655				
15	Herpes simplex virus type 1 (HSV-1)-based oncoapoptosis	US2002098170 (A)	2002/7/25	WECHSLER STEVEN L (US)	WECHSLER STEVEN L (US)	A61P35/00; C07K14/035; C12N7/04; C12N15/869	C07K14/035; C12N7/04; C12N15/869	US200100481				
16	METHOD FOR GENE THERAPY OF CANCER USING CO-RECEPTORS	KR20030008545 (A)	2003/1/29	JUNG JAE HUN (KR); KIM CHUL WOO (KR)	KIM CHUL WOO (KR)	A61K48/00; C12N15/79; A61K48/00		KR20010043237		20010043237		
17	Tumor radiosensitization with recombinant Herpesvirus STRAINS	US2001046491 (A1)	2001/11/29	VALERIE KRISTOFFE (FR)	VALERIE KRISTOFFE (FR)	A61K31/522; C12N8/12; A61K48/00; C12N1/73; A61K48/00	A61K31/522; C12N8/12; C12N1/73; A61K48/00	US200100558	20010323	US200100558		
18	MUTANT HERPES SIMPLEX VIRUSES AND USE THEREOF	WO0153506 (A2)	2001/7/26	COFFIN ROBERT SCHWARTZ	BIOMEX LTD (GB)	A61K31/710; C12N7/04; A61K35/76; A61P35/00	C12N7/04; A61K35/76; A61P35/00	US20010080229	20010129	US20010080229	US5876923 (A)	XP002090032
19	MUTANT HERPES SIMPLEX VIRUSES AND USE THEREOF	MXPA00011345 (A)	2003/5/19	COFFIN ROBERT SCHWARTZ	BIOMEX LTD (GB)	A61K31/522; C12N7/04; A61K35/76; A61P35/00	C12N7/04; A61K35/76; A61P35/00	MX2000PA11346	20001117	GB1998010904		
20	A medication comprising a recombinant virus	GB2397063 (A)	2004/7/14	LOWENSTEIN FREDRO (US)	CEDARS SINA MEDICAL CENTER	A61K48/00; C12N15/73; A61K48/00	A61K48/000	US20040006539	20001023	GB20000025890	WO9509654 (A)	MO9507722
21	RETROVIRUS VECTOR COMPOSING TISSUE ENZYME /PRODRUG SYSTEM OF CD5-EGFP AND CD4	KR20020007495 (A)	2002/1/29	KIM HWAN MUK (KR); KIM JUNG WOOK (KR)	GENE RESEARCH CENTER	C12N15/867; C12N15/869		KR200000040545	20000714	KR200000040545		
22	ENZYMIC /PRODRUG SYSTEM OF CD5-EGFP AND CD4	KR2001006682 (A)	2001/7/11	GILBERT JEFFREY (US); KIM JUNG WOOK (KR)	KIM JAE HO (US); LEW JUNG WOOK (KR)	C12N7/00; C12N7/00		KR200000037582	20000701	KR200000037582		
23	Treatment of cancer using HSV mutant	AL4872039 (A)	2003/6/8	MACLEOD ALASDAIR ROBERT	MEDICAL RESOURCES COUNCIL	A61K39/245; A61K39/245		ALI199900487200	19990815	ALI199900487200		
24	HSV strain lacking functional ICP27 and ICP28	US6248320 (B1)	2001/6/19	COFFIN ROBERT SCHWARTZ	UNIV LONDON	C12N15/00; A61K35/76; A61P35/00	C07K14/035; C12N7/04; C12N15/869	US19990230479	19990610	GB19960015794	US5328688 (A)	
25	Method of treating tumorigenic disease	US6340673 (B1)	2002/1/22	ROIZMAN BERNARD (US); CHU WU XIAOBING	ARCH DEV CORP (US)	A61K38/16; A61K39/245	GO1N33/50; D2E; A61K39/245	US19990283471	19990401	US19990283471		
26	Construction and use of plasmid type	CN1248627 (A)	2000/3/29	WU XIAOBING	NAT KEY LAB OF	C12N7/01; C12N15/64		CN19981020032	19980924	CN19981020032		

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## I . Espacenet Quick search (7)

The screenshot shows the Espacenet search results page. A yellow callout box points to the 'Select all' checkbox, stating: "「Select all」をクリックして、「Download covers」をクリックすると、各公報の最初のページがPDFでダウンロードできるので、要約を入手出来ますが、これも表示ページ毎にダウンロードする必要があります。"

Another yellow callout box points to the search results, stating: "一度内容を確認すると色が変わって履歴が残ります。また、ヒットした検索語がハイライトされています。"

The search results are as follows:

Item	Publication info	Date
1. Treatment of <b>Cancer</b> Using <b>HSV</b> /Mutant	US2010172872 (A1)	2010-07-08
2. Bi-target treatment for bladder <b>cancer</b> by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide gene <b>HSV-TK</b>	CN101810865 (A)	2010-08-25
3. <b>SYNTHETIC HERPES SIMPLEX VIRUSES TYPE-1 FOR TREATMENT OF CANCERS</b>	WO2008141151 (A2)	2008-11-20
4. Herpes Simplex Virus comprising an <b>ING4</b> polypeptide	GB2446721 (A)	2008-08-20
5. TREATMENT OF NON-NEURONAL <b>CANCER</b> USING <b>HSV-1</b> VARIANTS	US2007292394 (A1)	2007-12-20

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## I . Espacenet Quick search (8)

The screenshot shows the Espacenet verification page with a captcha. A yellow callout box points to the captcha, stating: "公報のダウンロードと同様に、ポップアップした画面で、読めた数字を入力して、Submit。"

The captcha image shows the digits: 05 57 24. The input field contains the text: 065724.

The search results are as follows:

Item	Publication info	Date
1. Treatment of <b>Cancer</b> Using <b>HSV</b> /Mutant	US2010172872 (A1)	2010-07-08
2. Bi-target treatment for bladder <b>cancer</b> by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide gene <b>HSV-TK</b>	CN101810865 (A)	2010-08-25
3. <b>SYNTHETIC HERPES SIMPLEX VIRUSES TYPE-1 FOR TREATMENT OF CANCERS</b>	WO2008141151 (A2)	2008-11-20
4. Herpes Simplex Virus comprising an <b>ING4</b> polypeptide	GB2446721 (A)	2008-08-20
5. TREATMENT OF NON-NEURONAL <b>CANCER</b> USING <b>HSV-1</b> VARIANTS	US2007292394 (A1)	2007-12-20

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## I . Espacenet Quick search (9)

61件の検索結果の最初のページに表示された30件をPDFダウンロードしたものです。

### Espacenet search results on 07-05-2011 16:01

Results page 1  
Approximately 57 results found in the Worldwide database  
("herpes simplex" or HSV) and (gene or recombinant or mutant or mutant\*) and (nervous or cancer) in the title or abstract

Publication	Title	Page
US2010172872 (A1)	Treatment of Cancer Using HSV Mutant	2
CN101810865 (A)	Bi-target treatment for bladder cancer	3
WO2008141151 (A2)	SYNTHETIC HERPES SIMPLEX VIRUSES TYPE...	4
GB2446721 (A)	Herpes Simplex Virus comprising an IN...	5
US2007292394 (A1)	TREATMENT OF NON-NEURONAL CANCER USING...	6
KR100829450 (B1)	RECOMBINANT VECTOR EXPRESSING SHRNA F...	7
JP2006335763 (A)	METHOD AND COMPOSITION FOR GENE, TUMOR...	8
WO2007002373 (A2)	USE OF MUTANT HERPES SIMPLEX VIRUS-2 ...	9
US2005226850 (A1)	Treatment of non-neuronal cancer using...	10
US2007196336 (A1)	Method For Constructing Recombinant H...	11
US2004063094 (A1)	Mutant herpes simplex viruses and use...	12
GB2386895 (A)	An herpes simplex virus complex	13
KR20040002322 (A)	ADENOVIRUS VECTOR WITH TELOMERASE PRO...	14
US2002187126 (A1)	Methods for viral oncoapoptosis in ca...	15
US2002098170 (A1)	Herpes simplex virus type 1 ( HSV-1)-...	16
KR20030008545 (A)	METHOD FOR GENE THERAPY OF CANCER USING...	17
US2001046491 (A1)	Tumor radiosensitization with mutant ...	18
WO0153506 (A2)	VIRUS STRAINS	19
MXPA00011346 (A)	MUTANT HERPES SIMPLEX VIRUSES AND USE...	20
GB2397063 (A)	A medicament comprising a cytotoxic p...	21

しよりの公報をクリックすると、その公報のフロントページが開きます。

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## I . Espacenet Quick search (10)

US 20100172872A1

(19) **United States**  
(12) **Patent Application Publication** (10) **Pub. No.: US 2010/0172872 A1**  
**MacLean et al.** (43) **Pub. Date: Jul. 8, 2010**

(54) **TREATMENT OF CANCER USING HSV MUTANT**

(75) **Inventors:** Alasdair Roderick MacLean, Glasgow (GB); Susanne Moira Brown, Glasgow (GB); Nigel William Fraser, Philadelphia, PA (US); Bruce Paul Randazzo, Philadelphia, PA (US)

(63) Continuation of application No. 11/152,591, filed on Jun. 13, 2005, now Pat. No. 7,674,468, which is a continuation of application No. 08/776,350, filed on Apr. 18, 1997, now abandoned, filed as application No. PCT/GB95/01791 on Jul. 28, 1995.

(30) **Foreign Application Priority Data**  
Jul. 29, 1994 (GB) ..... 9415320.2

**Publication Classification**

(51) **Int. Cl.**  
A61K 35/76 (2006.01)  
A61P 35/00 (2006.01)  
A61P 35/04 (2006.01)

(52) **U.S. Cl.** ..... 424/93.2

(57) **ABSTRACT**  
Use as an anti-cancer agent of a mutant herpes simplex virus wherein the mutant virus comprises a modification in the γ34.5 gene in the long repeat region (R<sub>L</sub>) such that the γ34.5 gene is a non-functional, manufacture of medicaments and methods of testing cancer in mammals employing HSV mutant.

(73) **Assignees:** CRUSADE LABORATORIES LIMITED, Glasgow (GB); THE WISTAR INSTITUTE, Philadelphia, PA (US)

(21) **Appl. No.:** 12/692,347

(22) **Filed:** Jan. 22, 2010

要約を読むことができます。

Export (CSV)によりダウンロードしたリストと併せれば、検索結果リストを作成することが出来ます。

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## I . Espacenet トランケーション

Quick SearchやAdvanced Searchの検索式作成に際して、検索範囲を拡大するために、複数形や語尾変化に対応した各種のトランケーション(前方一致、左方一致)を用いることが出来ます。下記の3種類のワイルドカードが使用可能です。

\*: 如何なる長さの語句にも使用可能 (インターネットの一般的なトランケーション)

?: ゼロ又は1語

# : 厳密に1語

(検索例)

mutation:9620 → mutat\*:19815

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## I . Espacenet Advanced search (1)

Patentamt  
European  
Patent Office  
Office européen  
des brevets

**Espacenet**  
Patent search

“Advanced search”はキーワードと共に IPC  
コード又はECLAコード等の特許分類を用いる  
ことが出来ます。

← About Espacenet Other EPO online services ▾

Search Result list My patents list (0) Query My patents list Settings Help

SmartSearch  
Quick search  
**Advanced search**  
Number search  
Classification search

Quick help -

→ [How many terms can I enter per field?](#)  
→ [Can I search with a combination of words?](#)  
→ [Can I use truncation or wildcards?](#)  
→ [How do I enter publication, application, priority and NPL reference numbers?](#)  
→ [What is the difference between the IPC and the ECLA?](#)  
→ [What are the valid date formats?](#)  
→ [What are the admissible entries for a date range search?](#)

Related links +

**Advanced search**

**1. Database**  
Select the database in which you wish to search: **i**  
Worldwide - full collection of published patent applications from 80+ countries

**2. Search terms**  
Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title: **i** plastic and bicycle

Keyword(s) in title or abstract: **i** hair

Publication number: **i** WO2008014520

Application number: **i** DE19971031696

Priority number: **i** WO1995US15925

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## I. Espacenet Advanced search (2)

**1. Database**  
 Select the database in which you wish to search:

**2. Search terms**  
 Enter keywords in English - ctrl-enter expands the search

Keyword(s) in title:

Keyword(s) in title or abstract:

Publication number:

Application number:

Priority number:

Publication date:

Applicant(s):

Inventor(s):

European Classification (ECLA):

International Patent Classification (IPC):

キーワード検索は、通常、“Keyword in title or abstract”で検索します。  
 入力可能な単語数はQuick searchと同じく10以下です。  
 Advanced Searchでは、複数の検索項目で条件設定が可能です。

ECLA code 検索

IPC code検索

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## I. Espacenet Advanced search (3)

Quick search

**Advanced search**

Number search

Classification search

---

Quick help

→How many terms can I enter per field?

→Can I search with a combination of words?

→Can I use truncation or wildcards?

→How do I enter publication, application, priority and NPL reference numbers?

→What is the difference between the IPC and the ECLA?

→What are the valid date formats?

→What are the admissible entries for a date range search?

---

Related links

**1. Database**  
 Select the database in which you wish to search:

**2. Search terms**  
 Enter keywords in English - ctrl-enter expands the search

Keyword(s) in title:

Keyword(s) in title or abstract:

Publication number:

Application number:

Priority number:

Publication date:

Applicant(s):

Inventor(s):

European Classification (ECLA):

International Patent Classification (IPC):

検索例 Quick searchと同じキーワード  
 (“herpes simplex” or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) を入力してsearch。

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# I. Espacenet Advanced search (4)

Quick searchと同じ61件がヒットしました。

Result list

Approximately 61 results found in the Worldwide database for:  
 ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract

Sort by: Upload date Sort order: Descending

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ MACLEAN ALASDAIR Roderick [GB] BROWN SUSANNE MOIRA [GB] (+2)	CRUSADE LAB LTD [GB] WISTAR INST [US]	A81K35/76 C12N7/00	A81K35/76 A81P35/00 A81P35/04 (+5)	US2010172872 (A1) 2010-07-08	1994-07-29
★ RUIFA HAN	RUIFA HAN YU LEI (+1)		A81K35/76 A81K48/00 A81P35/00	CN101810865 (A) 2010-08-25	2009-09-27
★ KOUSOULAS KONSTANTIN G [US]	UNIV LOUISIANA STATE [US] KOUSOULAS KONSTANTIN G [US]	A81K35/76 C07K14/035 (+1)	C12N7/00	WO2008141151 (A2) 2008-11-20 WO2008141151 (A3) 2009-08-27	2007-05-09

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# I. Espacenet Advanced search (5)

2. Search terms

Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title: **i** plastic and bicycle

Keyword(s) in title or abstract: **i** hair  
 ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and

Publication number: **i** WO2008014520

Application number: **i** DE19971031696

Priority number: **i** WO1995US15925

Publication date: **i** 2009:2010 yyyymmdd

Applicant(s): **i** Institut Pasteur

Inventor(s): **i**

European Classification (ECLA): **i**


International Patent Classification (IPC): **i** H03M1/12



Clear Search

同じキーワードでの検索を公報公開期間を指定して検索。  
 例 2009:2010  
 以前は、20090101:20101122が可能でしたが、現在は月日を入力するとエラーに成りやすいのでご注意ください。

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## I. Espacenet Advanced search (6)

**Result list** 

Select all    Compact    Export (CSV|XLS)

4 results found in the Worldwide database for:  
 ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract AND 2009:2010 as the publication date

Sort by:    Sort order:   

1. **Treatment of Cancer Using HSV Mutant**

★ <b>Inventor:</b> MACLEAN ALASDAIR RODERICK [GB] BROWN SUSANNE MOIRA [GB] (+2)	<b>Applicant:</b> CRUSADE LAB LTD [GB] WISTAR INST [US]	<b>EC:</b> <a href="#">A61K35/76</a> <a href="#">C12N7/00</a>	<b>IPC:</b> A61K35/76 A61P35/00 A61P35/04 (+5)	<b>Publication info:</b> US2010172872 (A1) <b>2010</b> -07-08	<b>Priority date:</b> 1994-07-29
---	---	---	---	---	-------------------------------------

2. **Bi-target treatment for bladder cancer by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide gene HSV-TK**

★ <b>Inventor:</b> RUIFA HAN	<b>Applicant:</b> RUIFA HAN YU LEI (+1)	<b>EC:</b>	<b>IPC:</b> A61K35/76 A61K48/00 A61P35/00	<b>Publication info:</b> CN101810865 (A) <b>2010</b> -08-25	<b>Priority date:</b> 2009-09-27
---------------------------------	---	------------	--	---	-------------------------------------

3. **Synthetic Herpes Simplex Viruses Type-1 for Treatment of Cancers**

★ <b>Inventor:</b> KOUSOULAS KONSTANTIN G [US]	<b>Applicant:</b>	<b>EC:</b> <a href="#">A61K35/76</a> <a href="#">C07K14/035</a> (+1)	<b>IPC:</b> A61K35/76 A61P35/00 C12N15/63 (+1)	<b>Publication info:</b> US2010297085 (A1) <b>2010</b> -11-25	<b>Priority date:</b> 2007-05-09
---	-------------------	---	---	---	-------------------------------------

4. **Use of Mutant Herpes Simplex Virus-2 for Cancer Therapy**

期間を限定したため、4件がヒットしました。同じ検索式で、検索期間を変えて、新しい特許のみを定期的に検索することが可能です。

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## I. Espacenet Advanced search (7)

<p>SmartSearch</p> <p>Quick search</p> <p><b>Advanced search</b></p> <p>Number search</p> <p>Classification search</p> <hr/> <p><b>Quick help</b> -</p> <p>→ How many terms can I enter per field?</p> <p>→ Can I search with a combination of words?</p> <p>→ Can I use truncation or wildcards?</p> <p>→ How do I enter publication, application, priority and NPL reference numbers?</p> <p>→ What is the difference between the IPC and the ECLA?</p> <p>→ What are the valid date formats?</p> <p>→ What are the admissible entries for a date range search?</p> <hr/> <p><b>Related links</b> +</p>	<p><b>Advanced search</b></p> <p><b>1. Database</b></p> <p>Select the database in which you wish to search: <input type="text" value="i"/>        Worldwide - full collection of published patent applications from 80+ countries</p> <p><b>2. Search terms</b></p> <p>Enter keywords in English - ctrl-enter expands the field you are in</p> <p>Keyword(s) in title: <input type="text" value="i"/> plastic and bicycle</p> <p>Keyword(s) in title or abstract: <input type="text" value="i"/> hair        ("herpes simplex" or HSV) and (gene or recombin* or mutant or mutat*) and</p> <p>Publication number: <input type="text" value="i"/> WO2008014520</p> <p>Application number: <input type="text" value="i"/> DE19971031696</p> <p>Priority number: <input type="text" value="i"/> WO1995US15925</p> <p>Publication date: <input type="text" value="i"/> yyyymmdd        20090215:20110509</p> <p>Applicant(s): <input type="text" value="i"/> Institut Pasteur</p> <p>Inventor(s): <input type="text" value="i"/> Smith</p> <p>European Classification (ECLA): <input type="text" value="i"/> F03G7/10</p> <p>International Patent Classification (IPC): <input type="text" value="i"/> H03M1/12</p> <p style="text-align: right;"><input type="button" value="Clear"/> <input type="button" value="Search"/></p>
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公開日  
20090101:20101122  
ではエラーとなって検索出来なかったのに、  
20090215:20110509  
では検索することが出来ました。理由は不明です。システムが未だ不安定なようです。

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## I . Espacenet Advanced search (8)

SmartSearch

Quick search

Advanced search

Number search

Classification search

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Quick help

→ Can I subscribe to an RSS feed of the result list?

→ What does RSS reader do with the result list?

→ Can I export the result list?

→ What happens if I click on "Download covers"?

→ Why is the number of results sometimes approximate?

→ Why is the list limited to 500 results?

→ Why could it be that a certain patent document is not displayed in the results list?

→ Can I sort the result list?

→ Why do I sometimes get results having a title which is not in English?

→ What happens if I click on the star icon?

→ What is an XP document?

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Related links

### Result list

Select all    Compact   [Export \(CSV|XLS\)](#)   [Download covers \(0\)](#)   [Print](#)

4 results found in the Worldwide database for: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract AND 20090215:20110509 as the publication date

Sort by:  Sort order:

公開日20090215:20110509の検索結果です。4件がヒットしました。特定の公開日から期間限定で調査できると、定期的に新しい特許のみを検索する際に、前の検索日から検索すれば良いので便利です。

1. Treatment of Cancer Using HSV Mutant

★ Inventor: MACLEAN ALASDAIR RODERICK [GB]   Applicant: CRUSADE LAB LTD, WISTAR INST [US]   BROWN SUSANNE MOIRA [GB] (+2)

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2. Bi-target treatment for bladder cancer by non-fusion Adeno-associated virus carrier of tumstatin Tumstatin and suicide gene HSV-TK

★ Inventor: RUIFA HAN   Applicant: RUIFA HAN, YU LEI (+1)   EC:   IPC: A61K35/76, A61K48/00, A61P35/00   Publication info: CN101810865 (A), 2010-08-25   Priority date: 2009-09-27

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3. Synthetic Herpes Simplex Viruses Type 1 for Treatment of Cancers

★ Inventor: KOUSOULAS KONSTANTIN G [US]   Applicant:   EC: A61K35/76, C07K14/035 (+1)   IPC: A61K35/76, A61P35/00, C12N15/63 (+1)   Publication info: US2010297085 (A1), 2010-11-25   Priority date: 2007-05-09

---

4. Use of Mutant Herpes Simplex Virus-2 for Cancer Therapy

★ Inventor: ZHANG XIAOLIJU [US]   Applicant: BAYLOR COLLEGE MEDICINE   EC: A61K35/76   IPC: C12N15/63   Publication info: US2009215147 (A1), 2009-09-27   Priority date: 2008-09-27

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## I . Espacenet Advanced search (9)

Search

Result list

My patents list (0)

Query history

Settings

Help

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SmartSearch

Quick search

Advanced search

Number search

Classification search

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Quick help

→ How many terms can I enter per field?

→ Can I search with a combination of words?

→ Can I use truncation or wildcards?

→ How do I enter publication, application, priority and NPL reference numbers?

→ What is the difference between the IPC and the ECLA?

→ What are the valid date formats?

→ What are the admissible entries for a date range search?

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Related links

### Advanced search

DatabaseをEPに変えると、検索対象は欧州特許ですが、Full textでのキーワード検索が可能です。

**1. Database**

Select the database in which you wish to search:

EP - complete collection including full text of European published applications

**2. Search terms**

Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title:  e.g. motor

Keyword(s) in title or abstract:  e.g. hair

Keyword(s) in full text:  e.g. hair

("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

Publication number:  e.g. EP1883031

Application number:  e.g. EP20070010825

Priority number:  e.g. DE20021036409

Publication date:  e.g. 20070919

Applicant(s):  e.g. IBM

Inventor(s):  e.g. Siemens

International Patent Classification (IPC):  e.g. H02M7/537 H03K17/687

[Clear](#) [Search](#)

同じキーワードで検索。  
("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

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# I. Espacenet Advanced search (10)

2670件ヒットしましたが、500件までしか結果は表示されませんので、期間を数回に分割して、複数回の検索を行う必要があります。但し、明細書の全文検索ですから、1つでもキーワードがあれば、ヒットするため、Title, Abstract, Claimsでの検索に比べて、ノイズが極めて多いことは覚悟しなければなりません。

Approximately 2,670 results found in the EP database for: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the full text. Only the first 500 results are displayed.

Results are sorted by date of upload in database

1. Cationic lipid compositions targeting angiogenic endothelial cells
<p>★ <b>Inventor:</b> BALUK PETER [US] MCDONALD DONALD M [US] (+2)</p> <p><b>Applicant:</b> UNIV CALIFORNIA [US]</p> <p><b>EC:</b> A61K31/7088 A61K45/06 A61K47/48 (+13)</p> <p><b>IPC:</b> EP1767192 (A2) 2007-03-28 EP1767192 (A3) 2011-05-04</p> <p><b>Publication info:</b></p> <p><b>Priority date:</b> 1997-03-12</p>
2. Uses of antibodies to aminophospholipids for cancer treatment
<p>★ <b>Inventor:</b> RAN SOPHIA [US] THORPE PHILIP E [US]</p> <p><b>Applicant:</b> UNIV TEXAS [US]</p> <p><b>EC:</b> A01K67/027 A61K39/395 A61K45/00 (+9)</p> <p><b>IPC:</b> EP2311490 (A2) 2011-04-20 EP2311490 (A3) 2011-05-04</p> <p><b>Publication info:</b></p> <p><b>Priority date:</b> 1998-07-13</p>
3. Use of antibody to M-CSF
<p>★ <b>Inventor:</b> KAVANAUGH WILLIAM MICHAEL [US]</p> <p><b>Applicant:</b> NOVARTIS AG [CH] XOMA TECHNOLOGY LTD [US]</p> <p><b>EC:</b> A61K39/395 A61P19/008 C07K16/24</p> <p><b>IPC:</b> EP2277916 (A2) 2011-01-26 EP2277916 (A3)</p> <p><b>Publication info:</b></p> <p><b>Priority date:</b> 2005-07-28</p>

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# I. Espacenet Advanced search (11)

DatabaseはEPのままで、Title or Abstractに同じキーワードを入れて検索してみます。

**Advanced search**

1. Database  
Select the database in which you wish to search: **i**  
[EP - complete collection including full text of European published applications]

2. Search terms  
Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title: **i** e.g. motor

Keyword(s) in title or abstract: **i** e.g. hair  
( "herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

Keyword(s) in full text: **i** e.g. hair

Publication number: **i** e.g. EP1883031

Application number: **i** e.g. EP20070010825

Priority number: **i** e.g. DE20021036409

Publication date: **i** e.g. 20070919

Applicant(s): **i** e.g. IBM

Inventor(s): **i** e.g. Siemens

International Patent Classification (IPC): **i** e.g. H02M7/537 H03K17/687

Clear Search

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## I. Espacenet Advanced search (12)

12件がヒットしました。本来の好ましい検索は、Claims, Title, or Abstractでの検索ですが、EPOでは出来ません。WIPOでの検索では、Claims, Title, or Abstractでの検索が可能ですので、WIPOでの検索の併用をお勧めします。

**Result list**

12 results found in the EP database for: ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the title or abstract

Sort by: Upload date Sort order: Descending

1. Composition and method for treating cancer using herpes virus
<p>★ <b>Inventor:</b> NISHIYAMA YUKIHIRO [JP]</p> <p>★ <b>Applicant:</b> M S SCIENCE CORP [JP] NISHIYAMA YUKIHIRO [JP]</p> <p>★ <b>EC:</b> A61K31/337 A61K31/4375 A61K31/522 (+25)</p> <p>★ <b>IPC:</b> EP2213300 (A1) 2010-08-04</p> <p>★ <b>Publication info:</b> EP2213300 (A1) 2010-08-04</p> <p>★ <b>Priority date:</b> 2001-09-28</p>
2. MUTANT HERPES SIMPLEX VIRUS AND USE THEREOF IN THE TREATMENT OF SQUAMOUS CELL CANCER
<p>★ <b>Inventor:</b> BROWN SUSANNE MOIRA [GB] DUNN PAUL [GB] (+2)</p> <p>★ <b>Applicant:</b> CRUSADE LAB LTD [GB] SLOAN KETTERING INST CANCER [US]</p> <p>★ <b>EC:</b> A61K35/76 A61K48/00 C07K14/82 (+9)</p> <p>★ <b>IPC:</b> EP1694852 (A2) 2006-08-30</p> <p>★ <b>Publication info:</b> EP1694852 (A2) 2006-08-30</p> <p>★ <b>Priority date:</b> 2004-02-03</p>
3. Treatment of non-neuronal cancer using HSV mutant
<p>★ <b>Inventor:</b> ALBELDA STEVEN [US] BROWN MOIRA SUSANNE [GB] (+4)</p> <p>★ <b>Applicant:</b> UNIV GLASGOW [GB] WISTAR INST [US]</p> <p>★ <b>EC:</b> A61K35/76 A61K35/66 (IPC1-7);A61K35/76</p> <p>★ <b>IPC:</b> EP1314430 (A1) 2003-05-28</p> <p>★ <b>Publication info:</b> EP1314430 (A1) 2003-05-28</p> <p>★ <b>Priority date:</b> 1996-11-09</p>
4. TREATMENT OF NON-NEURONAL CANCER USING HSV MUTANT
<p>★ <b>Inventor:</b> ALBELDA STEVEN [US] BROWN SUSANNE [GB] (+4)</p> <p>★ <b>Applicant:</b> MEDICAL RES COUNCIL [GB] UNIV GLASGOW [GB] (+1)</p> <p>★ <b>EC:</b> A61K35/76 A61K35/66</p> <p>★ <b>IPC:</b> EP0895476 (A1) 1999-02-10</p> <p>★ <b>Publication info:</b> EP0895476 (A1) 1999-02-10</p> <p>★ <b>Priority date:</b> 1996-11-09</p>

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## I. Espacenet Advanced search (13)

DatabaseをWIPOに変えると、検索対象はPCT出願だけですが、Full textでのキーワード検索が可能です。

**Advanced search**

1. Database  
Select the database in which you wish to search: **i**  
[WIPO - espacenet - complete collection including full text of PCT published applications]

2. Search terms  
Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title: **i** mouse and trap

Keyword(s) in title or abstract: **i** hair

Keyword(s) in full text: **i** ("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

Publication number: **i** WOYYnnnnn, WOYYnnnnnn, WOYYYnnnnnn

Application number: **i** WO2007US14402

Priority number: **i** US20060423974

Publication date: **i** yyyyymmdd

Applicant(s): **i** novo

Inventor(s): **i** Smith

International Patent Classification (IPC): **i** H03K17/687

Clear Search

同じキーワードで検索。  
("herpes simplex" or HSV) and (gene or recombin\* or mutant or mutat\*) and (nervous or cancer)

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## I. Espacenet Advanced search (14)

17336件ヒットしましたが、500件までしか結果は表示されませんので、期間を数回に分割して、複数回の検索を行う必要があります。

Search → Results page 1

Result list

Approximately 17,336 results found in the EPO database for: ("Herpes simplex" or HSV) and Gene or recombin\* or mutant or mutat\*) and (nervous or cancer) in the full text  
Only the first 500 results are displayed.

Results are sorted by date of upload in database

1. GENETICALLY MODIFIED RAT MODELS FOR PHARMACOKINETICS

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
CRAWFORD JOHN STUART [US] OSTERTAG ERIC [US]	CRAWFORD JOHN STUART [US] OSTERTAG ERIC [US] (+1)	G01N33/68		WO2011014721 (A2) 2011-02-03 WO2011014721 (A3) 2011-04-28	2009-07-30

2. GALLIUM FORMULATION FOR THE TREATMENT AND PREVENTION OF INFECTIOUS DISEASES

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
LECHUGA-BALLESTEROS DAVID [US] MARTIN RUSSELL [US] (+5)	ARIDIS PHARMACEUTICALS [US] LECHUGA-BALLESTEROS DAVID [US] (+6)	A61K31/28		WO2011005354 (A2) 2011-01-13 WO2011005354 (A3) 2011-04-28	2009-05-04

3. MATERIALS AND METHODS FOR TREATING AND PREVENTING VIRAL INFECTIONS

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
AHMED CHULBUL IQBAL M [US] JOHNSON HOWARD M [US]	AHMED CHULBUL IQBAL M [US] JOHNSON HOWARD M [US] (+1)	A61K38/10 A61P31/12 A61P31/16 (+1)		WO2010151495 (A2) 2010-12-29 WO2010151495 (A3) 2011-04-28	2009-06-26

4. METHODS FOR MAKING CONTROLLED DELIVERY DEVICES HAVING ZERO ORDER KINETICS

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
BOWMAN PHILLIP [US] HO PAUL S [US] (+4)	BOWMAN PHILLIP [US] HO PAUL S [US] (+5)	A61F2/88 A61L27/14 A61M31/00 (+1)		WO2011008897 (A2) 2011-01-20 WO2011008897 (A3) 2011-04-28	2009-07-14

5. LOW DOSE COLONY STIMULATING FACTORS TO TREAT AMYLOIDOSIS

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## I. Espacenet IPC検索 (1)

### 【US6, 248, 320の例】

US6, 248, 320の例では、米国特許庁は下記の4つのIPCを付与しています。これらはIPC第7版のIPC分類です。

A01N63/00; C12N15/00; C12N7/00; C12N7/04

EPOでは、同じ内容の特許に下記の多数のIPCを付与しており、

A61K35/30; A61K35/34; A61K48/00; A61P25/00; A61P25/16;  
A61P35/00; C07K14/035; C12N1/21; C12N15/00; C12N15/869;  
C12N7/04; C12R1/01; A61K35/30; A61K35/34; A61K48/00;  
A61P25/00; A61P35/00; C07K14/005; C12N1/21; C12N15/00;  
C12N15/869; C12N7/04; (IPC1-7): A01N63/00; C12N15/00;  
C12N7/00; C12N7/04

更に、下記のECLAコードを付与しています。

C07K14/035, C12N15/869H, C12N7/04

これらのコードの意味を確認して、検索コードを選定します。

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## I . Espacenet IPC検索 (2) IPCの選定法

- WIPO (World Intellectual Property Organization) の  
“Browse and Search the Current IPC or Earlier Versions”  
<http://www.wipo.int/ipcpub/#refresh=page>  
を開き、Versionを指定して、IPCを入力して、IPCの意味を確認します。
- IPCは日本特許庁のIPDLの「パテントマップガイド」(PMGS)でも調べられます。
- 最初は関連特許に付されたIPCを参考にして検索することをお勧めします。

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## I . Espacenet IPC検索 (3) WIPOのIPC表

The screenshot shows the WIPO IPC classification table. The table lists sections A through H with their corresponding descriptions. Annotations in yellow boxes provide instructions:

- A yellow box at the top right contains the URL: <http://www.wipo.int/ipcpub/#refresh=page>.
- A yellow box on the right side contains the text: "世界的に用いられている特許分類はIPCですが、EPOは独自のECLAの使用を推奨しており、IPCリストを直接リンクしていないので、上記のWIPOの“Browse and Search the Current IPC or Earlier Versions”か、日本特許庁のIPDLの「パテントマップガイド」(PMGS)を開いて、IPCを確認して下さい。"
- A yellow box at the bottom right contains the text: "この場合はIPC第7版を選定します。"
- A yellow box at the bottom center contains the text: "米国特許に付与されていたA01N63/00を入力し、“Go to”をクリック。検索結果は下の方に表示されるので、下にスクロールして確認して下さい。"

The table content is as follows:

Scheme	RCL	Catchwords
A		SECTION A — HUMAN NECESSITIES
B		SECTION B — PERFORMING OPERATIONS
C		SECTION C — CHEMISTRY; METALLURGY
D		SECTION D — TEXTILES; PAPER
E		SECTION E — FIXED CONSTRUCTIONS
F		SECTION F — MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
G		SECTION G — PHYSICS
H		SECTION H — ELECTRICITY

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## I . Espacenet IPC検索 (4) WIPOのIPC表

このIPC bridge マークをクリックすると、対応する欧州特許庁のECLAコード、日本特許庁の patents マップガイダンスが閲覧できます。

A01N63/00の意味が表示されます。

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## I . Espacenet IPC検索 (5) IPC Bridge

ECLAを選択すると、欧州特許庁の対応するECLAコードが表示されます。

Japaneseを選択すれば、日本特許庁のIPC第8版が開き、日本語でIPCの確認が可能です。

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## I . Espacenet IPC検索 (6)

[メニュー](#) [ヘルプ](#) [先頭画面](#) [戻る](#) [進む](#) [前メイングループ](#) [次メイングループ](#) [メイングループ選択](#)

**\*\* IPC(第8版)(一覧表示) \*\***
A01N63/00の意味が日本語で表示されます。米国特許庁では付与されたA01N63/00はUS6,248,320の内容にあまりふさわしくないようです。

2011.05.08の時点で有効なIPCを表示します。

この画面は、メイングループA01N63/00内の「IPC」を全て表示しています。(CC:コノコダンス)

・表示種別を変更する場合は表示種別を選択後、表示種別をクリックしてください。表示種別の違いはヘルプを参照して下さい

表示種別  一覧表示  タブ表示  同階層表示

- [63/00](#) (2006.01) 殺生物剤、有害生物忌避剤または誘引剤、または植物生長調節剤であって、微生物、ビールス、かびまたは動物、例、線虫、を含むもの、あるいは微生物、ビールス、かびまたは動物によって生産された、またはそれらから採取された物質、例、酵素または発酵生産物(構造決定化合物を含むもの27/00~59/00) [3] [CC](#)
- [63/02](#) (2006.01) 微生物または動物により生産され、またはそれらから採取された物質 [3] [CC](#)
- [63/04](#) (2006.01) かび;かびによって生産され、またはかびから採取された物質 [3] [CC](#)

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## I . Espacenet IPC検索 (7)

WORLD INTELLECTUAL PROPERTY ORGANIZATION

IPC Home Page - Help

Version: Version 7

Current symbol: C12N 7/00

Language: English

View mode: full

Search: Terms, Cross-references, Fuzzy (TACSY)

Assistance: Text categorization (IPCCAT)

Scheme	RCL	Catchwords
C12N 7/00		Viruses, e.g. bacteriophages; Compositions thereof; Preparation or purification thereof (medical preparations containing viruses A61K 35/76; preparing medicinal viral antigen or antibody compositions, e.g. virus vaccines, A61K 39/00) [3]
C12N 7/01		Viruses, e.g. bacteriophages, modified by introduction of foreign genetic material (vectors C12N 15/00) [5]
C12N 7/02		Recovery or purification [3]
C12N 7/04		Inactivation or attenuation; Producing viral sub-units [3]
C12N 7/06		by chemical treatment [3]
C12N 7/08		by serial passage of virus [3]
C12N 9/00		e.g. ligases (6); Proenzymes; Compositions thereof (preparations containing enzymes for cleaning medicinal preparations containing enzymes or proenzymes A61K 38/43; enzyme containing detergents A61K 47/00); Processes for preparing, activating, inhibiting, separating, or purifying enzymes (A61K 47/00) [3]
C12N 9/02		Oxidoreductases (1.), e.g. luciferase [3]
C12N 9/04		acting on CHOH groups as donors, e.g. glucose oxidase, [3]
C12N 9/06		acting on nitrogen containing compounds as donors (1.4, [3]
C12N 9/08		acting on hydrogen peroxide as acceptor (1.11) [3]
C12N 9/10		Transferases (2.) (ribonucleases C12N 9/22) [3]
C12N 9/12		transferring phosphorus containing groups, e.g. kinases [3]
C12N 9/14		Hydrolases (3.) [3]
C12N 9/16		acting on ester bonds (3.1) [3]
C12N 9/18		Carboxylic ester hydrolases [3]

IPCの意味を確認。  
**C12N 7/00: ウイルス、**  
**C12N 7/04: Inactivation or attenuation; Producing viral sub-units**  
 同様に、その他のIPCの意味も確認し、検索式作成の参考にします。  
**C12N 15/00: Mutation or genetic engineering**  
**C07K14/035: Herpes simplex virus I or II**  
**C12N15/869: Herpesviral vectors**

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# I. Espacenet Advanced Search (15)

**1. Database**  
 Select the database in which you wish to search: **i**  
 Worldwide - full collection of published patent applications from 80+ countries

**2. Search terms**  
 Enter keywords in English - ctrl-enter expands the field you are in

Keyword(s) in title: **i** plastic and bicycle

Keyword(s) in title or abstract: **i** hair  
 ("herpes simplex" or HSV)

Publication number: **i** WO2008014520

Application number: **i** DE19971031696

Priority number: **i** WO1995US15925

Publication date: **i** 2010:2011

Applicant(s): **i** Institut Pasteur

Inventor(s): **i** Smith


European Classification (ECLA): F03G7/10

International Patent Classification (IPC): **i** H03M1/12  
 (C12N7/04 or C12N15/00)

Clear Search

検索語; ("herpes simplex" or HSV)、公開日期間; 2010:2011、IPC; (C12N7/04 or C12N15/00)で検索します。IPCはスペースを詰めて検索します。

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1. Compositions and Methods Using Herpes Simplex Virus

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ HE BIN [US] VERPOOTEN DUSTIN [US] (+1)			A61K39/245 A61P31/22 A61P37/04 (+2)	US2011052630 (A1) 2011-03-03	2009-07-15

2. MEGANUCLEASE VARIANTS CLEAVING THE GENOME OF A PATHOGENIC NON-INTEGRATING VIRUS AND USES THEREOF

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ CHOULIKA ANDRE [FR] CEDRONE FREDERIC [FR] (+1)	CELLECTIS [FR] CHOULIKA ANDRE [FR] (+2)	C12N9/22	C12N9/22	WO2010136981 (A2) 2010-12-02 WO2010136981 (A3) 2010-04-28	2009-05-26

3. Treatment of Cancer Using HSV Mutant

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ MACLEAN ALASDAIR RODERICK [GB] BROWN SUSANNE MOIRA [GB] (+2)	CRUSADE LAB LTD [GB] WISTAR INST [US]	A61K35/76 C12N7/00	A61K35/76 A61P35/00 A61P35/04 (+5)	US2010172872 (A1) 2010-07-08	1994-07-29

4. VIRAL ANTIGEN

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
★ WETTENDORFF MARTINE ANNE CECILE	GLAXOSMITHKLINE BIOLOG SA	A61K39/12 A61K39/295 (+2)	A61K39/00 A61K39/118 A61K39/12 (+10)	JP2010090158 (A) 2010-04-22	2002-03-18

6件がヒットしました。



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FIXED CONSTRUCTIONS  E

MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING ENGINES OR PUMPS  F

PHYSICS  G

ELECTRICITY  H

GENERAL TAGGING OF NEW TECHNOLOGICAL DEVELOPMENTS; GENERAL TAGGING OF CROSS-OVER TECHNOLOGIES  Y

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- 2007年4月時点で、IPC第8版は、70 000グループを収録していたが、ECLAは132 200グループを収録していました。

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CHEMISTRY; METALLURGY C

TEXTILES; PAPER D

FIXED CONSTRUCTIONS E

MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING ENGINES OR PUMPS F

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Index A B C D E F G H Y

- Medicinal preparations containing organic active ingredients A61K31
- Peptides having more than 20 amino acids; Gastrins; Somatostatins; Melanotropins; Derivatives thereof C07K14
- Mutation or genetic engineering; DNA or RNA concerning genetic engineering, vectors, e.g. plasmids, or their isolation, preparation or purification; Use of hosts therefor (mutants or geni... C12N15
- Medicinal preparations containing antigens or antibodies (materials for immunoassay G01N33/53)[C9805] A61K39
- Viruses; Bacteriophages; Compositions thereof; Preparation or purification thereof (preparing medicinal viral antigen or antibody composition, e.g. virus vaccines, ... C12N7
- Medicinal preparations containing material or reaction products thereof with undetermined constitution A61K35
- Medicinal preparations characterised by special physical form (nuclear magnetic resonance contrast preparations or magnetic resonance imaging contrast preparataions ... A61K9
- Medicinal preparations containing active ingredients not provided for in groups A61K31/00 to ... A61K45
- Immunoglobulins [IGs], e.g. monoclonal or polyclonal antibodies [N: (antibodies with enzymatic activity, e.g. abzymes C12N9/00B)] [C0207] C07K16
- Medicinal preparations containing peptides (peptides containing beta-lactam rings A61K31/00; cyclic dipeptides not having in their mole... A61K38

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CHEMISTRY; METALLURGY

BIOCHEMISTRY; BEER; SPIRITS; WINE; VINEGAR; MICROBIOLOGY; ENZYMOLOGY; MUTATION OR GENETIC ENGINEERING  C12

MICRO-ORGANISMS OR ENZYMES; COMPOSITIONS THEREOF (biocides, pest repellants or attractants, or plant growth regulators, containing micro-organisms, viruses, microbial fungi, enzymes, fermentates or substances produced by or extracted from micro-organisms or animal material A01N63/00 ; food compositions A21, A23; medicinal preparations A61K; chemical aspects of, or use of materials for, bandages, dressings, absorbent pads or surgical articles A61L; fertilisers C05); PROPAGATING, PRESERVING OR MAINTAINING MICRO-ORGANISMS (preservation of living parts of humans or animals A01N1/02); MUTATION OR GENETIC ENGINEERING; CULTURE MEDIA (micro-biological testing media C12Q)  C12N

Mutation or genetic engineering; DNA or RNA concerning genetic engineering, vectors, e.g. plasmids, or their isolation, preparation or purification; Use of hosts therefor (mutants or genetically engineered micro-organisms, per se C12N1/00 , C12N5/00 , C12N7/00 ; new plants per se A01H; plant reproduction by tissue culture techniques A01H4/00 ; new animals per se A01K67/00 ; use of medicinal preparations containing genetic material which is inserted into cells of the living body to treat genetic diseases, gene therapy A61K48/00)  C12N15

- Preparation of mutants without inserting foreign genetic material therein; Screening processes therefor  C12N15/01
- Preparation of hybrid cells by fusion of two or more cells, e.g. protoplast fusion [N: (monoclonal antibodies C07K16/00 ; apparatus for cell fusion C12M)] [C0207]  C12N15/02
- Bacteria  C12N15/03
- Fungi  C12N15/04
- Recombinant DNA-technology  C12N15/09
- Processes for the isolation, preparation or purification of DNA or RNA (chemical C07H21/00 ; preparation of non-structural polynucleotides from micro-organisms [C0703]  C12N15/10
  - [N: Extracting or separating nucleic acids from biological samples, e.g. pure separation or isolation methods; Conditions, buffers or apparatuses therefor] [N9706]  C12N15/10A
  - [N: by means of a solid support carrier, e.g. particles, polymers] [N9910]  C12N15/10A2
  - [N: by chromatography, e.g. electrophoresis, ion-exchange, reverse phase] [N9910]  C12N15/10A2B
  - [N: by using magnetic beads] [N9910]  C12N15/10A2D
  - [N: by filtration, e.g. using filters, frits, membranes] [N9910]  C12N15/10A3
  - [N: Mutagenizing nucleic acids] [N9706]  C12N15/10B
  - [N: In vivo mutagenesis using high mutation rate "mutator" host strains by inserting genetic material, e.g. encoding an error prone polymerase, disrupting a gene for mismatch repair] [N0608]  C12N15/10B1
  - [N: by DNA shuffling, e.g. RSR, STEP, RPR] [N0110]  C12N15/10B2
  - [N: mutagenesis by gene assembly, e.g. assembly by oligonucleotide extension PCR] [N1006]  C12N15/10B4

**C12N15 の更に細分化したコードを見ることが出来ます。必要に応じて、下位のコードを用います。**

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- Medicinal preparations containing organic active ingredients  A61K31
- Peptides having more than 20 amino acids; Gastrins; Somatostatins; Melanotropins; Derivatives thereof  C07K14
- Mutation or genetic engineering; DNA or RNA concerning genetic engineering, vectors, e.g. plasmids, or their isolation, preparation or purification; Use of hosts therefor (mutants or genetically engineered micro-organisms, per se C12N1/00 , C12N5/00 , C12N7/00 ; new plants per se A01H; plant reproduction by tissue culture techniques A01H4/00 ; new animals per se A01K67/00 ; use of medicinal preparations containing genetic material which is inserted into cells of the living body to treat genetic diseases, gene therapy A61K48/00)  C12N15
- Medicinal preparations containing antigens or antibodies (materials for immunoassay A61K33/53) [C9805]  A61K39
- Viruses; Bacteriophages; Compositions thereof; Preparation or purification thereof (preparing medicinal viral antigen or antibody composition, e.g. virus vaccines, ...)  C12N7
- Medicinal preparations containing material or reaction products thereof with undetermined constitution  A61K35
- Medicinal preparations characterised by special physical form (nuclear magnetic resonance contrast preparations or magnetic resonance imaging contrast preparations ...)  A61K9
- Medicinal preparations containing active ingredients not provided for in groups A61K31/00 to ...  A61K45
- Immunoglobulins [IGs], e.g. monoclonal or polyclonal antibodies [N: (antibodies with enzymatic activity, e.g. abzymes C12N9/00B)] [C0207]  C07K16
- Medicinal preparations containing peptides (peptides containing beta-lactam rings A61K31/00 ; cyclic dipeptides not having in their mole...  A61K38

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[346] [347] [348] [349] [350] [351] [352] [353] [354] [355] [356] [357] [358] [359] [360] [361] [362] [363] [364] [365] [366] [367] [368] [369] [370] [371] [372] [373] [374] [375] [376] [377] [378] [379] [380] [381] [382] [383] [384] [385] [386] [387] [388] [389] [390] [391] [392] [393] [394] [395] [396] [397] [398] [399] [400] [401] [402] [403] [404] [405] [406] [407] [408] [409] [410] [411] [412] [413] [414] [415] [416] [417] [418] [419] [420] [421] [422] [423] [424] [425] [426] [427] [428] [429] [430] [431] [432] [433] [434] [435] [436] [437] [438] [439] [440] [441] [442] [443] [444] [445] [446] [447] [448] [449] [450] [451] [452] [453] [454] [455] [456] [457] [458] [459] [460] [461] [462] [463] [464] [465] [466] [467] [468] [469] [470] [471] [472] [473] [474] [475] [476] [477] [478] [479] [480] [481] [482] [483] [484] [485] [486] [487] [488] [489] [490] [491] [492] [493] [494] [495] [496] [497] [498] [499] [500] [501] [502] [503] [504] [505] [506] [507] [508] [509] [510] [511] 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## II . European Patent Register About this file (3)

<b>International search report:</b>	<b>Date:</b>	05.02.1998	
	<b>Authority:</b>	EP	
<b>Classification</b>	<b>International :</b>	C12N15/86, C12N7/04, C12N7/01, C07K14/035	[1999/23]
<b>Designated contracting states</b>		AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE	[1999/23]
<b>Title</b>	<b>German :</b>	HSV STAMM MIT MANGEL FÜR FUNKTIONELLE ICP27 UND ICP34.5 GENEN	[1999/23]
	<b>English :</b>	HSV STRAIN LACKING FUNCTIONAL ICP27 AND ICP34.5 GENES	[1999/23]
	<b>French :</b>	SOUCHES DU VIRUS DE L'HERPES SIMPLEX EXEMPTES DES GENES FONCTIONNELS ICP27 ET ICP34.5	[1999/23]
<b>Entry into regional phase</b>	23.02.1999	National basic fee paid	EPOの審査状況も示されます。
	23.02.1999	Designation fee(s) paid	
	23.02.1999	Examination fee paid	
<b>Examination procedure</b>	16.02.1998	Request for preliminary examination filed International Preliminary Examining Authority: EP	
	23.02.1999	Examination requested	
	23.02.1999	Amendment by applicant (claims and/or description)	
	20.09.2001	Request for accelerated examination filed	
	29.10.2001	Decision about request for accelerated examination - accepted: Yes	
	29.10.2001	Despatch of a communication from the examining division (Time limit: M04)	
	15.02.2002	Reply to a communication from the examining division	
	03.02.2003	Communication of intention to grant the patent	
	28.07.2003	Fee for grant paid	

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## II . European Patent Register About this file (4)

<b>Opposition(s)</b>	09.07.2004	No opposition filed within time limit [2004/40]	
<b>Fees paid</b>	<b>Renewal fee</b>		
	13.07.1999	Renewal fee patent year 03	年金支払いと年金不払いでの失効が示されています。
	12.07.2000	Renewal fee patent year 04	
	12.07.2001	Renewal fee patent year 05	
	24.07.2002	Renewal fee patent year 06	
	14.07.2003	Renewal fee patent year 07	
<b>Lapse</b>	AT	08.10.2003	
	FI	08.10.2003	
	IT	08.10.2003	
	NL	08.10.2003	
	DK	08.01.2004	
	GR	08.01.2004	
	SE	08.01.2004	
	ES	19.01.2004	
	PT	08.03.2004	
		[2008/08]	
<b>Documents cited:</b>	<b>Search</b>	[ ] See references of WO 9804726A1	
	<b>International search</b>	[Y] ▶ EP0453242	
		[Y] ▶ WO9204050	

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## II. European Patent Register Legal status (1)

EP0920523		Legal status: EP0920523																																					
<ul style="list-style-type: none"> <li>About this file</li> <li><b>Legal status</b></li> <li>Event history</li> <li>Citations</li> <li>Patent family</li> <li>All documents</li> </ul>	<ul style="list-style-type: none"> <li>Quick help</li> <li>→ What happens if I click on the "XML" or "ST36" buttons?</li> <li>→ What does "legal status" mean?</li> <li>→ What does PRS stand for?</li> <li>→ What is meant by "entry into the European phase"?</li> </ul>	Refine search   XML   ST36   Espacenet   Report error	<b>Designated contracting states</b> <table border="1"> <tr><td>AT</td><td>Lapse : 08.10.2003</td></tr> <tr><td>BE</td><td></td></tr> <tr><td>CH</td><td></td></tr> <tr><td>DE</td><td></td></tr> <tr><td>DK</td><td>Lapse : 08.01.2004</td></tr> <tr><td>ES</td><td>Lapse : 19.01.2004</td></tr> <tr><td>FI</td><td>Lapse : 08.10.2003</td></tr> <tr><td>FR</td><td></td></tr> <tr><td>GB</td><td></td></tr> <tr><td>GR</td><td>Lapse : 08.01.2004</td></tr> <tr><td>IE</td><td></td></tr> <tr><td>IT</td><td>Lapse : 08.10.2003</td></tr> <tr><td>LI</td><td></td></tr> <tr><td>LU</td><td></td></tr> <tr><td>MC</td><td></td></tr> <tr><td>NL</td><td>Lapse : 08.10.2003</td></tr> <tr><td>PT</td><td>Lapse : 08.03.2004</td></tr> <tr><td>SE</td><td>Lapse : 08.01.2004</td></tr> </table>	AT	Lapse : 08.10.2003	BE		CH		DE		DK	Lapse : 08.01.2004	ES	Lapse : 19.01.2004	FI	Lapse : 08.10.2003	FR		GB		GR	Lapse : 08.01.2004	IE		IT	Lapse : 08.10.2003	LI		LU		MC		NL	Lapse : 08.10.2003	PT	Lapse : 08.03.2004	SE	Lapse : 08.01.2004
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NL	Lapse : 08.10.2003																																						
PT	Lapse : 08.03.2004																																						
SE	Lapse : 08.01.2004																																						
			<b>Examination procedure</b> 28.07.2003   Fee for printing paid <b>Entry into regional phase</b> 23.02.1999   National basic fee paid 23.02.1999   Designation fee(s) paid																																				

“Legal status”では、欧州特許の法的状況が表示されます。

Lapseとは、年金不払いによる失効を意味します。

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## II. European Patent Register Legal status (2)

<b>Fees paid</b>	<b>Renewal fee</b>		
	13.07.1999	Renewal fee patent year 03	
	12.07.2000	Renewal fee patent year 04	
	12.07.2001	Renewal fee patent year 05	
	24.07.2002	Renewal fee patent year 06	
	14.07.2003	Renewal fee patent year 07	
<b>European patent granted</b>	08.10.2003		
<b>Opposition procedure</b>	09.07.2004	No opposition filed within time limit	published on 29.09.2004
<b>INPADOC data</b>	The EPO does not accept any responsibility for the accuracy of legal status data relating to the post-grant phase, including but not limited to the specific purposes, nor can it guarantee that such data are up to date. For authoritative information, please refer to the relevant national patent.		
	PRS date :	09.06.1999	
	PRS description :	DESIGNATED CONTRACTING STATES:	
	Kind Code of Ref Document:	A1	
	Designated State(s):	AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC	
	PRS date :	09.06.1999	
	PRS description :	REQUEST FOR EXAMINATION FILED	
	Effective DATE:	19990223	
	PRS date :	17.11.1999	
	PRS description :	TRANSFER OF RIGHTS OF AN EP APPLICATION	
	Owner Name:	UNIVERSITY COLLEGE, LONDON	
	PRS date :	17.11.1999	

欧州特許出願の年金支払い状況です。

下段にINPADOCのデータが表示されています。INPADOCのPRS記号 (Patent Register Service code) は、多くはその意味が併記されていますが、意味が分からない場合は、“Raw data resources (INPADOC)”の中の “Classification of recently used PRS codes”  
<http://www.epo.org/patents/patent-information/raw-data/useful-tables/classification-prs.html> をご参照下さい。

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## II. European Patent Register Event history

Event history: EP0920523	
02.09.1997	PCT data prior to European publication
09.03.1999	PCT data prior to European publication
17.04.1998	PCT data prior to European publication
04.03.1999	PCT data prior to European publication
20.04.1999	PCT data prior to European publication
23.04.1999	Request for examination filed <span style="float: right;">published on 09.06.1999 [1999/23]</span>
23.04.1999	Publication in section I.1 EP Bulletin <span style="float: right;">published on 09.06.1999 [1999/23]</span>
19.05.1999	Amendment by applicant
22.07.1999	Renewal fee
01.10.1999	Change - representative <span style="float: right;">published on 17.11.1999 [1999/48]</span>
01.10.1999	Change - applicant <span style="float: right;">published on 17.11.1999 [1999/48]</span>
21.07.2000	Renewal fee
20.07.2001	Renewal fee
25.09.2001	Request for accelerated examination
24.10.2001	Request for accelerated examination
24.10.2001	Examination report or reply
19.02.2002	Examination report or reply
07.08.2002	Renewal fee
24.01.2003	Communication of intention to grant a patent
24.07.2003	New entry: Renewal fee paid

Event historyでは、EPOでの経過情報が時系列的に表示されます。

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## II. European Patent Register Citations

Citations: EP0920523	
Cited in	Search
Type :	
Publication information :	[ ] See references of WO 9804726A1
Cited in	International search
Type :	Patent literature
Publication No. :	EP0453242
Type :	Patent literature
Publication No. :	WO9204050
Type :	Patent literature
Publication No. :	WO9804395
Type :	Non-patent literature
Publication information :	[Y] CHOU J ET AL: "MAPPING OF HERPES SIMPLEX VIRUS-1 NEUROVIRULENCE TO Y134.5, A GENE NONESSENTIAL FOR VIRUS REPLICATION AND PATHOGENICITY". SCIENCE, vol. 250, no. 4985, 30 November 1990, pages 1262-1268, XP000255907

"Citation"はEPO審査のサーチレポートの引用文献や出願人の引用文献が表示されます。

本欧州特許はPCT経由でEPOに出願されているので、PCT出願の公開公報WOのサーチレポートで引用された先行技術文献が表示されています。

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## II. European Patent Register Patent family

SmartSearch Quick search Advanced search Help

EP0920523

Patent family: EP0920523

Refine search XML ST36 Espacenet

**“Patent family”は当該発明の他の国への特許(出願)公報が表示されます。**

**EspacenetのINPADOC Patent familyでは10件ですが、ここでは、13件の特許(出願)公報が記載されています。DEのT公報、GB、ILが増えています。**

Type	Publication No.	Date	Type
Patent family member	AT251672I	15.10.2003	T
	Priority number	Date	
	GB9702017	25.07.1997	
	GB9615794	26.07.1996	
Type	Publication No.	Date	Type
Patent family member	AU726645B	16.11.2000	B2
	Priority number	Date	
	GB9702017	25.07.1997	
	GB9615794	26.07.1996	
Type	Publication No.	Date	Type
Patent family member	AU370079I	20.02.1998	A
	Priority number	Date	
	GB9702017	25.07.1997	
	GB9615794	26.07.1996	
Type	Publication No.	Date	Type
Patent family member	CA2262010	31.08.2010	C
	Priority number	Date	
	CA2262010	05.02.1998	A1
	Priority number	Date	
	GB9702017	25.07.1997	

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## II. European Patent Register All documents (1)

EP0920523

All documents: EP0920523

Refine search Selected documents Espacenet

All documents(31)

**“All documents”では欧州特許の審査経過の全書類(包装袋資料)が閲覧・ダウンロード可能です。**

**全資料一括選択のボタンですが、必要な資料だけダウンロードすることをお勧めします。**

**必要な資料にチェックを入れ、Selected documentsをクリックし、PDFでダウンロードできます。**

**但し、電子化前の資料は閲覧不可です。**

Date	Document type	Procedure	Number of pages
<input type="checkbox"/>	11.08.2004 Communication regarding the opposition period	Search / examination	1
<input type="checkbox"/>	28.08.2003 Decision to grant a European patent		4
<input type="checkbox"/>	28.07.2003 Filing of the translations of the claims		2
<input type="checkbox"/>	28.07.2003 Translation of the claims	Search / examination	4
<input type="checkbox"/>	28.07.2003 Translation of the claims	Search / examination	3
<input type="checkbox"/>	23.05.2003 Grant of extension of time limit (grant procedure)	Search / examination	1
<input type="checkbox"/>	09.05.2003 Request for extension of time limit to intention to grant	Search / examination	1
<input type="checkbox"/>	03.02.2003 Bibliographic data of the European patent application	Search / examination	2
<input type="checkbox"/>	03.02.2003 Communication about intention to grant a European patent	Search / examination	4
<input type="checkbox"/>	03.02.2003 Druckexemplar	Search / examination	24
<input type="checkbox"/>	23.01.2003 General enquiry	Search / examination	1
<input type="checkbox"/>	01.07.2002 Claims	Search / examination	2
<input type="checkbox"/>	01.07.2002 Claims	Search / examination	1
<input type="checkbox"/>	01.07.2002 Description	Search / examination	2
<input type="checkbox"/>	01.07.2002 Letter filed before dispatch of the 1st communication from the Examining Division(examination procedure)	Search / examination	2
<input type="checkbox"/>	15.02.2002 Claims	Search / examination	5
<input type="checkbox"/>	15.02.2002 Description	Search / examination	3

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## II . European Patent Register All documents (2)

All documents	Date	Document type	Procedure	Number of pages
<input type="checkbox"/>	11.08.2004	<a href="#">Communication regarding the expiry of opposition period</a>	Search / examination	1
<input type="checkbox"/>	28.08.2003	<a href="#">Decision to grant a European patent</a>	Search / examination	4
<input type="checkbox"/>	28.07.2003	<a href="#">Filing of the translations of the claims</a>	Search / examination	2
<input type="checkbox"/>	28.07.2003	<a href="#">Translation of the claims</a>	Search / examination	4
<input type="checkbox"/>	28.07.2003	<a href="#">Translation of the claims</a>	Search / examination	3
<input type="checkbox"/>	23.05.2003	<a href="#">Grant of extension of time limit (grant procedure)</a>	Search / examination	1
<input type="checkbox"/>	09.05.2003	<a href="#">Request for extension of time limit to intention to grant</a>	Search / examination	1
<input type="checkbox"/>	03.02.2003	<a href="#">Bibliographic data of the European patent application</a>	Search / examination	2
<input type="checkbox"/>	03.02.2003	<a href="#">Communication about intention to grant a European patent</a>	Search / examination	4
<input type="checkbox"/>	03.02.2003	<a href="#">Druckexemplar</a>	Search / examination	24
<input type="checkbox"/>	23.01.2003	<a href="#">General enquiry</a>	Search / examination	1
<input type="checkbox"/>	01.07.2002	<a href="#">Claims</a>	Search / examination	2
<input type="checkbox"/>	01.07.2002	<a href="#">Claims</a>	Search / examination	1
<input type="checkbox"/>	01.07.2002	<a href="#">Description</a>	Search / examination	2
<input type="checkbox"/>	01.07.2002	<a href="#">Letter filed before dispatch of the 1st communication from the Examining Division(examination procedure)</a>	Search / examination	2
<input type="checkbox"/>	15.02.2002	<a href="#">Claims</a>	Search / examination	5
<input type="checkbox"/>	15.02.2002	<a href="#">Description</a>	Search / examination	3
<input checked="" type="checkbox"/>	15.02.2002	<a href="#">Reply to communication from the Examining Division</a>	Search / examination	2
<input type="checkbox"/>	29.10.2001	<a href="#">Annex to the communication</a>	Search / examination	1
<input type="checkbox"/>	29.10.2001	<a href="#">Communication from the Examining Division</a>	Search / examination	1

必要な資料にチェックを入れ、  
Selected documentsをクリックして、PDFでダウンロードします。

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## II . European Patent Register All documents (3)

EUROPEAN PATENT ATTORNEYS · CHARTERED PATENT ATTORNEYS · TRADE MARK ATTORNEYS

**ダウンロードした出願人からEPOへの回答書(意見書、補正書)の例です。**

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LONDON WC1R 5JJ

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**EPO - Munich**  
3  
15. Feb. 2002

The European Patent Office  
Directorate General 2  
Erhardstrasse 27  
80331 Munich  
Germany

13 February 2002

**Application under Accelerated Examination**

Dear Sirs

European Patent Application No. 97933762.3-2118  
UNIVERSITY COLLEGE LONDON ET AL  
Our Ref: N.71845B GCW/PT/mm

**EPOでの審査資料(包装)は、全ての資料をダウンロードすることが出来るので、大変便利です。**

In response to the communication dated 29 October 2001, please replace pages 4, 10, 11 and 21 to 23 currently on file with new pages 4, 10, 11 and 21 to 23 attached herewith. Pages 22 and 23 have been retyped. To assist the Examiner the hand-amended copy of these pages is also attached.

Claims 20 and 21 have been combined to deal with the objection raised at section (II) of the Examination Report. Subsequent claims have been renumbered accordingly.

The claim dependency of new claim 23 (original claim 24) has been corrected to deal with the objection raised at section (III) of the Examination Report.

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