Patent Information Initiative for Medicines
Pat-INFORMED

December 2019

Thomas Bombelles

Head, NGO and Industry Relations

What is Pat-INFORMED?

- The **Pat**ent **In**formation **In**itiative **for Med**icines, (Pat-INFORMED) is a search engine to help pharmaceutical procurement agencies determine the patent status of a medicine.
- It **facilitates access to and availability of pharmaceutical patent information** to inform procurement decisions.
- Pat-INFORMED is a partnership among WIPO, IFPMA and 20 global pharma companies.

What Pat-INFORMED is NOT?

- A one-stop shop listing all information relevant to procurement.
- A linkage system (listing in Pat-INFORMED has no legal implication).
- A freedom-to-operate analysis tool.

Why create Pat-INFORMED?

- Greater transparency of patent information on medicines.
- "WIPO Development Agenda Goal 31:"… Better access to publicly available patent information…
- UN Sustainable Development Goals:
  - Goal 3. Promote health and well-being
  - Goal 9. Foster innovation
  - Goal 17. Strengthen implementation through partnerships

Which therapeutic areas does Pat-INFORMED cover?

- HIV/ AIDS
- Cardiovascular diseases
- Diabetes
- Hepatitis C
- Oncology
- Respiratory conditions

+

All products on the WHO EML that are not within these therapy areas

→ Companies are now populating the database to cover all small-molecules therapeutic areas.

Who can use Pat-INFORMED?

- The Pat-INFORMED database is accessible to everybody.
- The follow-on enquiry facility is limited to national and international procurement agencies. Information received is not confidential.

What's in Pat-INFORMED?

- 20 Companies (21 as January 1st)
- 227 INNs (169 at launch)
- 617 Patent Families (600 at launch)
- 20,314 Individual patents and SPC/PTE (14,000 at launch)

Who is Using Pat-INFORMED?

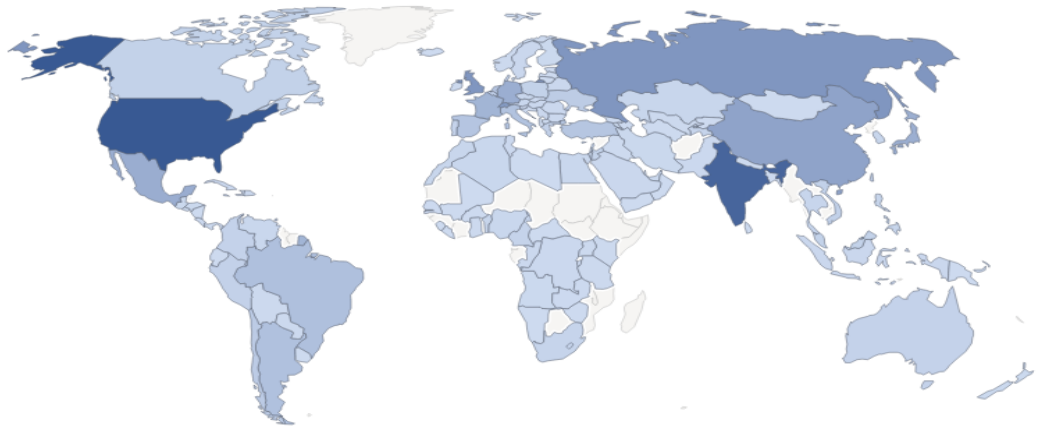
- Landing page accessed 22k times since launch. +2000 individual searches in the last 30 days.
- Greatest number of searches (74) for sofosbuvir (Hep C)
- Most products are searched for once or twice
- Wide geographical distribution of users

PAT-INFORMED

Patent Information Initiative for Medicines

Hosted by WIPO

5,601 visits



Continent

CONTINENT	VISITS
Europe	2,212
Asia	1,638
North America	903
South America	437
Africa	255
Central America	75
Oceania	52
Unknown	29

Country

COUNTRY	VISITS
United States	646
India	583
Russia	331
United Kingdom	330
Switzerland	301
China	265
Mexico	216
Germany	212
Japan	208
France	179
Brazil	127
Argentina	122
Italy	111
Spain	100
Netherlands	99
Turkey	95
Hong Kong SAR China	74
Chile	71
Taiwan	68
Ukraine	67
Belgium	64
Vietnam	45

Thank you

For further information contact:

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- +41 22 338 82 96
- thomas.bombelles@wipo.int

WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

Patent Information Initiative for Medicines Pat-INFORMED

Guilherme Cintra
Director, Innovation Policy (IFPMA)

IFPMA

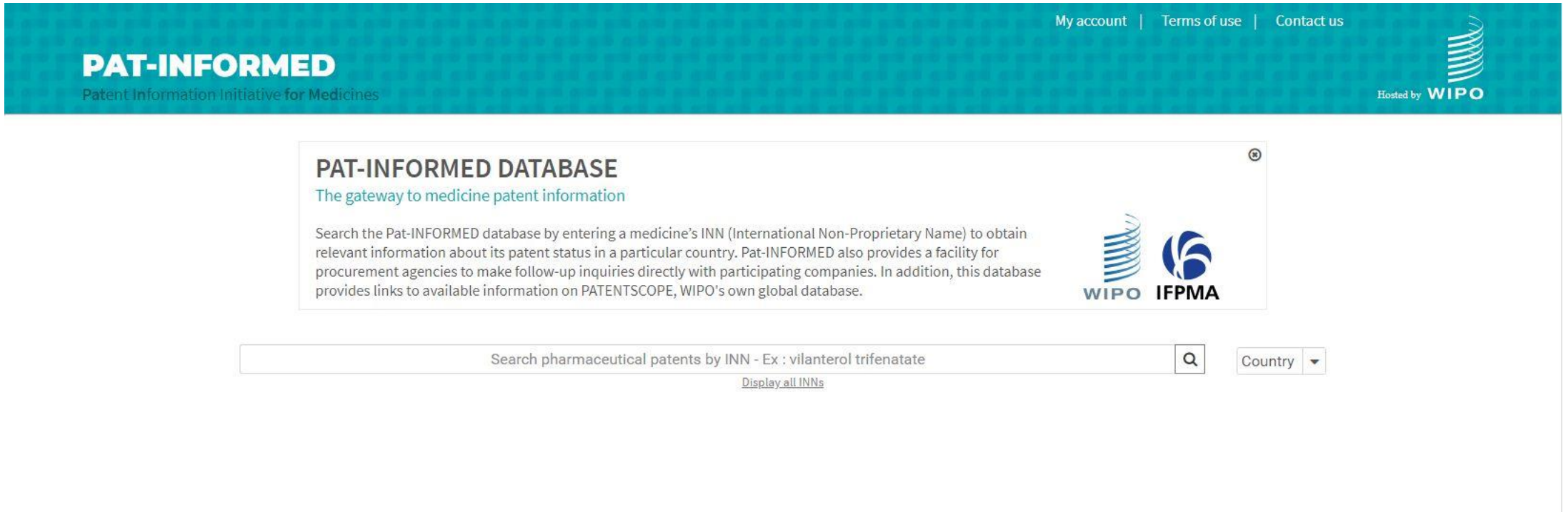
Pat-INFORMED: Key functionalities

DATABASE

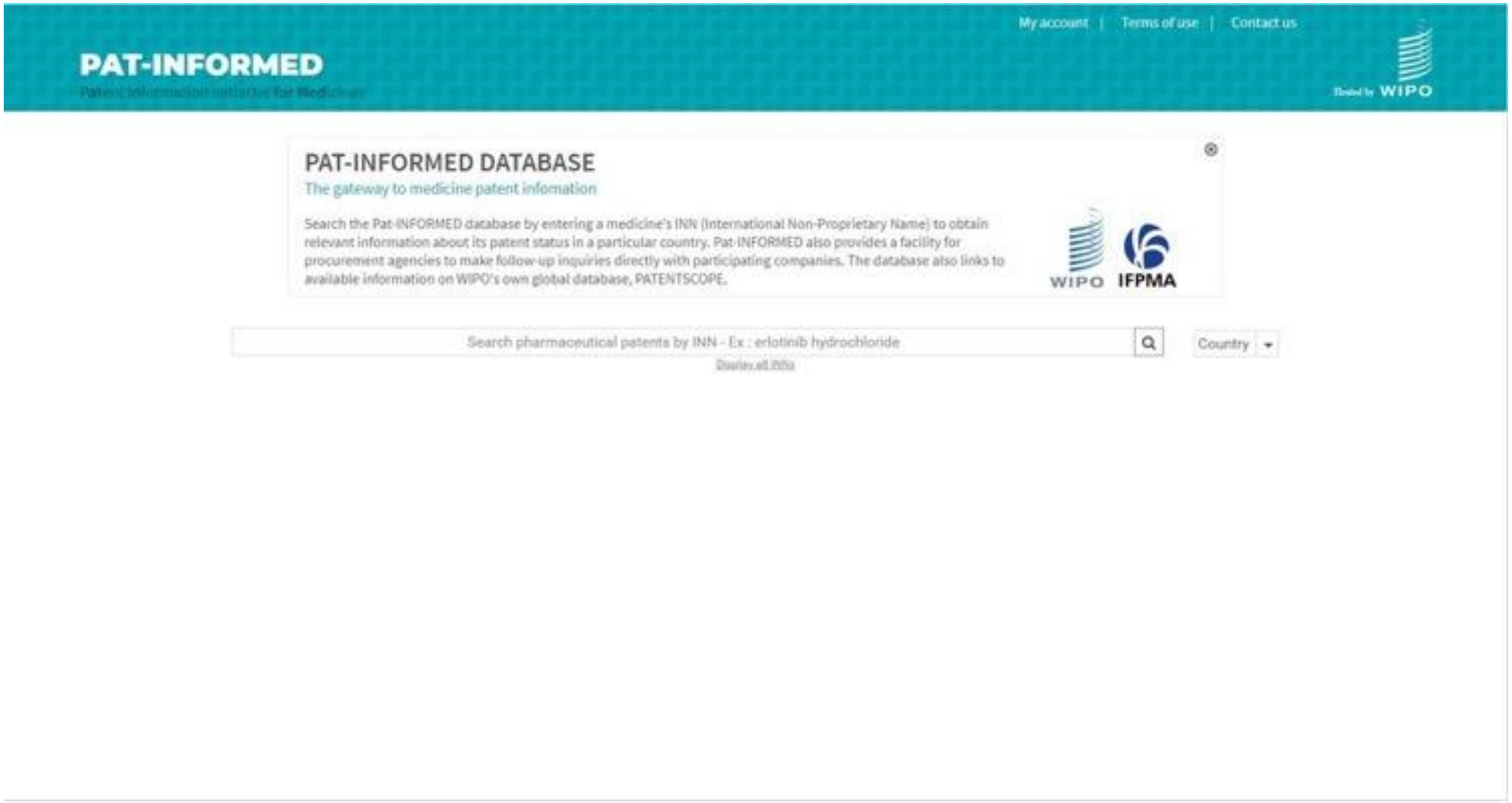
DATABASE that helps pharmaceutical procurement experts around the world access patent information by country.

FACILITY TO REQUEST

It offers procurement agencies and experts the **FACILITY TO REQUEST** additional information directly from the patent holders.



IFPMA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PAT-INFORMED
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PAT-INFORMED DATABASE
The gateway to medicine patent information
Search the Pat-INFORMED database by entering a medicine's INN (International Non-Proprietary Name) to obtain relevant information about its patent status in a particular country. Pat-INFORMED also provides a facility for procurement agencies to make follow-up inquiries directly with participating companies. The database also links to available information on WIPO's own global database, PATENTSCOPE.
WIPO
IFPMA
Search pharmaceutical patents by INN - Ex : erlotinib hydrochloride
Country

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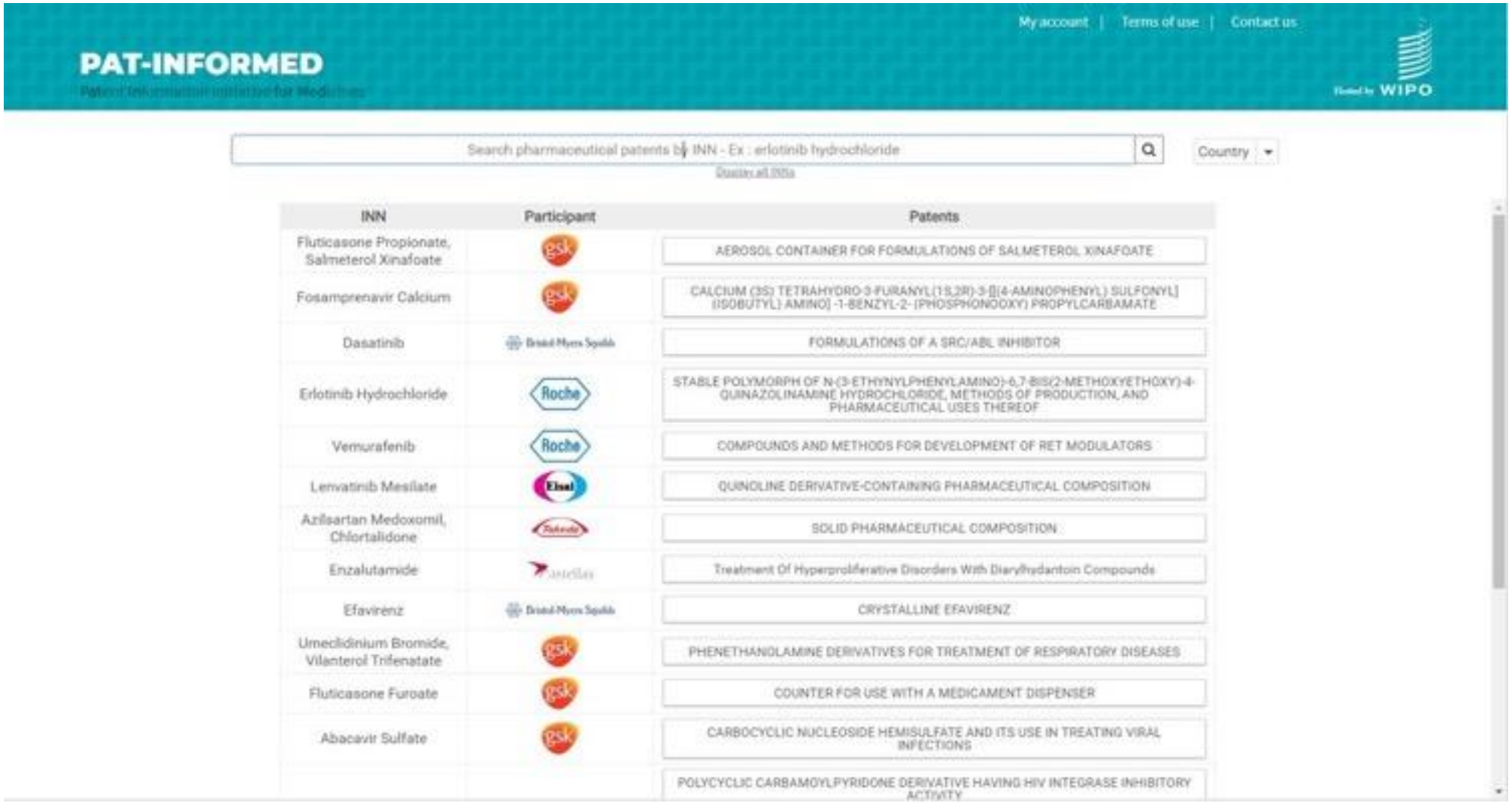
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PAT-INFORMED
Hosted by WIPO
Search pharmaceutical patents by INN - Ex : erlotinib hydrochloride
Country
Display all INNs
INN
Participant
Patents
Fluticasone Propionate, Salmeterol Xinafoate
AEROSOL CONTAINER FOR FORMULATIONS OF SALMETEROL XINAFOATE
Fosamprenavir Calcium
CALCIUM (3S) TETRAHYDRO-3-FURANYL (1S,2R)-3-[[(4-AMINOPHENYL) SULFONYL] (ISOBUTYL) AMINO] -1-BENZYL-2- (PHOSPHONOOXY) PROPYLCARBAMATE
Dasatinib
FORMULATIONS OF A SRC/ABL INHIBITOR
Erlotinib Hydrochloride
STABLE POLYMORPH OF N-(3-ETHYNYLPHENYLAMINO)-6,7-BIS(2-METHOXYETHOXY)-4-QUINAZOLINAMINE HYDROCHLORIDE, METHODS OF PRODUCTION, AND PHARMACEUTICAL USES THEREOF
Vemurafenib
COMPOUNDS AND METHODS FOR DEVELOPMENT OF RET MODULATORS
Lenvatinib Mesilate
QUINOLINE DERIVATIVE-CONTAINING PHARMACEUTICAL COMPOSITION
Azilsartan Medoxomil, Chlortalidone
SOLID PHARMACEUTICAL COMPOSITION
Enzalutamide
Treatment Of Hyperproliferative Disorders With Diarylhydantoin Compounds
Efavirenz
CRYSTALLINE EFAVIRENZ
Umeclidinium Bromide, Vilanterol Trifenatate
PHENETHANOLAMINE DERIVATIVES FOR TREATMENT OF RESPIRATORY DISEASES
Fluticasone Furoate
COUNTER FOR USE WITH A MEDICAMENT DISPENSER
Abacavir Sulfate
CARBOCYCLIC NUCLEOSIDE HEMISULFATE AND ITS USE IN TREATING VIRAL INFECTIONS
POLYCYCLIC CARBAMOYLPYRIDONE DERIVATIVE HAVING HIV INTEGRASE INHIBITORY ACTIVITY

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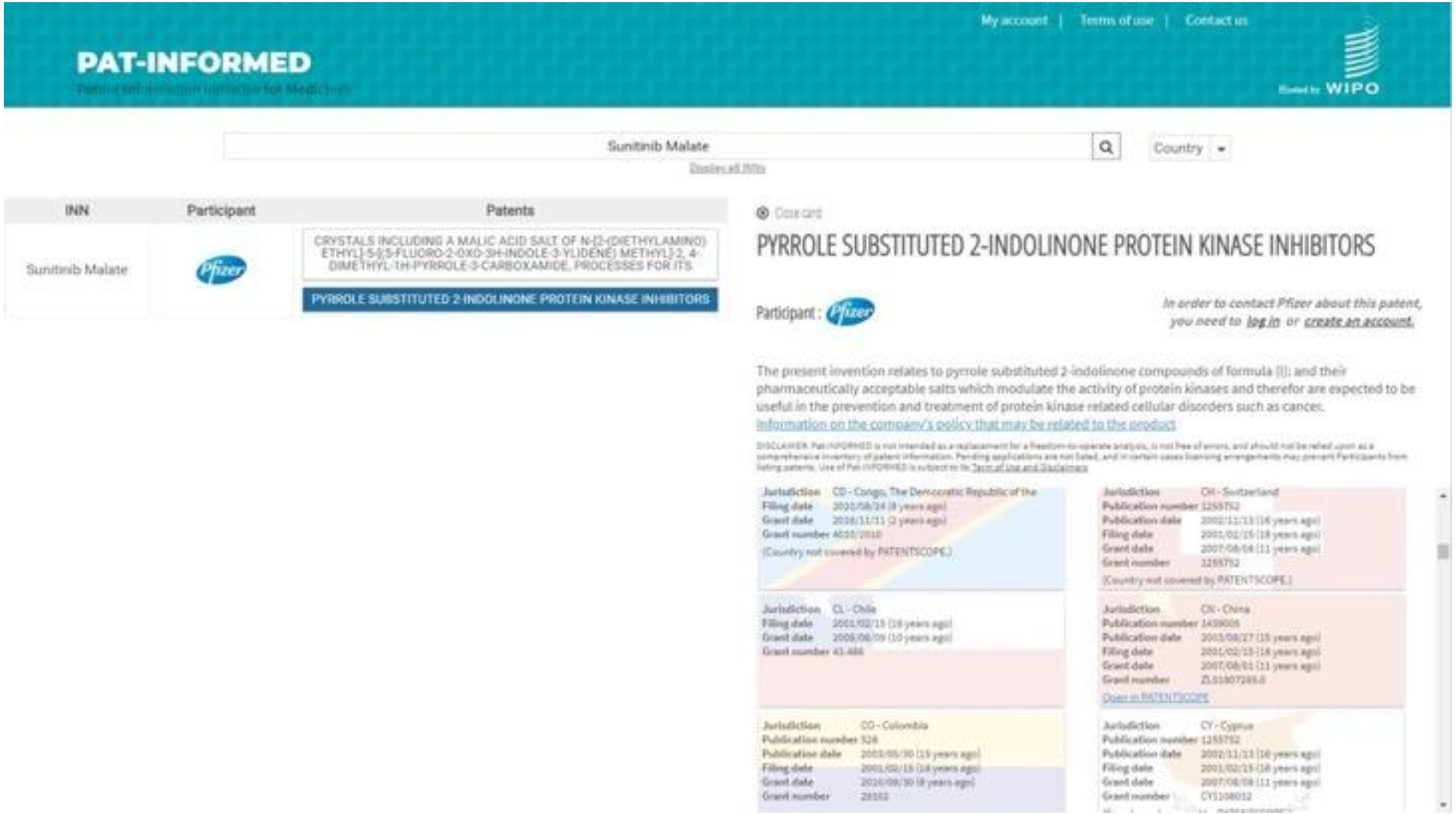
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Sunitinib Malate
Country
INN
Participant
Patents
Sunitinib Malate
CRYSTALS INCLUDING A MALIC ACID SALT OF N-[2-(DIETHYLAMINO) ETHYL]-5-[(5-FLUORO-2-OXO-3H-INDOLE-3-YLIDENE) METHYL]-2, 4-DIMETHYL-1H-PYRROLE-3-CARBOXAMIDE, PROCESSES FOR ITS
PYRROLE SUBSTITUTED 2-INDOLINONE PROTEIN KINASE INHIBITORS
Close card
PYRROLE SUBSTITUTED 2-INDOLINONE PROTEIN KINASE INHIBITORS
Participant :
In order to contact Pfizer about this patent, you need to log in or create an account.
The present invention relates to pyrrole substituted 2-indolinone compounds of formula (I); and their pharmaceutically acceptable salts which modulate the activity of protein kinases and therefor are expected to be useful in the prevention and treatment of protein kinase related cellular disorders such as cancer.
Information on the company's policy that may be related to the product
Jurisdiction CD - Congo, The Democratic Republic of the
Filing date 2010/08/24 (8 years ago)
Grant date 2018/11/11 (2 years ago)
Grant number 4010/2010
(Country not covered by PATENTSCOPE)
Jurisdiction CH - Switzerland
Publication number 1255752
Publication date 2002/11/13 (16 years ago)
Filing date 2001/02/15 (18 years ago)
Grant date 2007/08/08 (11 years ago)
Grant number 1255752
(Country not covered by PATENTSCOPE)
Jurisdiction CL - Chile
Filing date 2001/02/15 (18 years ago)
Grant date 2008/08/08 (10 years ago)
Grant number 43.466
Jurisdiction CN - China
Publication number 1439005
Publication date 2003/08/27 (15 years ago)
Filing date 2001/02/15 (18 years ago)
Grant date 2007/08/01 (11 years ago)
Grant number ZL01807269.0
Open in PATENTSCOPE
Jurisdiction CO - Colombia
Publication number 526
Publication date 2003/05/30 (15 years ago)
Filing date 2001/02/15 (18 years ago)
Grant date 2010/09/30 (8 years ago)
Grant number 28102
Jurisdiction CY - Cyprus
Publication number 1255752
Publication date 2002/11/13 (16 years ago)
Filing date 2001/02/15 (18 years ago)
Grant date 2007/08/08 (11 years ago)
Grant number CY1108032

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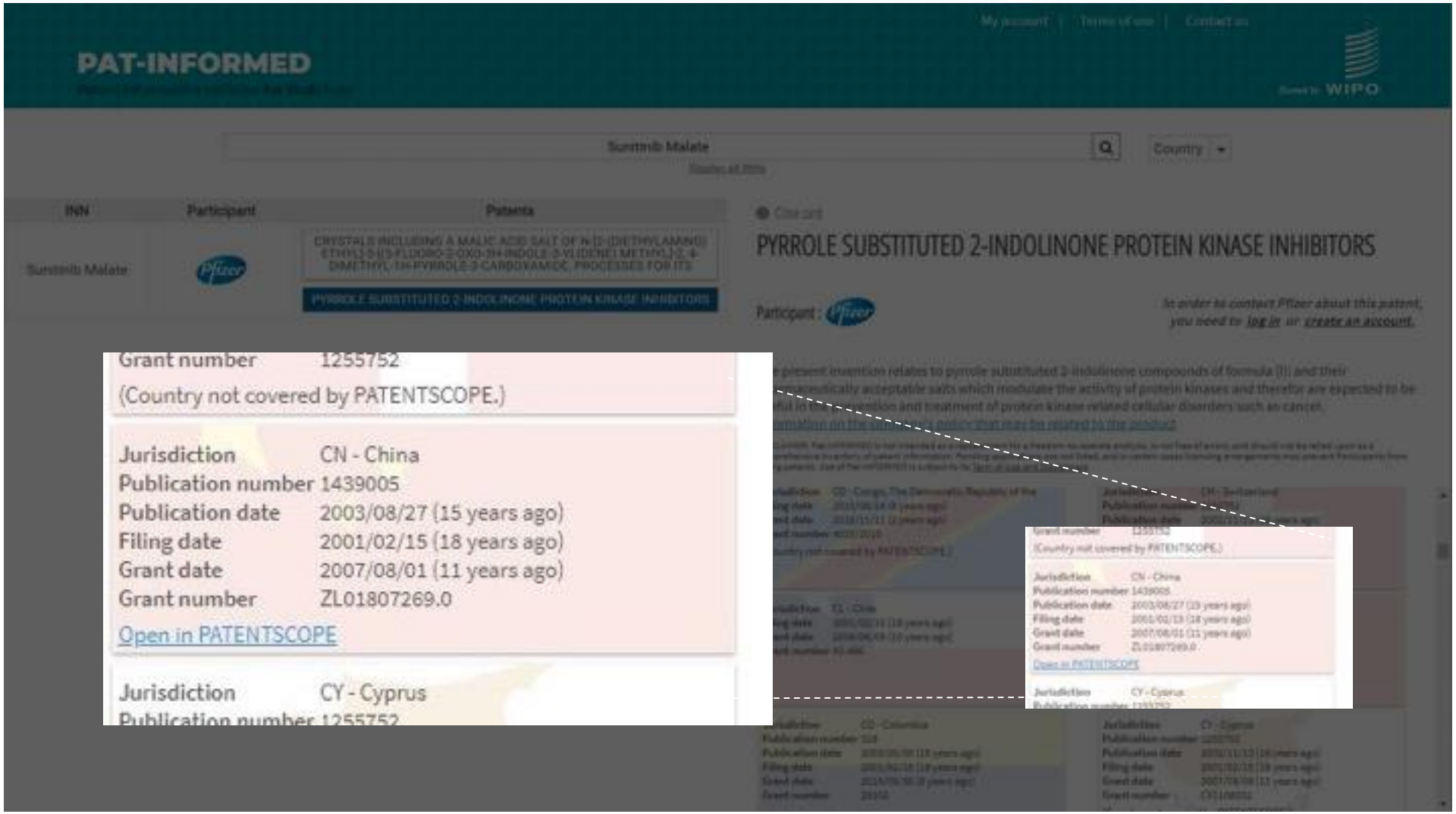
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Sunitinib Malate
Country
INN
Participant
Patents
Sunitinib Malate
PYRROLE SUBSTITUTED 2-INDOLINONE PROTEIN KINASE INHIBITORS
Participant :
Grant number 1255752
(Country not covered by PATENTSCOPE.)
Jurisdiction CN - China
Publication number 1439005
Publication date 2003/08/27 (15 years ago)
Filing date 2001/02/15 (18 years ago)
Grant date 2007/08/01 (11 years ago)
Grant number ZL01807269.0
Open in PATENTSCOPE
Jurisdiction CY - Cyprus

Machine translation

1. (CN1439005) Pyrrole substituted 2-indolinone protein kinase inhibitors

PermaLink

Application Number: 01807269.0 **Application Date:** 15.02.2001
Publication Number: 1439005 **Publication Date:** 27.08.2003
Grant Number: 1329390 **Grant Date:** 01.08.2007
Publication Kind : C
Prior PCT appl.: Application Number:PCTUS2001004813 ; Publication Number:2001060814 Click to see the data

IPC:
C07D 403/06
A61K 31/404
A61P 43/00
C07D 403/14
C07D 401/14

CPC:
C07D 233/56
C07D 207/33
C07D 209/44
C07D 231/12
C07D 249/08
C07D 401/12
C07D 401/14
C07D 403/06
C07D 403/12
C07D 403/14

Applicants:
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苏根公司
法马西亚及厄普约翰公司

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梁崇新

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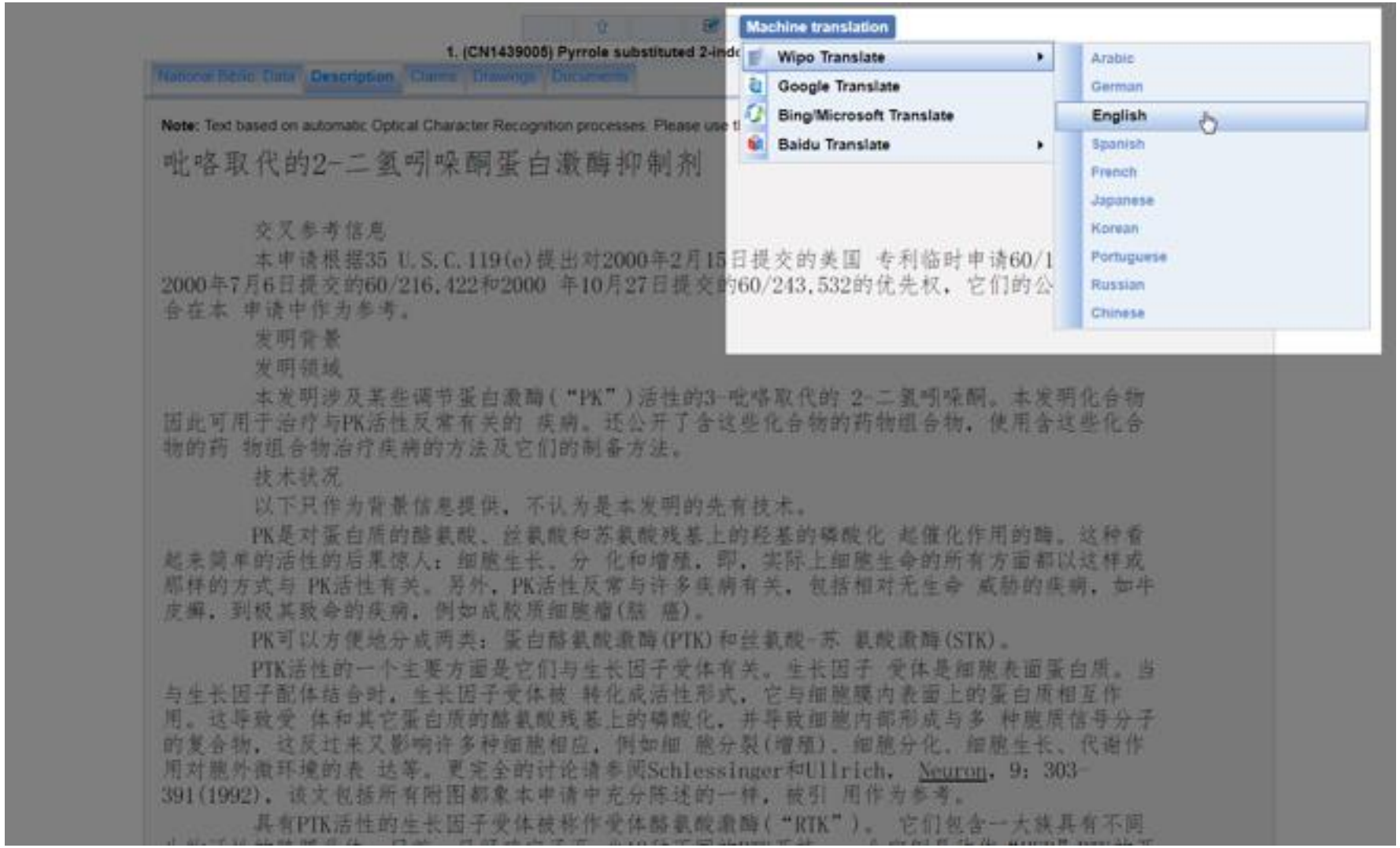

Machine translation
Wipo Translate
Google Translate
Bing/Microsoft Translate
Baidu Translate
Arabic
German
English
Spanish
French
Japanese
Korean
Portuguese
Russian
Chinese
Description
Note: Text based on automatic Optical Character Recognition processes. Please use t
吡咯取代的2-二氢吲哚酮蛋白激酶抑制剂
交叉参考信息
本申请根据35 U.S.C.119(e)提出对2000年2月15日提交的美国 专利临时申请60/1
2000年7月6日提交的60/216,422和2000 年10月27日提交的60/243,532的优先权，它们的公
合在本 申请中作为参考。
发明背景
发明领域
本发明涉及某些调节蛋白激酶("PK")活性的3-吡咯取代的 2-二氢吲哚酮。本发明化合物
因此可用于治疗与PK活性反常有关的 疾病。还公开了含这些化合物的药物组合物，使用含这些化合
物的药 物组合物治疗疾病的方法及它们的制备方法。
技术状况
以下只作为背景信息提供，不认为是本发明的先有技术。
PK是对蛋白质的酪氨酸、丝氨酸和苏氨酸残基上的羟基的磷酸化 起催化作用的酶。这种看
起来简单的活性的后果惊人：细胞生长、分 化和增殖，即，实际上细胞生命的所有方面都以这样或
那样的方式与 PK活性有关。另外，PK活性反常与许多疾病有关，包括相对无生命 威胁的疾病，如牛
皮癣，到极其致命的疾病，例如成胶质细胞瘤(脑 癌)。
PK可以方便地分成两类：蛋白酪氨酸激酶(PTK)和丝氨酸-苏 氨酸激酶(STK)。
PTK活性的一个主要方面是它们与生长因子受体有关。生长因子 受体是细胞表面蛋白质。当
与生长因子配体结合时，生长因子受体被 转化成活性形式，它与细胞膜内表面上的蛋白质相互作
用。这导致受 体和其它蛋白质的酪氨酸残基上的磷酸化，并导致细胞内部形成与多 种胞质信号分子
的复合物，这反过来又影响许多种细胞相应，例如细 胞分裂(增殖)、细胞分化、细胞生长、代谢作
用对胞外微环境的表 达等。更完全的讨论请参阅Schlessinger和Ullrich, Neuron, 9: 303-
391(1992)，该文包括所有附图都象本申请中充分阐述的一样，被引 用作为参考。
具有PTK活性的生长因子受体被称作受体酪氨酸激酶("RTK")。 它们包含一大族具有不同

1. (CN1439005) Pyrrole substituted 2-indolinone protein kinase inhibitors

National Biblio. Data | Description | Claims | Drawings | Documents

Note: Text based on automatic Optical Character Recognition processes. Please use the PDF version for legal matters

Pyrrole-substituted 2-dihydroindol-one protein kinase inhibitor

Cross-reference information

The application is 35 U/S/C119. (e) and claims the benefit of US provisional application no. 60/182,710 filed feb. 15, 2000., 60/216 filed on jul. 6, 2000, and 60/243,532 filed oct. 27, 2000 , and their disclosures are all incorporated herein by reference.

Background

Field of the invention

The invention relates to certain regulatory protein kinases ("PK")) and the active 3-pyrrole substituted 2-dihydroindol-one compound can be used for treating diseases related to PK activity abnormality. Also disclosed is a pharmaceutical composition containing these compounds., the invention relates to a method for treating diseases by using a pharmaceutical composition containing the compounds and a preparation method of the pharmaceutical composition

Technical condition

The following is only provided as background information and is not considered to be a prior art of the present invention

Pk is tyrosine for protein, serine and the hydroxyl on the threonine residue, so that the result of the enzyme with simple activity is surprising.: cell growth, differentiation and proliferation, in this way, all aspects of the cell life are related to the pk activity in such a way that the cell life is in the same or similar manner. In addition, the pk activity abnormality is related to a number of diseases, including a disease that is relatively free of life threats, such as psoriasis, to extremely fatal diseases, such as glioblastoma (brain cancer)

The pk can be conveniently classified into two types of protein tyrosine kinase (pTIF)) and serine-threonine kinase (sThe)

One major aspect of PTK activity is that they are related to growth factor receptors. The growth factor receptor is a cell surface protein. When combined with the growth factor ligand, the growth factor receptor is converted into an active form, with the protein on the inner surface of the cell membrane; This leads to phosphorylation on tyrosine residues of receptors and other proteins, and a compound with a plurality of cytoplasmic signal molecules is formed in the cells, which in turn affect many kinds of cells, such as cell division (proliferation), cell differentiation, cell growth 、代谢作用对胞外微环境的表达等。更完全的讨论请参阅Schlessinger和Ullrich， Neuron，9：303- 391(1992)，该文包括所有附图都象本申请中充分陈述的一样，被引用作为参考。

具有PTK活性的生长因子受体被称作受体酪氨酸激酶("RTK")。它们包含一大族具有不同生物活性的跨膜受体。目前，已经确定了至少19种不同的RTK亚族。一个实例是称作"HER"RTK的亚族，它包括EGFR(上皮生长因子受体)、HER2、HER3和HER4。这些RTK 组成一个胞外糖基化配体结合域、一个跨膜域和一个胞内胞质催化域，它能将蛋白质上的酪氨酸残基磷酸化。

另一个RTK亚族包括胰岛素受体(IR)、胰岛素样生长因子I受体(IGF-1R)和与胰岛素受体有关的受体(IRR)。IR和IGF-1R 与胰岛素、IGF-1和IGF-II相互作用，形成由两个完全胞外糖基化的α亚基和两个穿过细胞膜并包含酪氨酸激酶域的β亚基构成的异四聚体。

第三个RTK亚族被称作血小板源性生长因子受体("PDGFR") 组，其中包括PDGFRα、PDGFRβ、CSFIR、c-kit和c-fms。这些受体由含数目不定的

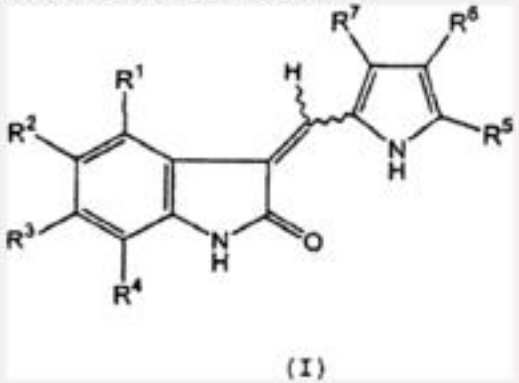
1. (CN1439005) Pyrrole substituted 2-indolinone protein kinase inhibitors

National Biblio Data | Description | Claims | Drawings | Documents

Note: Text based on automatic Optical Character Recognition processes. Please use the PDF version for legal matters

权利要求书

1. 式(I)化合物或其可药用的盐：



(I)

其中：

R^1选自氢，烷基和$-C(O)NR^8R^9$；

R^2选自氢，卤素，烷氧基，氰基，芳基和$-S(O)_2NR^{13}R^{14}$；

R^3选自氢，烷氧基，$-(CO)R^{15}$，芳基，杂芳基和$-S(O)_2NR^{13}R^{14}$；

R^4选自氢；

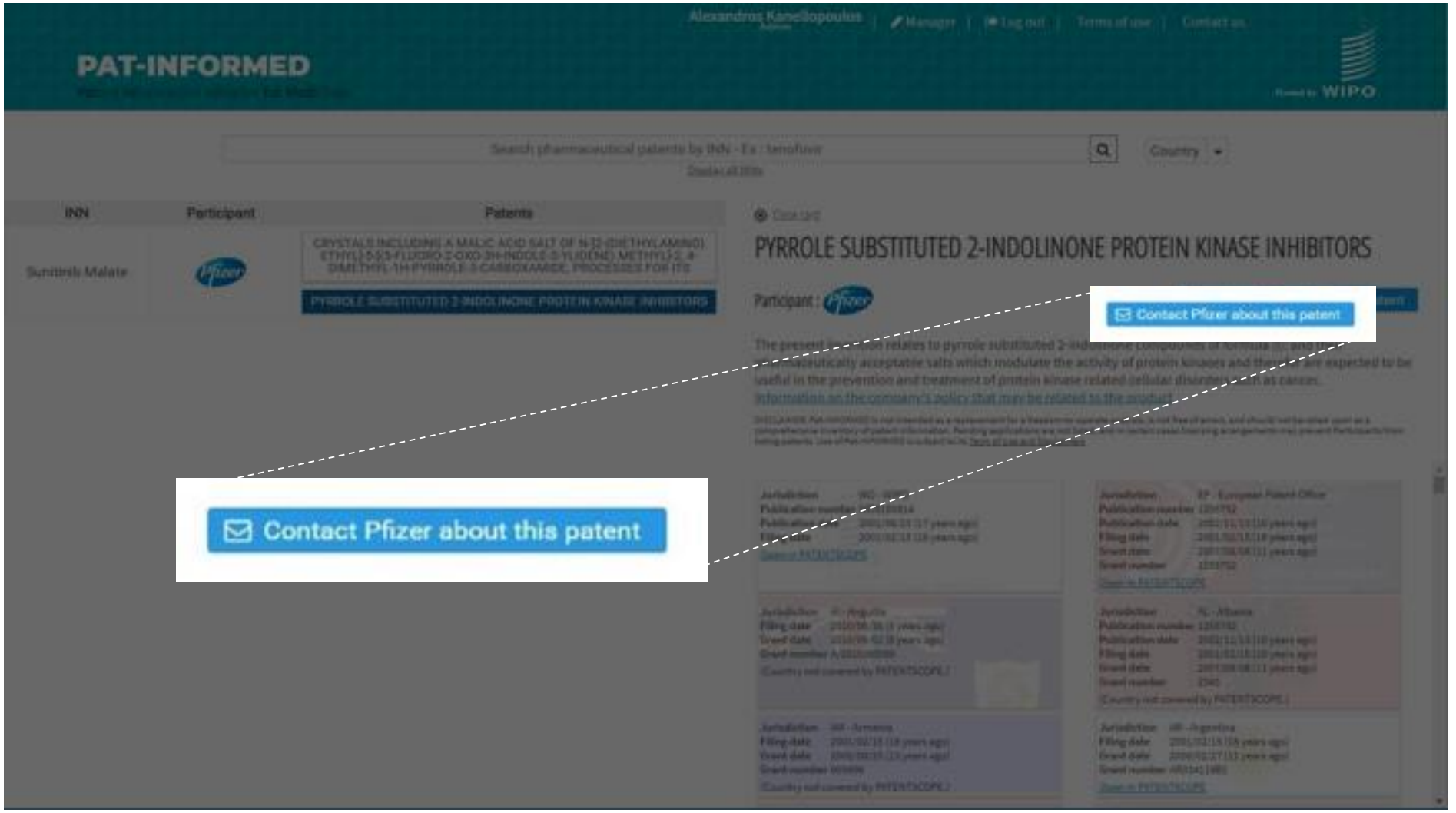
R^5选自氢和烷基；

R^6是$-C(O)R^{10}$，

R^7选自氢，烷基和芳基；

R^8和R^9独立地选自氢和芳基；

R^{10}是$-N(R^{11})(CH_2)_n-R^{12}$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Sunitinib Malate
PYRROLE SUBSTITUTED 2-INDOLINONE PROTEIN KINASE INHIBITORS
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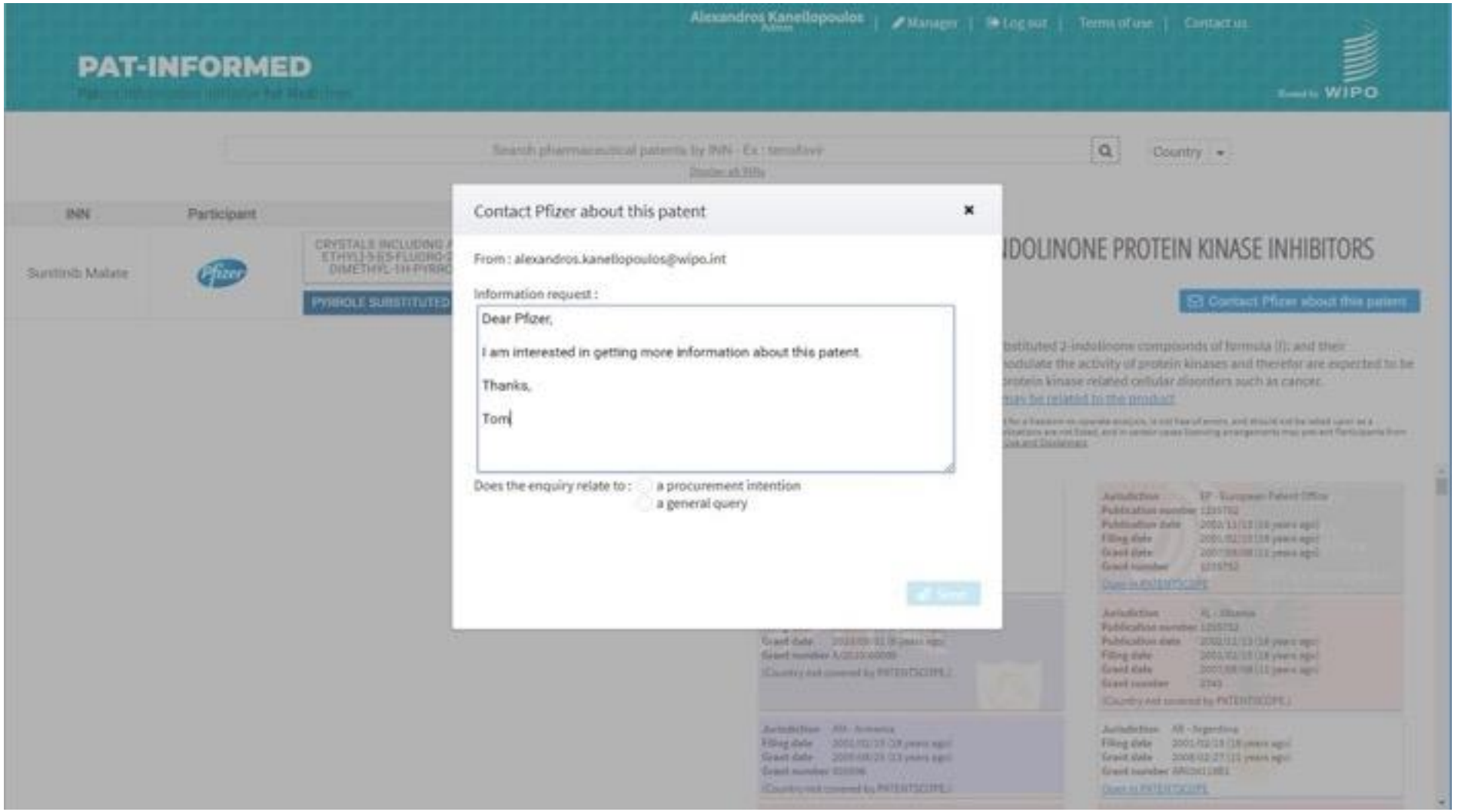
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Sunitinib Malate
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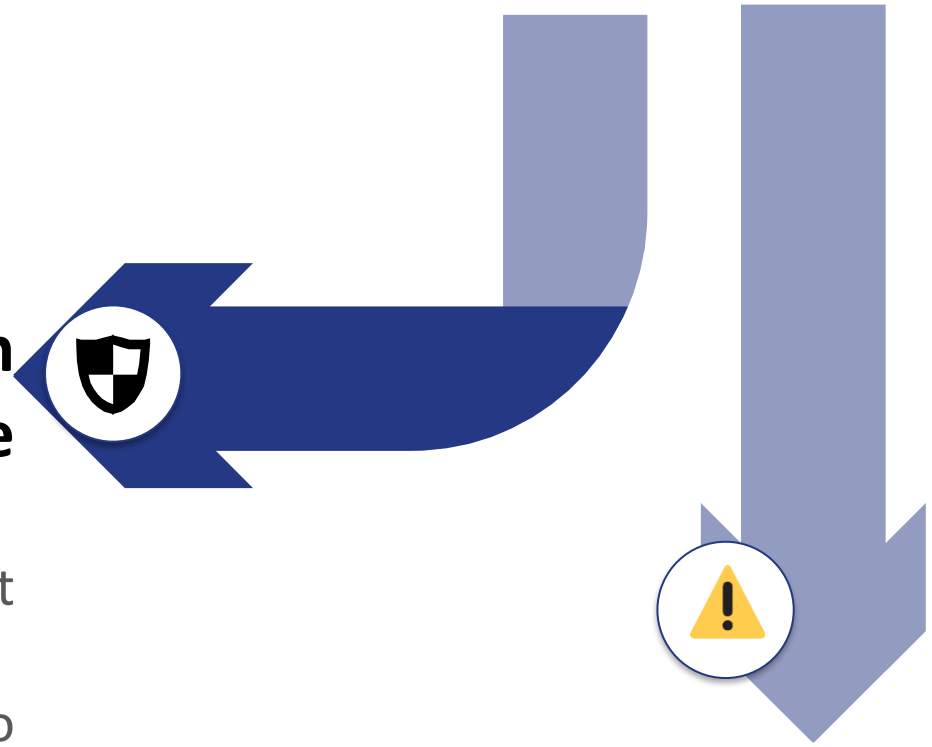
Contact Pfizer about this patent
From : alexandros.kanellopoulos@wipo.int
Information request :
Dear Pfizer,
I am interested in getting more information about this patent.
Thanks,
Tom
Does the enquiry relate to :
a procurement intention
a general query
DOLINONE PROTEIN KINASE INHIBITORS
Contact Pfizer about this patent

Pat-INFORMED limitations

While Pat-INFORMED can be an important tool in informing procurement, it has limitations



No Freedom to Operate

Pat-INFORMED does not provide freedom to operate and is not part of a regulated "linkage" system.

Not Error-Free

It is a database for general information purposes and is not free of errors.

Public Information

All information, including the advise received in the follow-on enquiry facility, is non-confidential.

Agencies are free to challenge the information and/or seek new advice.

IFPMA

A living database, with room for improvement

Honest feedback encouraged

- “Report Inaccuracies” tool implemented to improve data quality.
- Changes to the landing page and disclaimers to improve clarity that the data comes directly from the companies.

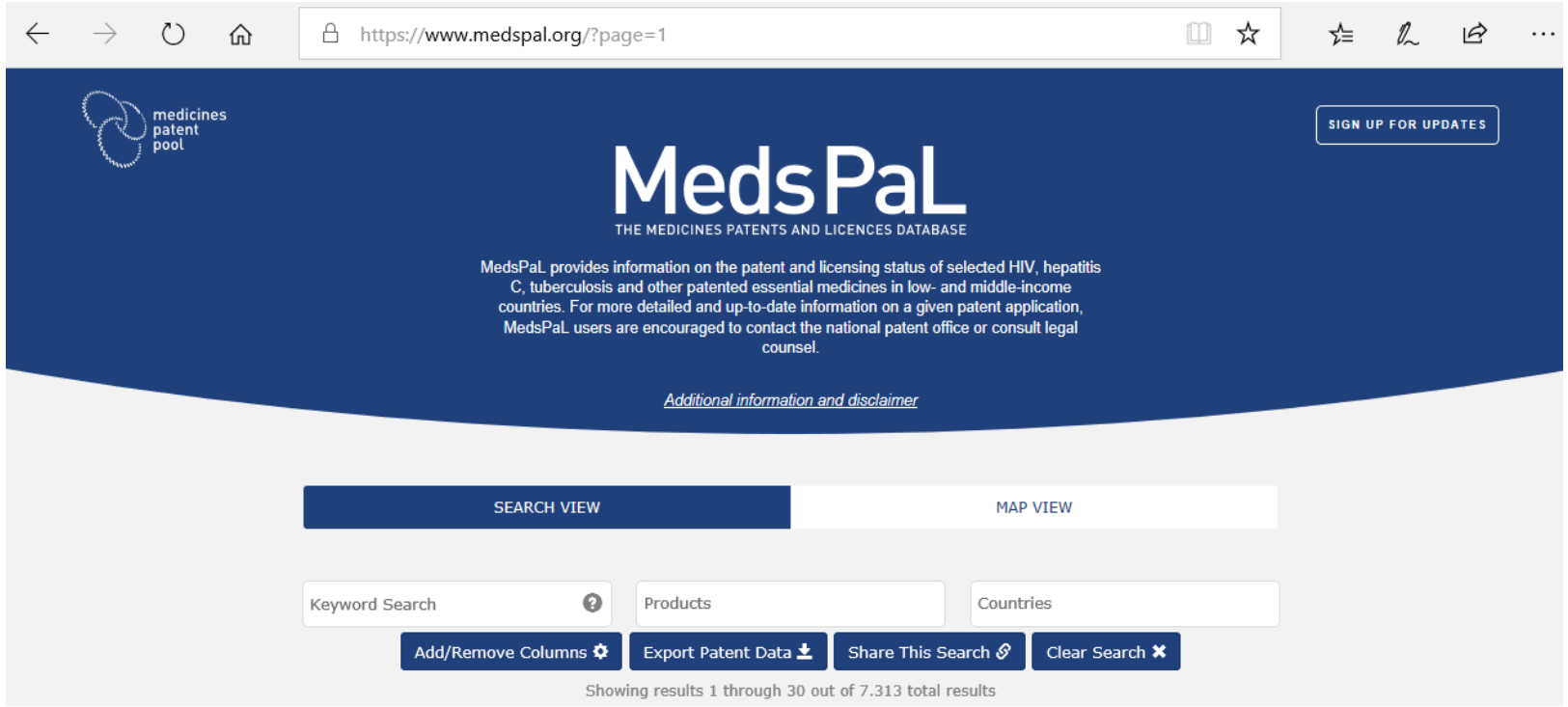
On the pipeline

- Discussion on feasibility of listing expiry dates and patent applications
- Discussion on the inclusion of biologics
- Improved links with Patentscope, specially for regional patents offices

IFPMA

MedsPaL – Another important sources of patent information

www.medspal.org



Country	Product Name(s)	Patent Description	Patent Status	Patent Application Number	Expected Expiry Date (dd/mm/yyyy)
Afghanistan	Abacavir 300 mg Licence(s): Bilateral licences for Sub-Saharan Africa, low-income countries and Least Developed Countries	Abacavir compound	Not Filed		
Afghanistan	Abacavir 20 mg/ml Abacavir 60 mg Licence(s): Bilateral licences for Sub-Saharan Africa, low-income countries and Least Developed Countries MPP licence on paediatric formulations of abacavir (ABC)	Abacavir compound	Not Filed		

IFPMA

Thank you

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