



No. 08-124716- -00013-0000

Fecha: 2013-02-13 15:38:55 Dep. 2020 DIR.NUEVASCR
Tra. 11 PATENTEIYII Eve: 378 FASENACIONALI
Act. 412 REPOSPRESRECU Folios: 20

Señor

SUPERINTENDENTE DE INDUSTRIA Y COMERCIO

E.

S.

D.

REF: Expediente No. PCT/08-124716

TÍTULO SOLICITADO: "DERIVADOS DE PIRROLO [2,3-d] PIRIMIDINA
COMO MODULADORES DE LA PROTEÍNA
QUINASA"

PUBLICACIÓN: Gaceta 611 del 31/12/2009, N° de publicación 943.

SOLICITANTE: NOVARTIS AG Y ASTEX THERAPEUTICS LTD.

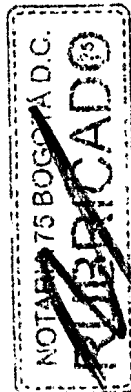
APODERADO: CARLOS R. OLARTE

TRÁMITE: Recurso de Reposición y en subsidio el de apelación en
contra de la Resolución 78932 de diciembre 20 de 2012 por
la cual se concede una patente de invención tramitada
bajo el número de expediente PCT/08-124716

TITO NOÉ PARRA MURILLO, mayor de edad, identificado como aparece al pie de mi
firma, reconocido apoderado de la sociedad LAFRANCOL S.A.S. en el asunto de la
referencia, de manera respetuosa, y dentro de los términos de ley, presento Recurso de
Reposición y en subsidio de apelación contra la Resolución 78932 de diciembre 20 de
2012 por la cual se concedió a la solicitud PCT/08-124716 el privilegio de patente de
invención.

I. PETICIÓN

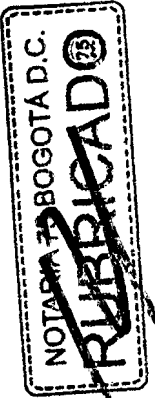
Sírvase, Señor Superintendente, reponer íntegramente la Resolución 78932 de diciembre 20
de 2012, por la cual se declaró infundada la oposición presentada y se otorgó el privilegio
de patente solicitado en el expediente de la referencia, y en su remplazo emitir otra que, con



fundamento en los argumentos expuestos en el escrito de observación y en el presente escrito, declare fundada dicha oposición y niegue el privilegio de patente mencionado, procediendo luego al definitivo archivo del expediente en cuestión.

II. ARGUMENTOS SOBRE LOS FUNDAMENTOS DE LA CONCESIÓN Y MOTIVOS DE INCONFORMIDAD

La Resolución 78932 de diciembre 20 de 2012, que concede el privilegio de patente de invención solicitado para el capítulo reivindicatorio del expediente 08-124716 titulado “**Derivados de pirrolo [2,3-d] Pirimidina como moduladores de la proteína quinasa**”, viola flagrantemente la Decisión 486 si se tiene en cuenta que existían motivos suficientes para afectar los requisitos de novedad y nivel inventivo de la solicitud en mención. Es evidente que el solicitante y la Resolución cometen un error cuando afirman que la oposición presentada por mi representada no muestra ningún tipo de argumento soportado técnicamente, ni desvirtúa la patentabilidad del objeto de estudio, declarándola infundada por cuanto, al momento de presentación del escrito de oposición se dejó en claro que para el presente caso nos encontramos frente a una combinación de compuestos, lo cual indudablemente afecta el requisito de nivel inventivo, éste mismo indispensable para acceder a cualquier beneficio patentario.



Así las cosas, me permito reiterar que la concesión de patente objeto del presente escrito se ve afectada por los documentos del estado del arte que fueron presentados inicialmente en el escrito de observación, por lo cual, basado en lo siguiente, solicito respetuosamente a ese Despacho dar análisis completo y a cabalidad sobre los siguientes documentos, los cuales sin lugar a dudas objetan la concesión en mención, toda vez que develan de manera expresa y sucinta lo que se pretende proteger en la presente solicitud.

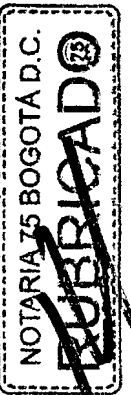
Dicho así, me permito manifestar que agentes tales como Leflunomida, Cisplatino, Carboplatino, Gemcitabina, Doxorubicina, Rapamicina, entre otros, han sido ampliamente divulgados en el sector químico-farmacéutico, y concretamente se han develado materias muy similares, las cuales ruego a ese Despacho analizar, en los siguientes documentos:

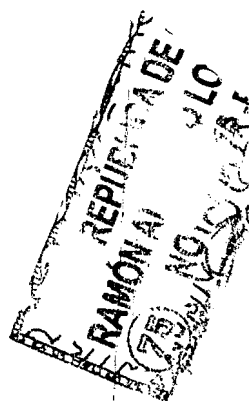
- DE 2854439
- US 4284786
- DE 2318020
- DE 2329485
- NL 7307863

- US 4140707
- GB 2136425
- US 4808614
- ZA 6802378
- US 3590028
- DE 2347682
- US 3929992

Así como resulta imprescindible manifestar que los anteriores documentos deben ser analizados a profundidad y cabalidad para así determinar finalmente si afectan o no la novedad y nivel inventivo de la presente solicitud, toda vez que en nuestra opinión se revelan materias muy similares, también es necesario reiterar que la solicitud de la referencia pretende proteger mediante el derecho patentario objetos que no son considerados invenciones. Es claro que una invención es toda creación humana que permita transformar la materia o energía que existe en la naturaleza, para su aprovechamiento por los seres humanos y satisfacer sus necesidades concretas. De igual modo, como ya se mencionó, según los parámetros de la Decisión 486 y normas concordantes, serán patentables las invenciones que cumplan con los requisitos de novedad, nivel inventivo y aplicación industrial. No obstante, puede observarse que la solicitud en comento pretende reivindicar combinaciones, las cuales no se consideran invenciones. En este sentido, la mezcla (Combinaciones) de productos (Moléculas) conocidos y su variación, bien sea en uso, forma, dimensión o de materia, NO se consideran invenciones por cuanto no son susceptibles de aplicación industrial, nivel inventivo y novedad, luego NO pueden acceder a beneficios patentarios. Por lo tanto, se suma una circunstancia más que imposibilita definitivamente la concesión de la solicitud en mención.

Y sobre el particular, es imprescindible señalar que un efecto sinérgico nuevo no se considera inventivo como tal, dado que puede ser obvio para una persona versada en la materia, cosa que sucede en el presente caso. En palabras del Doctor Carlos Correa, *“El efecto sinérgico entre dos o más drogas se puede considerar un “descubrimiento” y no una “invención”, dado que la sinergia ocurre en el cuerpo y se descubre a través de ensayos clínicos. Asimismo, cabe destacar que, en algunos casos, las reivindicaciones de combinaciones pueden equivaler, en términos prácticos, a reivindicaciones sobre tratamientos médicos (cuya patentabilidad está excluida en la mayoría de los países), cuando sólo brindan un método para administrar una combinación de drogas conocidas. Asimismo, la combinación de drogas para evitar la resistencia particular a una de ellas es una práctica normal en el desarrollo farmacéutico y, por lo general, es evidente para el*





h
C
to
co

LA CRUZ

ANEXOS

1- International Search Report y el Written Opinion Of The International Searching Authority de la equivalente internacional WO 2007/140222.

En subsidio apelo.

Señor Superintendente,

TITO NOÉ PARRA MURILLO

C.C. 79.579.680 de Bogotá

T.P. 71168 del C. S de la J.

REPÚBLICA DE COLOMBIA
RAMÓN ALBERTO LOZADA DE LA CRUZ
NOTARIA 75 - BOGOTÁ D.C.

13 FEB 2013

Presentación Personal
Reconocimiento Contenido, Firma y Huella

Doy fe que este documento fue presentado
personalmente por quien se identificó como

Rafael Noa Rave Monto

con *cc 79 079 680 de Bogotá DC*

quien declaró, que reconoce
contenido, firma y huella



Autorizo reconocimiento

REPÚBLICA DE COLOMBIA
RAMÓN ALBERTO LOZADA DE LA CRUZ
NOTARIA 75 - BOGOTÁ D.C.

REP. FUDIGUA
1024 515.314 (2)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2007/069595

International filing date (day/month/year)
24.05.2007

Priority date (day/month/year)
26.05.2006

International Patent Classification (IPC) or both national classification and IPC

INV. A61K31/519 A61K31/52 A61K31/522 A61P1/00 A61P3/10 A61P9/00 A61P11/06 A61P15/00 A61P17/06
A61P17/00 A61P19/02 A61P25/28 A61P35/00 A61P35/02 A61P37/06 C07D487/04

Applicant
NOVARTIS AG

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Jakobs, Andreas

Telephone No. +31 70 340-2617



5

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2007/069595

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2007/069595

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of

☐ the entire international application

☒ claims Nos. 1-43 (partially)

because:

☒ the said international application, or the said claims Nos. 1-41 (with respect to subject matter under Art. 34(4)(a)(i) and Rule 67.1(iv)) relate to the following subject matter which does not require an international search (*specify*):

see separate sheet

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed (*specify*):

☒ no international search report has been established for the whole application or for said claims Nos. 1-43 (partially)

☐ a meaningful opinion could not be formed without the sequence listing; the applicant did not, within the prescribed time limit:

☐ furnish a sequence listing on paper complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ furnish a sequence listing in electronic form complying with the standard provided for in Annex C of the Administrative Instructions, and such listing was not available to the International Searching Authority in a form and manner acceptable to it.

☐ pay the required late furnishing fee for the furnishing of a sequence listing in response to an invitation under Rules 13ter.1(a) or (b).

☐ a meaningful opinion could not be formed without the tables related to the sequence listings; the applicant did not, within the prescribed time limit, furnish such tables in electronic form complying with the technical requirements provided for in Annex C-bis of the Administrative Instructions, and such tables were not available to the International Searching Authority in a form and manner acceptable to it.

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in electronic form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details

NOTARIA 75 BOGOTÁ D.C.
RUBRICAD

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2007/069595

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has, within the applicable time limit:
- ☒ paid additional fees
 - ☐ paid additional fees under protest and, where applicable, the protest fee
 - ☐ paid additional fees under protest but the applicable protest fee was not paid
 - ☐ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
 - ☐ the parts relating to claims Nos.

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>7,16</u>
	No: Claims	<u>1-6,8-15,17-43</u>
Inventive step (IS)	Yes: Claims	<u>7,16</u>
	No: Claims	<u>1-6,8-15,17-43</u>
Industrial applicability (IA)	Yes: Claims	<u>see separate sheet</u>
	No: Claims	

2. Citations and explanations

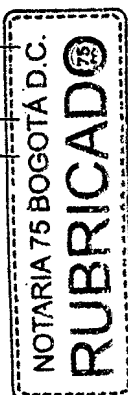
see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2007/069595

Box No. VI Certain documents cited

1. Certain published documents (Rules 43*bis*.1 and 70.10)
and /or
2. Non-written disclosures (Rules 43*bis*.1 and 70.9)
see form 210



Re Item III.

Claims 1-9,11-41 relate to subject-matter considered by this Authority to be covered by the provisions of Rule 67.1(iv) PCT. Consequently, no opinion will be formulated with respect to the subject-matter of these claims as far as relating to methods for treatment of the human or animal body by therapy (Article 34(4)(a)(I) PCT). The opinion regarding these claims is based on the alleged effects of the compound/composition.

Present claim 1,17-27 relate to a method defined by reference to the following parameters: a protein kinase-associated disorder, a disorder wherein the protein kinase is selected from abl, ATK, ber-abl, Blk, Brk, Btk, c-fms, e- kit, c- met, c-src, CDK, cRaf, CSFIR, CSK, EGFR, ErbB2, ErbB3, ErbB4, ERK, Fak, fes, FGFR1, FGFR2, FGFR3, FGFR4, FGFR5, Fgr, FLK-4, flt1, Fps, Frk, Fyn, GSK, Gst-Fikl, Hck, Her-2, Her-4, IOF1R, INS-R, Jak, JNK, KDR, Lck, Lyn, MEK, p38, PANHER, PDGFR,, PLK, PKC, PYK2, Raf, Rho, ros, SRC, t'ell t'e2, TRK, TYK2, UL97, VEGFR, Yes, and Zap70, Jakl, Jak2 and Jak3, Jak3 and CDK1, CDK2, CDK4, CDK5, CDK6, CDK7, CDK8 and CDK9.

The use of these parameters in the present context is considered to lead to a lack of clarity within the meaning of Article 6 PCT. It is impossible to compare the parameters the applicant has chosen to employ with what is set out in the prior art. The lack of clarity is such as to render a meaningful complete search impossible.

Present claims 1-7,10-43 relate to a rather elevated number number of possible compounds/uses. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the compounds/uses claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Consequently, the search has been carried out for those parts of the application which do appear to be clear (and concise), namely

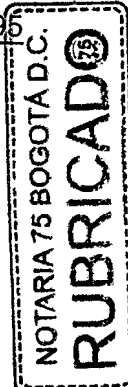
first invention: those compounds where A is N and the bond between X and Y is a single bond.

second invention: those compounds where A is N, R2 = H and R3 = cyclic and the bond between X and Y is a double bond.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2007/069595



No Written Opinion will be formulated with respect to subject matter which is not covered by the search report.

Re Item IV.

The separate inventions/groups of inventions are:

1. Claims 1-7, 11-43 (partially) 8, 9
Compounds of formula (I) wherein the bond between X and Y is a single bond and use thereof for regulating, modulating or inhibiting protein kinase activity, i.e. for treating the disorders specified in claims 28-39
2. Claims 1-7, 11-43 (partially) 10
Compounds of formula (I) wherein the bond between X and Y is a double bond and use thereof for regulating, modulating or inhibiting protein kinase activity, i.e. for treating the disorders specified in claims 28-39

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

The problem to be solved by the present application is to provide for a method of treating a protein kinase-associated disorder wherein the protein kinase-associated disorder is selected from the group consisting of blood vessel proliferative disorders, fibrotic disorders, mesangial cell proliferative disorders, metabolic disorders, allergies, asthma, thrombosis, nervous system diseases and cancer organ transplant rejection, lupus, multiple sclerosis, rheumatoid arthritis, psoriasis, Type 1 diabetes and complications from diabetes, cancer, asthma, atopic dermatitis, autoimmune thyroid disorders, ulcerative colitis, Crohn's disease, Alzheimer's disease, leukemia, an allergic or type I hypersensitivity reaction, asthma, graft versus host disease, rheumatoid arthritis, amyotrophic lateral sclerosis, multiple sclerosis, Familial amyotrophic lateral sclerosis, leukemia, lymphoma, autoimmune disease, dermatitis, allergic encephalomyelitis, myocarditis, relapsing polychondritis, rheumatic heart disease, glomerulonephritis, multiple sclerosis, neuritis, uveitis ophthalmia, polyendocrinopathies, purpura, Reiter's Disease, Stiff-Man Syndrome, autoimmune

B

pulmonary inflammation, autism, Guillain-Barre Syndrome, insulin dependent diabetes mellitus, autoimmune inflammatory eye, autoimmune thyroiditis, hypothyroidism, systemic lupus erythematosus, Goodpasture's syndrome, Pemphigus, Receptor autoimmunities, autoimmune hemolytic anemia (sic), autoimmune thrombocytopenic purpura, rheumatoid arthritis, mixed connective tissue disease, polymyositis/dermatomyositis, pernicious anemia, idiopathic Addison's disease, infertility, glomerulonephritis, bullous pemphigoid, Sjogren's syndrome, diabetes mellitus, adrenergic drug resistance, chronic active hepatitis, primary biliary cirrhosis, vitiligo, vasculitis, post-MI, cardiomyopathy syndrome, urticaria, atopic dermatitis, asthma, inflammatory myopathies, chronic active hepatitis, primary biliary cirrhosis and T-cell mediated hypersensitivity diseases.

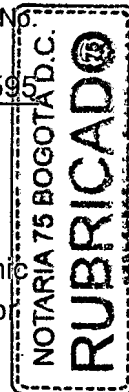
The proposed solution is to use a compound of Formula I.

WO2005023761 discloses the use of compounds of formula I for treating rheumatoid arthritis, osteoarthritis, Crohn's disease, ulcerative colitis, psoriatic arthritis, traumatic arthritis, rubella arthritis, inflammatory bowel disease, multiple sclerosis, graft versus host disease, systemic lupus erythematosus, toxic shock syndrome, irritable bowel syndrome, muscle degeneration, allograft rejections, pancreatitis, insulinitis, glomerulonephritis, diabetic nephropathy, renal fibrosis, chronic renal failure, gout, leprosy, acute synovitis, Reiter's syndrome, gouty arthritis, Behcet's disease, spondylitis, endometriosis, non-articular inflammatory conditions (including intervertebral disk syndrome conditions, bursitis, tendonitis, tenosynovitis, or fibromyalgic syndrome), acute or chronic pain (such as neurological pain, neuropathies, polyneuropathies, diabetes-related polyneuropathies, trauma, migraine, tension and cluster headache, Horton's disease, varicose ulcers, neuralgias, musculo-skeletal pain, osteo-traumatic pain, fractures, algodystrophy, spondylarthritis, fibromyalgia, phantom limb pain, back pain, vertebral pain, herniated intervertebral disc-induced sciatica, post-surgery pain, cancer-related pain, vascular pain, visceral pain, childbirth, or HIV-related pain), stroke, chronic heart failure, endotoxemia, reperfusion injury, ischemia reperfusion, myocardial ischemia, restenosis, thrombosis, angiogenesis, coronary heart disease, coronary artery disease, acute coronary syndrome, Takayasu arteritis, cardiac failure (including heart failure, cardiomyopathy, myocarditis, vasculitis, vascular restenosis, valvular disease

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2007/069595



or coronary artery bypass), hypercholesteremia, diseases or conditions related to blood coagulation or fibrinolysis (such as acute venous thrombosis, pulmonary embolism, thrombosis during pregnancy, hemorrhagic skin necrosis, acute or chronic disseminated intravascular coagulation, clot formation from surgery, long bed rest or long periods of immobilization, venous thrombosis, fulminant meningococemia, acute thrombotic strokes, acute coronary occlusion, acute peripheral arterial occlusion, massive pulmonary embolism, axillary vein thrombosis, massive iliofemoral vein thrombosis; occluded arterial or venous cannulae, cardiomyopathy, venoocclusive disease of the liver, etc.

WO2005080393 discloses the use of compounds of formula (I), even of compounds where the bond between X and Y is a single bond (see e.g. compound 66,179) which are inhibitors kinase activity, particularly FAK, Abl, BCR-Abl, PDGF-R, c-Kit, NPM-ALK, Flt-3, JAK2 and/or c-Met activity, that can be used not only as a tumor-inhibiting substance, for example in small cell lung cancer, but also as an agent to treat non-malignant proliferative disorders, such as atherosclerosis, thrombosis, psoriasis, scleroderma and fibrosis, as well as for the protection of stem cells, for example to combat the hemotoxic effect of chemotherapeutic agents, such as 5-fluoruracil, in asthma, for the treatment of diseases, which respond to an inhibition of the PDGF receptor kinase, the treatment of disorders arising as a result of transplantation, for example, allogenic transplantation, especially tissue rejection, such as especially obliterative bronchiolitis (OB), i. e. a chronic rejection of allogenic lung transplants etc.

WO2005107760 discloses that compounds of formula (I) are useful to treat prostate cancer, insulin signaling and Alzheimer's disease, neurodegenerative diseases, ataxia-telangiectasia, arthritis, asthma, inflammatory bowel disease, other inflammatory conditions, psoriasis and cancers e.g. melanoma.

According to Article 3(4)(iii) PCT, an international application shall comply with "the prescribed requirement of unity of invention". This means, as explained in Rule 13.1 PCT, that the application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept.

From the above cited documents, it appears that the use of above specified compounds in relation to the treatment of above specified disorders, and even via the claimed pharmacological targets, is known in the prior art and can not fulfil the role of special technical feature (general inventive concept) in the sense of Rule 13.2 PCT.

Accordingly there is no new technical effect linking the different groups of inventions.

Furthermore, the compounds of the proposed solutions do not share a significant structural element, nor do they belong to a same recognized class of chemical compounds.

In the present application no further technical feature can be distinguished that can be regarded as a "special technical feature" involved in the technical relationship among the different inventions.

Consequently the present application lacks unity of invention. /

In order to limit the number of subject matters as much as possible, the subjects were regrouped according to structural similarities. Each of the inventions is a distinct invention, characterised by its own special technical feature, defining the contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The search and Written Opinion have been established for both inventions.

Re Item V.

1 Reference is made to the following documents:

D1: WO 2005/023761 A (KEMIA INC [US]; BOMAN ERIK [US]; CEIDE SUSANA C [US]; DAHL RUSSELL [US] 17 March 2005 (2005-03-17)

D2: WO 2005/080393 A (IRM LLC [US]; CHOI HA-SOON [US]; WANG ZHICHENG [US]; GRAY NATHANAEL SC) 1 September 2005 (2005-09-01)

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)

International application No.

PCT/US2007/069595



- D3: GAULON C ET AL: "A General and Facile Route to New Trisubstituted Purin-8-ones" SYNTHESIS, GEORG THIEME VERLAG, STUTTGART, DE, vol. 13, 7 July 2005 (2005-07-07), pages 2227-2233, XP002413755 ISSN: 0039-7881
- D4: WO 2005/107760 A (IRM LLC [US]; HONG JIYONG [US]; GRAY NATHANAE S [US]; SCHULTZ PETER J) 17 November 2005 (2005-11-17)
- D5: CHOI, HA-SOON ET AL: "Design and synthesis of 7H-pyrrolo[2,3-d]pyrimidines as focal adhesion kinase inhibitors. Part 1" BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, 16(8), 2173-2176 CODEN: BMCLE8; ISSN: 0960-894X, 2006, XP002472293
- D6: WO 03/074530 A (HOFFMANN LA ROCHE [CH]) 12 September 2003 (2003-09-12)
- D7: WO 2006/074985 A (JANSSEN PHARMACEUTICA NV [BE]; FREYNE EDDY JEAN EDGARD [BE]; LACRAMPE) 20 July 2006 (2006-07-20)
- D8: WO 2006/091737 A (KEMIA INC [US]; SEBO LUBOMIR [SK]; KAHL JEFFREY [US]; LUM CHRISTOPHER) 31 August 2006 (2006-08-31)
- D9: WO 2007/058990 A (KEMIA INC [US]; DELAET NANCY [US]; LARSON CHRISTOPHER [US]; PRYOR KENT) 24 May 2007 (2007-05-24)
- D10: WO 2006/076595 A (SIGNAL PHARMACEUTICALS LLC [US]; ALBERS RONALD [US]; AYALA LETICIA [US]) 20 July 2006 (2006-07-20)
- D11: JP 2006 241089 A (ASTELLAS PHARMA INC) 14 September 2006 (2006-09-14)
- D12: WO 2006/045828 A (TIBOTEC PHARM LTD [IE]; ARTS FRANK XAVIER JOZEF HERWIG [BE]; GUILLEMON) 4 May 2006 (2006-05-04)
- D13: WO 2007/030438 A (PHARMACOEPIA DRUG DISCOVERY [US]; COLE ANDREW G [US]; BRESCIA MARC-RAL) 15 March 2007 (2007-03-15)
- D14: MORIARTY ET AL: "The synthesis and SAR of 2-amino-pyrrolo[2,3-d]pyrimidines: A new class of Aurora-A kinase inhibitors" BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, OXFORD, GB, vol. 16, no. 22, 30 October 2006 (2006-10-30), pages 5778-5783, XP005839098 ISSN: 0960-894X
- D15: WO 2007/127382 A (SIGNAL PHARMACEUTICALS LLC [US]; ALBERS RONALD J [US]; AYALA LETICIA J) 8 November 2007 (2007-11-08)
- D16: WO 2007/104053 A (PHARMACOEPIA INC [US]; COLE ANDREW G [US]; BRESCIA MARC-RALEIGH [US];) 13 September 2007 (2007-09-13)

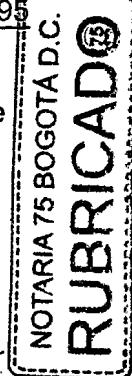
I Opinion on the first invention

I.1 CLAIMS 1-6,8,9,11-15,17-43

I.1.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-4,6,11-13,17-43 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (see the passages cited in the search report) that 1-Isopropyl-3-phenyl-5-phenylamino-1, 3-dihydro-imidazo [4, 5-b] pyridin-2-one, 1-Bicyclo [2. 2. 1] hept-2-yl-3-phenyl-5-phenylamino-1, 3-dihydro-imidazo [4, 5-b]pyridin-2-one and 1-tert-Butyl-5-[4-(2-morpholin-4-yl-ethoxy)-naphthalen-1-ylamino]-3-p-tolyl-1, 3-dihydro- imidazo [4, 5-b] pyridin-2-one are compounds useful to treat the diseases specified in said claims, i.e. treating a disease mediated by cytokines e.g. rheumatoid arthritis, osteoarthritis, Crohn's disease, ulcerative colitis, psoriatic arthritis, traumatic arthritis, rubella arthritis, inflammatory bowel disease, multiple sclerosis, graft versus host disease, systemic lupus erythematosus, irritable bowel syndrome, muscle degeneration, allograft rejections, pancreatitis, insulinitis, acute synovitis, Reiter's syndrome, Behcet's disease, spondylitis, endometriosis, non-articular inflammatory conditions diabetes-related polyneuropathies, trauma, migraine, tension and cluster headache, thrombosis, angiogenesis, coronary heart disease, coronary artery disease, acute coronary syndrome, Takayasu arteritis, cardiac failure (including heart failure, cardiomyopathy, myocarditis, vasculitis etc.

I.1.2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-6,8-15,17-43 is not new in the sense of Article 33(2) PCT. Document D2 discloses (see the passages cited in the search report) the use of compounds of formula (I) for treating kinase related diseases, in particular tumor diseases (leukemias (chronic myeloid leukemia and acute lymphoblastic leukemia), gliomas, sarcomas, prostate tumors, tumors of the colon, breast, and ovary) and non-malignant proliferative disorders such as atherosclerosis, thrombosis, psoriasis, scleroderma, fibrosis, transplant rejection and asthma etc.



I.1.3 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-6,8,9,11-14,17-35,43 is not new in the sense of Article 33(2) PCT.

Document D4 discloses (see the passages cited in the search report) that compounds of formula (I) are useful to treat prostate cancer, insulin signaling and Alzheimer's disease; for the treatment of human disorders, neurodegenerative diseases, ataxia-telangiectasia, arthritis, asthma, inflammatory bowel disease, other inflammatory conditions, psoriasis and cancers e.g. melanoma.

I.1.4 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-5,8,9,11-14,17-33,39,43 is not new in the sense of Article 33(2) PCT.

Document D5 discloses (see the passages cited in the search report) that compounds of formula (I) are inhibitors of focal adhesion kinase and useful for treating e.g. lymphoma.

I.2. Claims 7 and 16 appear to fulfill the criteria of novelty and inventive step because there is no hint in the prior art to synthesise said compounds and to use them for the claimed use.

II Opinion on the second invention

II.1 CLAIMS 1-6,10-15,17-43

II.1.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-6,8-15,17-43 is not new in the sense of Article 33(2) PCT.

Document D2 discloses (see the passages cited in the search report) the use of compounds of formula (I) for treating kinase related diseases, in particular tumor diseases (leukemias (chronic myeloid leukemia and acute lymphoblastic leukemia), gliomas, sarcomas, prostate tumors, tumors of the colon, breast, and ovary) and non-malignant proliferative disorders such as atherosclerosis, thrombosis, psoriasis, scleroderma, fibrosis, transplant rejection and asthma etc.

- II.1.2 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-6,8,9,11-14,17-35,43 is not new in the sense of Article 33(2) PCT.

Document D4 discloses (see the passages cited in the search report) that compounds of formula (I) are useful to treat prostate cancer, insulin signaling and Alzheimer's disease; for the treatment of human disorders, neurodegenerative diseases, ataxia-telangiectasia, arthritis, asthma, inflammatory bowel disease, other inflammatory conditions, psoriasis and cancers e.g. melanoma.

- II.1.3 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-5,10-14,17-43 is not new in the sense of Article 33(2) PCT.

Document D6 discloses (see the passages cited in the search report) that compounds of formula (I) (inv 2) are useful in the prophylaxis of inflammatory, immunological, oncological, bronchopulmonary, and dermatological and cardiovascular disorders, including asthma, diabetic complications, prevention of graft rejection following transplant surgery, inflammation, fever, arthritis, rheumatoid arthritis, spondyloarthropathies etc.

- II.1.4 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1-6,10,11,17-29,31,32,34,35,40-43 is not new in the sense of Article 33(2) PCT.

Document D12 discloses (see the passages cited in the search report) the use of compounds of the formulae of said claims for treating HIV infection (claimed), and conditions associated with HIV and other pathogenic retroviruses (including AIDS, AIDS-related complex, progressive generalized lymphadenopathy, and chronic central nervous system diseases caused by retroviruses such as HIV mediated dementia and multiple sclerosis); and viral infections, thrombocytopenia; Kaposi's sarcoma; and infection of the central nervous system associated with progressive demyelination, progressive dysarthria etc.

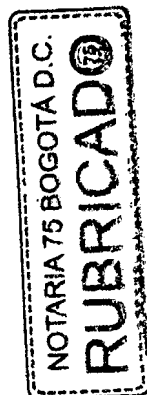
Re Item VI

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2007/069595

The examination has been carried out assuming that the priority of the application is valid. However, attention is drawn to the fact that the documents which have been cited in the search report as "E" or "P" documents may become relevant in the national/regional examination phase.



(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

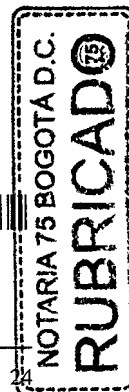


PCT



(43) International Publication Date
6 December 2007 (06.12.2007)

(10) International Publication Number
WO 2007/140222 A3



(51) International Patent Classification:

A61K 31/519 (2006.01)	A61P 17/06 (2006.01)
A61K 31/52 (2006.01)	A61P 17/00 (2006.01)
A61K 31/522 (2006.01)	A61P 19/02 (2006.01)
A61P 1/00 (2006.01)	A61P 25/28 (2006.01)
A61P 3/10 (2006.01)	A61P 35/00 (2006.01)
A61P 9/00 (2006.01)	A61P 35/02 (2006.01)
A61P 11/06 (2006.01)	A61P 37/06 (2006.01)
A61P 15/00 (2006.01)	C07D 487/04 (2006.01)

32, 79540 Lörrach (DE). SUNG, Moo Je [KR/US]; 24
Chester Road, Belmont, MA 02478 (US).

(74) Agent: MCNALLY, Lydia T.; Novartis, Corporate
Intellectual Property, One Health Plaza Bldg. 104, East
Hanover, NJ 07936-1080 (US).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES,
FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN,
IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR,
LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX,
MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(21) International Application Number:

PCT/US2007/069595

(22) International Filing Date: 24 May 2007 (24.05.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/808,605 26 May 2006 (26.05.2006) US

(71) Applicants (*for all designated States except US*): NO-
VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel
(CH). ASTEX THERAPEUTICS LTD [GB/GB]; 436
Cambridge Science Park, Milton Road, Cambridge, CB4
OQA (GB).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): BRAIN, Christo-
pher Thomas [GB/US]; Novartis Institutes for BioMedi-
cal Research Inc., 250 Massachusetts Avenue, Cambridge,
MA 02139 (US). THOMA, Gebhard [DE/DE]; Talweg

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,
PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report
— before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
7 August 2008

(54) Title: PYRROLOPYRIMIDINE COMPOUNDS AND THEIR USES

(57) Abstract: The present application describes organic compounds that are useful for the treatment, prevention and/or ameliora-
tion of diseases, particularly pyrrolopyrimidine compounds and derivatives are described which inhibit protein kinases. The organic
compounds are useful in treating proliferative disease.

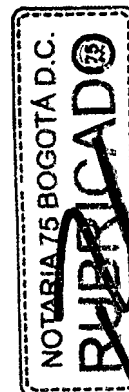
WO 2007/140222 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/069595

A. CLASSIFICATION OF SUBJECT MATTER				
INV. A61K31/519	A61K31/52	A61K31/522	A61P1/00	A61P3/10
A61P9/00	A61P11/06	A61P15/00	A61P17/06	A61P17/00
A61P19/02	A61P25/28	A61P35/00	A61P35/02	A61P37/06
According to International Patent Classification (IPC) or to both national classification and IPC				C07D487/04
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) C07D A61K A61P				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, BEILSTEIN Data, WPI Data, BIOSIS, CHEM ABS Data				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages			Relevant to claim No.
X	WO 2005/023761 A (KEMIA INC [US]; BOMAN ERIK [US]; CEIDE SUSANA C [US]; DAHL RUSSELL [US] 17 March 2005 (2005-03-17) abstract paragraphs [0164] - [0186] page 192; compound 42			1-4, 6, 11-13, 17-43
X	WO 2005/080393 A (IRM LLC [US]; CHOI HA-SOON [US]; WANG ZHICHENG [US]; GRAY NATHANAEAL SC) 1 September 2005 (2005-09-01) the whole document			1-6, 8-15, 17-43
-/-				
☒ Further documents are listed in the continuation of Box C. ☒ See patent family annex.				
* Special categories of cited documents : *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family				
Date of the actual completion of the international search 13 June 2008			Date of mailing of the international search report 23/06/2008	
Name and mailing address of the ISA/ European Patent Office, P.B. 5618 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016			Authorized officer Jakobs, Andreas	

Form PCT/ISA/210 (second sheet) (April 2005)



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/069595

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GAULON C ET AL: "A General and Facile Route to New Trisubstituted Purin-8-ones" SYNTHESIS, GEORG THIEME VERLAG, STUTTGART, DE, vol. 13, 7 July 2005 (2005-07-07), pages 2227-2233, XP002413755 ISSN: 0039-7881 abstract page 2227, column 1, paragraph 1; figure 1; table 1	43
X	WO 2005/107760 A (IRM LLC [US]; HONG JIYONG [US]; GRAY NATHANAE S [US]; SCHULTZ PETER []) 17 November 2005 (2005-11-17) abstract paragraphs [0028] - [0036] compounds 1-217	1-6, 8-14, 17-35, 43
X	CHOI, HA-SOON ET AL: "Design and synthesis of 7H-pyrrolo[2,3-d]pyrimidines as focal adhesion kinase inhibitors. Part 1" BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, 16(8), 2173-2176 CODEN: BMCLE8; ISSN: 0960-894X, 2006, XP002472293 the whole document	1-5, 8, 9, 11-14, 17-33, 39, 43
X	WO 03/074530 A (HOFFMANN LA ROCHE [CH]) 12 September 2003 (2003-09-12) abstract table 1; compounds 32-36, 39 page 38, line 15 - page 40, line 24	1-5, 10-14, 17-43
P, X	WO 2006/074985 A (JANSSEN PHARMACEUTICA NV [BE]; FREYNE EDDY JEAN EDGARD [BE]; LACRAMPE) 20 July 2006 (2006-07-20) see compound 89, page 54 the whole document pages 10, 28, 29	1-35, 38-43
P, X	WO 2006/091737 A (KEMIA INC [US]; SEBO LUBOMIR [SK]; KAHL JEFFREY [US]; LUM CHRISTOPHER) 31 August 2006 (2006-08-31) abstract; examples 15a-15k paragraphs [0059], [0113] example 4; table 7 example 9; table 13 pages 107-111; table 14	1-9, 11-14, 17-35, 38-43

Form PCT/ISA/210 (continuation of second sheet) (April 2005)

NOTARIA 75 BOGOTA D.C.

~~RUBRICADO~~

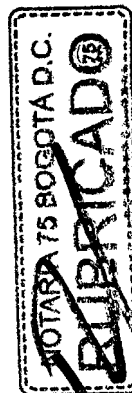
INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/069595

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 2007/058990 A (KEMIA INC [US]; DELAET NANCY [US]; LARSON CHRISTOPHER [US]; PRYOR KENT) 24 May 2007 (2007-05-24) abstract page 8, lines 11-13; claims 1-3	1-6, 17-27, 35, 43
X,P	WO 2006/076595 A (SIGNAL PHARMACEUTICALS LLC [US]; ALBERS RONALD [US]; AYALA LETICIA [US]) 20 July 2006 (2006-07-20) abstract paragraphs [0024] - [0030]; table 1 paragraphs [0200] - [0218]; examples 1-25	1-7, 10-14, 17-43
X,P	JP 2006 241089 A (ASTELLAS PHARMA INC) 14 September 2006 (2006-09-14) abstract; examples 1-499	1-3, 5, 6, 10-15, 17-28, 31-35, 40-43
X	WO 2006/045828 A (TIBOTEC PHARM LTD [IE]; ARTS FRANK XAVIER JOZEF HERWIG [BE]; GUILLEMON) 4 May 2006 (2006-05-04) abstract; table 4 page 40, line 9 - page 41, line 27	1-6, 10, 11, 17-29, 31, 32, 34, 35, 40-43
X,P	WO 2007/030438 A (PHARMACOEPIA DRUG DISCOVERY [US]; COLE ANDREW G [US]; BRESCIA MARC-RAL) 15 March 2007 (2007-03-15) claims 1-22; table 1	1-5, 10-14, 17-28, 31, 34, 40-43
P,X	MORIARTY ET AL: "The synthesis and SAR of 2-amino-pyrrolo[2,3-d]pyrimidines: A new class of Aurora-A kinase inhibitors" BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, OXFORD, GB, vol. 16, no. 22, 30 October 2006 (2006-10-30), pages 5778-5783, XP005839098 ISSN: 0960-894X the whole document	1-7, 10-32, 39-43
E	WO 2007/127382 A (SIGNAL PHARMACEUTICALS LLC [US]; ALBERS RONALD J [US]; AYALA LETICIA [US]) 8 November 2007 (2007-11-08) paragraphs [0023] - [0029]; table 1 paragraphs [0199] - [0227]	1-7, 10-14, 17-43
	-/--	

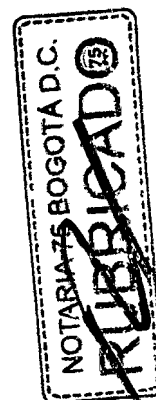


INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/069595

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 2007/104053 A (PHARMACOPEIA INC [US]; COLE ANDREW G [US]; BRESCIA MARC-RALEIGH [US];) 13 September 2007 (2007-09-13) the whole document	1-7, 10-14, 17-35, 38-43



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/069595

NOTARIA 75 BOGOTA D.C.
PUBLICADO

Box No. II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

- ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 1-41 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
- ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
- ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

- ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
- ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
- ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

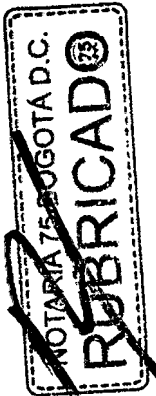
This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-7,11-43 (partially) 8,9

Compounds of formula (I) wherein the bond between X and Y is a single bond and use thereof for regulating, modulating or inhibiting protein kinase activity, i.e. for treating the disorders specified in claims 28-39

2. claims: 1-7,11-43 (partially) 10

Compounds of formula (I) wherein the bond between X and Y is a double bond and use thereof for regulating, modulating or inhibiting protein kinase activity, i.e. for treating the disorders specified in claims 28-39



LOMBIA
DA DE LA CRUZ
JOTA D.C.

LIBRERIA 75-BO
A DEC 10 2007

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/069595

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2005023761 A	17-03-2005	AU 2004270733 A1 BR PI0414313 A CA 2538820 A1 EP 1670787 A2 JP 2007505127 T MX PA06002853 A	17-03-2005 07-11-2006 17-03-2005 21-06-2006 08-03-2007 14-06-2006
WO 2005080393 A	01-09-2005	AU 2005214352 A1 BR PI0507668 A CA 2553785 A1 CN 1918158 A EP 1713806 A1 JP 2007522241 T	01-09-2005 17-07-2007 01-09-2005 21-02-2007 25-10-2006 09-08-2007
WO 2005107760 A	17-11-2005	NONE	
WO 03074530 A	12-09-2003	AU 2003210388 A1 BR 0308232 A CA 2477721 A1 CN 1639168 A EP 1485390 A1 JP 2005526057 T MX PA04008592 A RU 2301233 C2	16-09-2003 28-12-2004 12-09-2003 13-07-2005 15-12-2004 02-09-2005 06-12-2004 20-06-2007
WO 2006074985 A	20-07-2006	AU 2006205851 A1 CA 2594425 A1 EP 1846408 A1 US 2008070914 A1	20-07-2006 20-07-2006 24-10-2007 20-03-2008
WO 2006091737 A	31-08-2006	NONE	
WO 2007058990 A	24-05-2007	NONE	
WO 2006076595 A	20-07-2006	AU 2006204792 A1 CA 2595182 A1 EP 1838710 A1 KR 20070120940 A	20-07-2006 20-07-2006 03-10-2007 26-12-2007
JP 2006241089 A	14-09-2006	NONE	
WO 2006045828 A	04-05-2006	AR 051410 A1 AU 2005298637 A1 CA 2577588 A1 CN 101048410 A KR 20070085286 A US 2008085907 A1	10-01-2007 04-05-2006 04-05-2006 03-10-2007 27-08-2007 10-04-2008
WO 2007030438 A	15-03-2007	NONE	
WO 2007127382 A	08-11-2007	NONE	
WO 2007104053 A	13-09-2007	US 2008032971 A1	07-02-2008

NOTARIA 75 BOGOTA D.C.
RUBRICADO

REPÚBLICA DE COLOMBIA
RAMÓN ALBERTO LOZADA DE LA CRUZ
NOTARIA 75 - BOGOTÁ D.C.

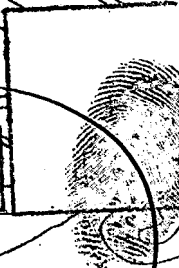
Presentación Personal
Reconocimiento Contenido, Firma y Huella

13 FEB 2013

Doy fe que este documento fue presentado
personalmente por quien se identificó como

con

con 79.579.680 de Bogotá D.C.
quien declaro, que reconoce
contenido, firma y huella



Reconocimiento

REPÚBLICA DE COLOMBIA
RAMÓN ALBERTO LOZADA DE LA CRUZ
NOTARIA 75 - BOGOTÁ D.C.

Y ATESTO

FORGUA
FIELMA