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International Bureau



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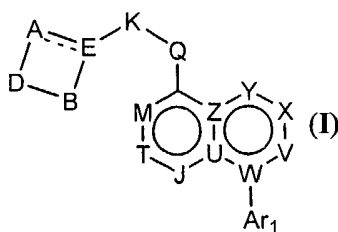
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- (21) International Application Number: PCT/US2004/022417
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60/510,644 10 October 2003 (10.10.2003) US
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- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **JONES, Robert, M.** [GB/US]; 10937 Corte Luz del Sol, San Diego, CA 92130 (US). **SEMPLE, Graeme** [GB/US]; 15920 Camino Codorniz, San Diego, CA 92127 (US). **XIONG, Yifeng** [US/US]; 5036 Pearlman Way, San Diego, CA 92130 (US). **SHIN, Young-Jun** [KR/US]; 11051 Iceskate Place, San Diego, CA 92126 (US). **REN, Albert, S.** [CN/US]; 4266 Corte de Sausilito, Los Angeles, CA 92130 (US). **CALDERON, Imelda** [MX/US]; 10971 Caminito Arcada, San Diego, CA 92131 (US). **FIORAVANTI, Beatriz** [BR/US]; 60 west Stone Loop, N° 327, Tucson, Arizona 85704 (US). **CHOI, Jin, Sun, Karoline** [US/US]; 9926 Scripps Westview Way, N° 251, San Diego, CA 92131 (US). **SAGE, Carlton, R.** [US/US]; 1232 Greenlake Drive, Cardiff-by-the-Sea, CA 92007 (US).
- (74) Agent: **GODDARD, Christine, A.**; Cozen O'Connor, 1900 Market Street, Philadelphia, PA 19103 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, 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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (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, IT, LU, MC, 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:**  
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— 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: 16 June 2005
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 2005/007658 A3

(54) Title: FUSED-ARYL AND HETEROARYL DERIVATIVES AS MODULATORS OF METABOLISM AND THE PROPHYLAXIS AND TREATMENT OF DISORDERS RELATED THERETO



(57) Abstract: The present invention relates to certain fused aryl and heteroaryl derivatives of Formula (I) that are modulators of metabolism. Accordingly, compounds of the present invention are useful in the prophylaxis or treatment of metabolic disorders and complications thereof, such as, diabetes and obesity.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/022417

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C07D487/04 C07D473/00 C07D498/04 C07D471/04 C07D215/22  
 A61K31/519 A61K31/52 A61K31/4375 A61K31/47 A61P3/00  
 A61P3/10

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

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 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, WPI Data, PAJ, BIOSIS, INSPEC, 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	US 6 552 192 B1 (HANUS JAN ET AL) 22 April 2003 (2003-04-22) column 1, line 45 - column 3, line 26 column 19, lines 14,47 column 20, line 7 - line 8 claims 1-30	1-45,53, 56-116
X	EP 1 097 709 A (PFIZER PROD INC) 9 May 2001 (2001-05-09) abstract; claims 1-25 paragraph '0020! - paragraph '0022! paragraph '0025! - paragraph '0077! ----- -/--	1-116

Further documents are listed in the continuation of box C.       Patent family members are listed in 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
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Date of the actual completion of the international search  <b>20 April 2005</b>	Date of mailing of the international search report  <b>09. 05. 2005</b>
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <b>Papathoma, S</b>
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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/022417

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 05, 14 September 2000 (2000-09-14) & JP 2000 038350 A (YOSHITOMI PHARMACEUT IND LTD), 8 February 2000 (2000-02-08) (Pages 3, 5 and 8 of the patent application disclose relevant formulae for the subject matter of claims 1-116) abstract	1,5,6, 8-36, 56-116
X	----- EP 1 040 831 A (PFIZER PROD INC) 4 October 2000 (2000-10-04) claims 1-10	1-47,53, 56-116
X	----- US 4 139 705 A (DUNBAR JOSEPH E ET AL) 13 February 1979 (1979-02-13) claim 1; examples 1,2	1-43, 56-116
X	----- WO 94/13677 A (PFIZER ; CHEN YUHPYNG LIANG (US)) 23 June 1994 (1994-06-23) page 20, line 20 page 21, line 25 page 22, line 23 claims 1-12	1-43, 56-116
X	----- DATABASE CHEMCATS 'Online! 9 May 2003 (2003-05-09), XP002311323 retrieved from CHEMCATS accession no. 2003:2417080 abstract	1-43
X	----- DATABASE CHEMCATS 'Online! 9 May 2003 (2003-05-09), XP002311324 retrieved from CHEMCATS accession no. 2003:2416398 abstract	1-43
X	----- DATABASE CHEMCATS 'Online! 9 May 2003 (2003-05-09), XP002311325 retrieved from CHEMCATS accession no. 2003:2415906 abstract	1-43
X	----- DATABASE CHEMCATS 'Online! 9 May 2003 (2003-05-09), XP002311326 retrieved from CHEMCATS accession no. 2003:2415108 abstract	1-43
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## INTERNATIONAL SEARCH REPORT

 Intl. Patent Application No  
 PCT/US2004/022417

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CHEMCATS 'Online! 25 April 2003 (2003-04-25), XP002311327 retrieved from CHEMCATS accession no. 2003:2246300 abstract	1-43
X	----- DATABASE CHEMCATS 'Online! 25 April 2003 (2003-04-25), XP002311328 retrieved from CHEMCATS accession no. 2003:2246299 abstract	1-43
X	----- US 6 506 762 B1 (HORVATH RAYMOND F ET AL) 14 January 2003 (2003-01-14) abstract; claims 1-26,30-97 examples 3-11,13; tables 2-10,12-14	1-116
X	----- US 4 189 579 A (BEGIN, LOUIS E ET AL) 19 February 1980 (1980-02-19) examples 1,2	1-45, 56-116
X	claims 1,2	1-45, 56-116
X	----- THOMPSON R D ET AL: "N6,9-DISUBSTITUTED ADENINES: POTENT, SELECTIVE ANTAGONISTS AT THE A <sub>1</sub> ADENOSINE RECEPTOR" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 34, no. 9, 1991, pages 2877-2882, XP002048672 ISSN: 0022-2623 page 2878 - page 2879; figure I; example 30; tables I,II	1,5,8, 11, 13-17, 28,29, 31-33, 39,44, 45, 56-116
A	----- PRESS, JEFFERY B. ET AL: "Synthesis and structure-activity relationship of 6-substituted purine derivatives as novel selective positive inotropes" JOURNAL OF MEDICINAL CHEMISTRY, 35(24), 4509-15 CODEN: JMCMAR; ISSN: 0022-2623, 1992, XP002325466 examples 5a,5b,5c page 4512; example 27; tables I,II ----- -/--	1,5-12, 14-19, 28,29, 31-33, 39,44, 45,56

## INTERNATIONAL SEARCH REPORT

 Int'l Application No  
 PCT/US2004/022417

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/032989 A (BOEHRINGER INGELHEIM PHARMACEUTICALS, INC) 24 April 2003 (2003-04-24)  page 37 - page 38; claims 1-17; table II -----	1, 5, 8, 11, 13-17, 28, 29, 31-33, 39, 44, 45, 56-116
P, X	WO 2004/000843 A (ASTRAZENECA AB; BAILEY, ANDREW; PAIRAUDEAU, GARRY; PATEL, ANIL; THOM,) 31 December 2003 (2003-12-31)  page 12; example 3 page 4, line 4; claims 1-3, 6, 7 -----	1, 5, 8, 11, 12, 14-19, 28, 29, 31-33, 44, 45, 56
X	WO 02/098878 A (MEMORY PHARMACEUTICALS CORPORATION; LIU, RUIPING; HESS, HANS-JUERGEN,) 12 December 2002 (2002-12-12)  abstract; claims 1-75; examples 4-9 examples 4f, 4g, 5b, 6a, 6b -----	1, 5, 8, 11, 13-17, 28, 29, 31-33, 39, 44, 45, 56-116
X	US 6 107 301 A (ALDRICH ET AL) 22 August 2000 (2000-08-22)  column 5, line 55 - column 23, line 23; examples 101-104, 154, 191, 201-203, 269 claim 1; tables 9, 9a, 15-18 examples 348, 517, 524, 527, 531, 538, 541, 545, 552, 555, 55 9, 566 examples 569, 574, 584, 592, 626, 637-640, 663, 676, 689, 69 7, 713 examples 721, 804, 860, 1120, 1133-1141 ----- -/--	1, 5, 8-10, 12, 14-17, 28, 29, 31-33, 39, 44-47, 56-116

## INTERNATIONAL SEARCH REPORT

 International Application No  
 PCT/US2004/022417

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BAINBUR, NAND ET AL: "Solution-Phase Synthesis of a Library of 3,5,7-Trisubstituted 3H-1,2,3-triazolo[4,5-d]pyrimidines" JOURNAL OF COMBINATORIAL CHEMISTRY, 5(5), 653-659 CODEN: JCCHFF; ISSN: 1520-4766, 2003, XP002325467 page 654; figures 2,3a examples 12,20,28,36,52,60,68,76 page 658; examples 9d,9l	1,5,8, 11, 13-17, 28,29, 31-33, 46,47, 56-116
X	ESCHER, ANDRE ET AL: "Cyclopentylamine substituted triazolo[4,5-d]pyrimidine: implications for binding to the adenosine receptor" TETRAHEDRON LETTERS, 32(29), 3583-4 CODEN: TELEAY; ISSN: 0040-4039, 1991, XP002325468 the whole document compound 2	1,5,8, 11, 13-16, 28,29, 31-33, 46,47, 56-116
X	CHORVAT R J ET AL: "SYNTHESIS, CORTICOTROPIN-RELEASING FACTOR RECEPTOR BINDING AFFINITY AND PHARMACOKINETIC PROPERTIES OF TRIAZOLO-, IMIDAZO- AND PYRROLOPYRIMIDINES AND -PYRIDINES" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 42, no. 5, 11 March 1999 (1999-03-11), pages 833-848, XP001093941 ISSN: 0022-2623 abstract; examples 4m,4s; table 1 figures 1-3; tables 2,3	1,5,8, 11-16, 28,29, 31-33, 44-47, 56-116
X	BETTI LAURA ET AL: "Novel 3-alkyl-7-(amino-substituted)-1,2,3-triazolo[4,5-d]pyrimidines with high affinity toward A1 adenosine receptors" JOURNAL OF MEDICINAL CHEMISTRY, vol. 41, no. 5, 26 February 1998 (1998-02-26), pages 668-673, XP002325469 ISSN: 0022-2623 abstract; figure 1; examples 4a,5a,6a,7a; table 1 page 671; examples 4a,5a,6a,7a	1,5,8, 11-16, 28,29, 31-33, 46,47, 56-116
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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2004/022417

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/11003 A (DU PONT PHARMACEUTICALS COMPANY) 2 March 2000 (2000-03-02)  abstract; claims 1-5; figure 1; table 1	1,5, 8-11, 13-16, 28,29, 31-33, 48,49, 56-116
A	DESIMONI, GIOVANNI ET AL: "Polynuclear isoxazole types. I. Isoxazolo[4,5-d]pyrimidines" TETRAHEDRON, 23(2), 675-80 CODEN: TETRAB; ISSN: 0040-4020, 1967, XP002325470 page 676; examples IVb,IVg,IVh page 679; examples IVb,IVg,IVh	1,6-19, 28,29, 31-33, 46,47, 56-116
X	WO 98/08847 A (PFIZER INC; CHEN, YUHPYNG, LIANG) 5 March 1998 (1998-03-05) the whole document	1-49, 53-116
A	US 5 952 504 A (YOO ET AL) 14 September 1999 (1999-09-14)  abstract; claims 1-8; examples 1-59; table 1	1,6-19, 28,29, 31-33, 50, 56-116
A	HERSPERGER R ET AL: "Pd-Catalysed Cross-Coupling Reactions for the Synthesis of 6,8-Disubstituted 1,7-Naphtyridines: A Novel Class of Potent and Selective Phosphodiesterase Type 4D Inhibitors" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 43, 2000, pages 675-682, XP002234191 ISSN: 0022-2623 abstract; figure 1; examples 4a,5a,5b,5c,6-13,15; table 1 page 679 - page 680; examples 4a,5a,5b,5c,6-13,15	1,5-29, 31-33, 50, 56-116
X	WO 98/08846 A (PFIZER INC; CHEN, YUHPYNG, LIANG) 5 March 1998 (1998-03-05)  abstract page 6 - page 7 page 11 - page 14 claims 1-41; examples 1-20 claim 40; example 10	1,5-29, 31-33, 50-52, 56-116
X		1,5-29, 31-33, 51, 56-116

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Int'l Application No  
PCT/US2004/022417

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 350 750 B1 (DEN HARTOG JACOBUS A. J ET AL) 26 February 2002 (2002-02-26)	1,5, 8-12, 14-16, 28,29, 31-33, 50-52, 56-116
X	the whole document example II; table 1	1,5, 8-12, 14-16, 28,29, 31-33, 51, 56-116
X	----- WO 98/47874 A (JANSSEN PHARMACEUTICA N.V; NEUROCRINE BIOSCIENCES INC; HUANG, CHARLES;) 29 October 1998 (1998-10-29)	1,5, 8-12, 14-16, 28,29, 31-33, 50-52, 56-116
X	the whole document claims 5,6,8,9,13; tables F1,F2,F3	1,5, 8-12, 14-16, 28,29, 31-33, 51, 56-116
X	----- US 4 343 804 A (MUNSON, JR. ET AL) 10 August 1982 (1982-08-10)	1,5-29, 31-33, 51, 56-116
A	abstract; claims 1-104; table 1 ----- REWCASTLE G W ET AL: "TYROSINE KINASE INHIBITORS. 10. ISOMERIC 4-Ú(3-BROMOPHENYL)AMINO PYRIDOÚD-PYRIMIDINES ARE POTENT ATP BINDING SITE INHIBITORS OF THE TYROSINE KINASE FUNCTION OF THE EPIDERMAL GROWTH FACTOR RECEPTOR" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 39, no. 9, 26 April 1996 (1996-04-26), pages 1823-1835, XP000671261 ISSN: 0022-2623 examples 6a,7a-7i,13f; table 1 ----- -/--	1,5-29, 31-33, 52, 56-116



## INTERNATIONAL SEARCH REPORT

 International Application No  
 PCT/US2004/022417

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	EP 1 475 094 A (USTAV EX BOTAN AKADEMIE VED CE) 10 November 2004 (2004-11-10)  abstract; claims 1-15; tables 1-6 -----	1,5,8, 11, 13-29, 31-33, 53, 56-116
X	HECHT, SIDNEY M. ET AL: "Activation of cytokinins" JOURNAL OF BIOLOGICAL CHEMISTRY , 250(18), 7343-51 CODEN: JBCHA3; ISSN: 0021-9258, 1975, XP002325471  abstract; example 19 -----	1,5,8, 11, 13-17, 28,29, 31-33, 53, 56-116
X	ZHANG, HAN CHENG ET AL: "Preparation of 1-(tri-n-butylstannyl) furanoid glycals and their use in palladium-mediated coupling reactions" TETRAHEDRON LETTERS , 34(10), 1571-4 CODEN: TELEAY; ISSN: 0040-4039, 1993, XP002325472 example 2d -----	1,5,6, 13-17, 28,30, 53,56
X	US 6 060 478 A (GILLIGAN ET AL) 9 May 2000 (2000-05-09)  abstract; claims 1-28; tables 2,4,8 examples 2349,2363,2377,2391,2405,2419,2433,2447 examples 2461,2475,2489,2503,2517,2531,2545 -----	1,5,8, 11-18, 28,29, 31-33, 54-116
X	WO 01/23387 A (NEUROGEN CORPORATION; PFIZER INC; DARROW, JAMES, W; DE LOMBAERT, STEPH) 5 April 2001 (2001-04-05)  abstract; claims 1-52; table 1 page 72; example 522 -----	1,5, 8-19,28, 29, 31-33, 54-116
X	WO 01/23388 A (NEUROGEN CORPORATION; PFIZER INC; DARROW, JAMES, W; DE LOMBAERT, STEPH) 5 April 2001 (2001-04-05)  abstract; claims 1-68; examples 29,552,53,55,71,81; table 1 ----- -/--	1,5, 8-19,28, 29, 31-33, 54-116

## INTERNATIONAL SEARCH REPORT

 International Application No  
 PCT/US2004/022417

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/29109 A (JANSSEN PHARMACEUTICA N.V; NEUROCRINE BIOSCIENCES INC; CHEN, CHEN; WEB) 14 August 1997 (1997-08-14)  abstract; claims 1-13; tables 3-5 -----	1,5, 8-19, 28-36, 54-116
X	JP 61 057587 A (SHIONOGI & CO LTD) 24 March 1986 (1986-03-24)  abstract; tables 6,12 examples 90,92; table 6 -----	1,5-19, 28,29, 31-33, 54-116
X	MUELLER C E ET AL: "7-Deaza-2-phenyladenines: Structure-Activity Relationships of Potent A1 Selective Receptor Antagonists" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 33, no. 10, 1990, pages 2822-2828, XP002229257 ISSN: 0022-2623 abstract; example 16; table I page 2840; example 16 -----	1,5,8, 11, 13-18, 28,29, 31,33, 56-116
X	WO 99/51599 A (NEUROGEN CORPORATION; GE, PING; HORVATH, RAYMOND, F; DE LOMBAERT, STEP) 14 October 1999 (1999-10-14)  abstract; claims 1-9; examples 5,6f-6i -----	1,5,8, 11, 13-18, 28,29, 31,33, 56-116
X	WO 02/19975 A (TAISHO PHARMACEUTICAL CO., LTD; IKEDA, AKIKO; OKUYAMA, SHIGERU; SHIBAS) 14 March 2002 (2002-03-14) abstract pages 6,20,28 -----	1-116

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2004/022417

## Box 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:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  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:
  
3.  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 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

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  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.:
4.  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.
- 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(part), 2-4, 5(part)-36(part), 37-38,  
39(part)-41(part), 42-43,  
56(part)-116(part)

Compounds having a pyrazolo'3,4-d!pyrimidine core structure  
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2. claims: 1(part), 5(part)-36(part), 39(part)-41(part), 44-45,  
56(part)-116(part)

Compounds having a purin core structure  
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3. claims: 1(part), 5(part)-36(part), 39(part)-41(part), 46-47,  
56(part)-116(part)

Compounds having a triazolo'4,5-d!pyrimidine core structure  
---

4. claims: 1(part), 5(part)-36(part), 39(part)-41(part), 48-49,  
56(part)-116(part)

compounds having a isoxazolo'4,5-d!pyrimidine core structure  
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5. claims: 1(part), 5(part)-36(part), 39(part)-41(part), 50,  
56(part)-116(part)

Compounds having a 1,7-naphthyridine core structure  
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6. claims: 1(part), 5(part)-36(part), 39(part)-41(part), 51,  
56(part)-116(part)

Compounds having a quinoline core structure  
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7. claims: 1(part), 5(part)-36(part), 39(part)-41(part), 52,  
56(part)-116(part)

Compounds having a pyrido'3,4-d!pyrimidine core structure  
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8. claims: 1(part), 5(part)-36(part), 39(part)-41(part), 53,  
56(part)-116(part)

Compounds having a pyrazolo'1,5-a!pyrimidine core structure  
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9. claims: 1(part), 5(part)-36(part), 39(part)-41(part), 54-55,  
56(part)-116(part)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Compounds having a pyrazolo[4,3-d]pyrimidine core structure  
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/US2004/022417

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 6552192	B1	22-04-2003	CZ 9900273 A3	16-08-2000
			AT 247115 T	15-08-2003
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