

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
11 October 2007 (11.10.2007)

PCT

(10) International Publication Number
WO 2007/114954 A3

(51) International Patent Classification:
C12Q 1/68 (2006.01)

(21) International Application Number:
PCT/US2007/008673

(22) International Filing Date: 5 April 2007 (05.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/789,742 5 April 2006 (05.04.2006) US

(71) Applicant (for all designated States except US): **CORIXA CORPORATION** [US/US]; 533 Old Corvallis Road, Hamilton, MT 59840-3131 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ALGATE, Paul, A.** [GB/US]; 580 Kalmia Place Northwest, Issaquah, WA 98027 (US). **GORDON, Brian** [US/US]; 4555 165th Avenue, Issaquah, WA 98027 (US). **MANNION, Jane** [US/US]; 417 San Vincente Circle, Newbury Park, CA 91320 (US).

(74) Agents: **URVATER, Julie, A.** et al.; Seed Intellectual Property Law Group PLLC, Suite 6300, 701 Fifth Avenue, Seattle, WA 98104-7092 (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.

(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).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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
- with sequence listing part of description published separately in electronic form and available upon request from the International Bureau

(88) Date of publication of the international search report:
3 July 2008



WO 2007/114954 A3

(54) Title: METHODS, COMPOSITIONS, AND KITS FOR THE DETECTION AND MONITORING OF KIDNEY CANCER

(57) Abstract: Methods and compositions for the diagnosis and monitoring of kidney cancer are disclosed.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/008673

A. CLASSIFICATION OF SUBJECT MATTER
INV. C12Q1/68

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)
C12Q

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, EMBASE, BIOSIS

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2004/032842 A (ANDEL INST VAN [US]; TEH BIN TEAN [US]; TAKAHASHI MASAYUKI [JP] ANDEL) 22 April 2004 (2004-04-22) pages 2-5	1-28
X	WO 03/040340 A (AGENSYS INC [US]; JAKOBOVITS AYA [US]; RAITANO ARTHUR B [US]; FARIS MA) 15 May 2003 (2003-05-15) examples 1,2,4,60; sequences 2,3	1-28
X	WO 2005/036176 A (WYETH CORP [US]; LIU WEI [US]; WHITLEY MARYANN [US]; SLONIM DONNA [US]) 21 April 2005 (2005-04-21) page 1; claim 3; sequence 2	1-28
	----- -/--	

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
21 January 2008

Date of mailing of the international search report
26/05/2008

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
Dolce, Luca

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/008673

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 2005/001092 A (WYETH CORP [US]; BE XIAOBING [US]; WEI LIU [US]; SLONIM DONNA K [US];) 6 January 2005 (2005-01-06) paragraph [0092]	1-28
A	WO 02/074237 A (CORIXA CORP [US]; ALGATE PAUL A [US]; MANNION JANE [US]; GAIGER ALEXAN) 26 September 2002 (2002-09-26) example 2	1-28

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/008673

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:

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 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

1. As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
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.:

1-28 all partially

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:

Invention 1: (claims 1-28 all partially)

Diagnostic compositions, kits and arrays based on oligo/polynucleotide, or amino acid sequences derived from gene K1924 (SEQ ID Nos: 1, 2, 20), antibodies against such marker, antibody arrays and methods to detect kidney cancer in a subject based on monitoring the expression of said gene

Inventions 2-11: (claims 1-28 all partially)

Same as above for the 10 remaining markers of table 2

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2007/008673

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004032842 A	22-04-2004	AU 2003288918 A1	04-05-2004
		CA 2501131 A1	22-04-2004
		EP 1570078 A2	07-09-2005
		JP 2006501849 T	19-01-2006
		US 2006183120 A1	17-08-2006
WO 03040340 A	15-05-2003	AU 2002361610 A2	19-05-2003
		CA 2462653 A1	15-05-2003
		EP 1537140 A2	08-06-2005
		JP 2006509492 T	23-03-2006
		JP 2007254490 A	04-10-2007
		US 2005265924 A1	01-12-2005
		US 2005265921 A1	01-12-2005
		US 2003206905 A1	06-11-2003
		US 2006275211 A1	07-12-2006
WO 2005036176 A	21-04-2005	US 2005282168 A1	22-12-2005
WO 2005001092 A	06-01-2005	US 2005119210 A1	02-06-2005
WO 02074237 A	26-09-2002	NONE	