

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/064718 A3

- (51) International Patent Classification⁷: **A61K 31/517**, C07D 239/88, 239/93, 239/94
- (21) International Application Number:
PCT/IL2004/000068
- (22) International Filing Date: 22 January 2004 (22.01.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/441,779 23 January 2003 (23.01.2003) US
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- (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, 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, 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
- (88) Date of publication of the international search report:
19 May 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.*

(54) Title: IRREVERSIBLE INHIBITORS OF EGF RECEPTOR TYROSINE KINASES AND USES THEREOF

(57) Abstract: Novel epidermal growth factor receptor tyrosine kinase (EGFR-TK) irreversible inhibitors, pharmaceutical compositions including same and their use in the treatment of EGFR-TK related diseases or disorders are disclosed. Novel radiolabeled EGFR-TK irreversible inhibitors as their use as biomarkers for medicinal radioimaging such as Positron Emission Tomography (PET) and Single Photon Emission Computed Tomography (SPECT) and as radiopharmaceuticals for radiotherapy are further disclosed.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL04/00068

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/517; C07D 239/88, 239/93, 239/94.
 US CL : 514/259, 266.1, 266.2, 266.4; 544/278, 284, 293.

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)
 U.S. : 514/259, 266.1, 266.2, 266.4; 544/278, 284, 293.

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 practicable, search terms used)
 CAPLUS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- A	SMAILL, J.B. et. al. Tyrosine Kinase Inhibitors. 17. Irreversible Inhibitors of the Epidermal Growth Factor Receptor: 4-(Phenylamino)quinazoline- and 4-(Phenylamino)pyrido[3,2-d]pyrimidine-6-acrylamides Bearing Additional Solubilizing Functions. J. MED. CHEM. 2000, Vol. 43. No. 7, pp. 1380-1397, especially page 1380, compound #3.	1, 7, 8, 13, 19, 24, and 26-33 ----- 2-6, 9-12, 14-18, 20-23, 25, and 34-126 -----
X --- A	US 6,251,912 B1 (WISSNER et. al.) 26 June 2001 (26.06.2001), especially column 61, Example 75, and column 62, Example 77.	1, 7, 8, 13, 19, 24, and 26-33 ----- 2-6, 9-12, 14-18, 20-23, 25, and 34-126 -----
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See patent family annex.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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"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)	"&"	document member of the same patent family
"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		

Date of the actual completion of the international search
 19 November 2004 (19.11.2004)

Date of mailing of the international search report

08 FEB 2005

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INTERNATIONAL SEARCH REPORT

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- A	WO 99/09016 (WISSNER et. al.) 25 February 1999 (25.02.1999), especially page 73, Example 75, and page 74, Example 77.	1, 7, 8, 13, 19, 24, and 26-33 ----- 2-6, 9-12, 14-18, 20- 23, 25, and 34-126