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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
23 February 2006 (23.02.2006)

PCT

(10) International Publication Number
WO 2006/020263 A3

(51) International Patent Classification:
G01N 33/53 (2006.01) *C07K 1/13* (2006.01)
C07K 16/00 (2006.01) *C07F 9/02* (2006.01)
C07K 1/06 (2006.01)

(21) International Application Number:
PCT/US2005/025483

(22) International Filing Date: 19 July 2005 (19.07.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/592,016 29 July 2004 (29.07.2004) US
11/072,910 4 March 2005 (04.03.2005) 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, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, 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, IS, IT, LT, LU, LV, 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:
— *with international search report*

(88) Date of publication of the international search report:
21 June 2007

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: CYTOXAN ANTIBODIES AND IMMUNOASSAY

(57) Abstract: Novel conjugates of protected aldehyde active metabolites of cyclophosphamide including reagents and immunogens thereof and monoclonal antibodies generated by these immunogens, said reagents and immunogens useful in immunoassays for the monitoring of the active metabolites of cyclophosphamide in patients being treated with cyclophosphamide.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/25483

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8): **G01N 33/53**(2006.01);**C07K 16/00**(2006.01),**1/06**(2006.01),**1/13**(2006.01);**C07F 9/02**(2006.01)

USPC: 435/7.93;530/388.9,389.8,405,406;558/199
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. : 435/7.93; 530/388.9,389.8,405,406; 558/199

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)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Zon et al. NMR spectroscopic studies of intermediary metabolites of cyclophosphamide. A comprehensive kinetic analysis of the interconversion of cis- and trans-4-hydroxyphosphamide with aldophosphamide and the concomitant partitioning of aldophosphamide between irreversible fragmentation and reversible conjugation pathways. Journal of Medicinal Chemistry. 1984, Vol. 27, pp 466-485.	1-49
A	Chen et al. Nonlinear pharmacokinetics of cyclophosphamide and 4-hydroxycyclophosphamide/aldophosphamide in patients with metastatic breast cancer receiving high-dose chemotherapy followed by autologous bone marrow transplantation. Drug Metabolism and Disposition. 1997, Vol. 25, No. 5, pp 544-551.	1-49

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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"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

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Date of the actual completion of the international search	Date of mailing of the international search report
07 February 2007 (07.02.2007)	07 MAR 2007
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Shafiqul Haq Telephone No. 571-272-1600

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

Continuation of B. FIELDS SEARCHED Item 3:
APS, CAPLUS
Search terms: antibody, immunoassay, tracer, competitor, cyclophosphamide, cytoxan, 4-hydroxycyclophosphamide, aldophosphamide, carbodyphosphamide.