

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 October 2006 (12.10.2006)

PCT

(10) International Publication Number
WO 2006/108149 A3

(51) International Patent Classification:
A61K 31/341 (2006.01) **C07D 307/04** (2006.01)

(21) International Application Number:
PCT/US2006/013081

(22) International Filing Date: 6 April 2006 (06.04.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/669,038 6 April 2005 (06.04.2005) US

(71) Applicant (for all designated States except US): **INFLAZYME PHARMACEUTICALS LTD.** [CA/CA];
5600 Parkwood Way, Suite 425, Richmond, British Columbia V6V 2M2 (CA).

(71) Applicant (for OM only): **ROTH, Carol, J.** [US/US]; 701
Fifth Avenue, Suite 6300, Seattle, Washington 98104 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GHOSHEH, Omar** [CA/CA]; 10591 Milford Drive, Richmond, British Columbia V7A 4J9 (CA). **RAYMOND, Jeff** [CA/CA]; 19-2658 Morningstar Crescent, Vancouver, British Columbia V5S 4P4 (CA).

(74) Agents: **ROTH, Carol, J.** et al.; Seed Intellectual Property Law Group, PLLC, 701 Fifth Avenue, Suite 6300, Seattle, Washington 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, 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, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, 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
- 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:
22 November 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: SUBSTITUTED BENZYLAMINES AS CYP2A INHIBITORS AND USES THEREOF TO TREAT NICOTINE DEPENDENCE

(57) Abstract: This invention is directed to substituted benzylamines which are useful as inhibitors of the CYP2A6 enzyme. Pharmaceutical compositions comprising the compounds and methods of using the compounds to treat nicotine dependence are also disclosed.



WO 2006/108149 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/13081

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8): **A61K 31/341**(2006.01);**C07D 307/04**(2006.01)

USPC: 549/200,429;514/449,461

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. : 549/200,429;514/449,461

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)

EAST, STN CAS ONLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,677,378 B2 (HOWARD, Jr et al) 13 January 2004 (13.01.2004).	1-36

☐ 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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"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

16 August 2007 (16.08.2007)

Date of mailing of the international search report

20 SEP 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

Golam M. M. Shameem, Ph.D.

Telephone No. (571) 272-1600