

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 February 2002 (14.02.2002)

PCT

(10) International Publication Number
WO 02/012249 A3

(51) International Patent Classification⁷: C07D 495/04,
A61K 31/407, A61P 29/00 // (C07D 495/04, 333:00,
209:00)

(74) Agents: GINAH, Francis, O. et al.; Eli Lilly and Company, Lilly Corporate Center, DC 1104, Indianapolis, IN 46285 (US).

(21) International Application Number: PCT/US01/21106

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(22) International Filing Date: 20 July 2001 (20.07.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/223,398 4 August 2000 (04.08.2000) US

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): ELI LILLY AND COMPANY [US/US]; Lilly Corporate Center, DC 1104, Indianapolis, IN 46285 (US).

(72) Inventors; and

Published:

(75) Inventors/Applicants (*for US only*): BEIGHT, Douglas, Wade [US/US]; 3468 South 600 West, Frankfort, IN 46041 (US). MORIN, John, Michael, Junior [US/US]; 9 Roselawn Avenue, Brownsburg, IN 46112 (US). SAWYER, Jason, Scott [US/US]; 5718 North Winthrop Avenue, Indianapolis, IN 46220 (US). SMITH, Edward, C., R. [US/US]; 9969 Parkway Drive, Fishers, IN 46038 (US).

— with international search report

(88) Date of publication of the international search report:
18 July 2002

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 02/012249 A3

(54) Title: SUBSTITUTED PYRROLE COMPOUNDS AND THEIR USE AS SPLA2 INHIBITORS

(57) Abstract: A class of novel substituted pyrrole is disclosed together with the use of such compounds for inhibiting sPLA₂ mediated release of fatty acids for treatment of Inflammatory Diseases such as septic shock.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/21106

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D495/04 A61K31/407 A61P29/00 //(C07D495/04,333:00,
209:00)

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

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, CHEM ABS Data, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 675 110 A (ELI LILLY CO) 4 October 1995 (1995-10-04) claims	1-27
Y	WO 99 51605 A (FUJI MASAHIRO; SHIONOGI & CO (JP); OHTANI MITSUAKI (JP); OKADA TET) 14 October 1999 (1999-10-14) claims 1-12,15-21	1-27
Y	WO 00 00201 A (MARTINELLI MICHAEL JOHN; WILSON THOMAS MICHAEL (US); ELI LILLY AND CO) 6 January 2000 (2000-01-06) claims	1-27
	--- -/--	

☒ 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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

26 March 2002

Date of mailing of the international search report

05/04/2002

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

Hass, C

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/21106

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 99 59999 A (ADACHI MAKOTO; FUJI MASAHIRO (JP); SHIONOGI & CO (JP); FUKUI YOSHI) 25 November 1999 (1999-11-25) abstract; claims 1,2 pages 32,37,38,47,54,75-80 ---	1-27
Y	WO 99 09978 A (ELI LILLY AND CO; MACIAS WILLIAM LOUIS (US)) 4 March 1999 (1999-03-04) abstract; claims 1-17,20-22,26-28,36,37,39 ---	1-27
Y	WO 99 16453 A (ELI LILLY AND CO; MACIAS WILLIAM LOUIS (US)) 8 April 1999 (1999-04-08) abstract; claims 1-15,18-20,24-26,34,35,37 ---	1-27
Y	WO 98 25609 A (BACH NICHOLAS J; DRAHEIM SUSAN E (US); ELI LILLY AND CO (US); DILLARD) 18 June 1998 (1998-06-18) claims ---	1-27
Y	EP 0 114 014 A (ADIR) 25 July 1984 (1984-07-25) page 6, line 3 - line 6 page 7, line 14 -page 9, line 8 claims ---	1,22,24, 25
Y	FR 2 565 981 A (ADIR) 20 December 1985 (1985-12-20) page 6, line 11 - line 14 page 6, line 29 -page 8, line 26 claims 1-7,9,10 ---	1,22,24, 25
Y	FR 2 564 467 A (ADIR) 22 November 1985 (1985-11-22) page 8, line 21 - line 24 page 9, line 5 -page 10, line 34 claims 1-4,7,8 ---	1,22,24, 25
Y	WO 99 40914 A (FAULL ALAN WELLINGTON; ZENECA LTD (GB); BARKER ANDREW JOHN (GB); K) 19 August 1999 (1999-08-19) page 1, line 3 - line 9 pages 11-13, table I, compounds no. 1, 2, 15, 16, 23, 48-51 claims 1,2 -----	1,22,24, 25

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/21106

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0675110	A	04-10-1995	AU 688458 B2	12-03-1998
			AU 1621795 A	12-10-1995
			BR 9501404 A	05-03-1996
			CA 2146097 A1	02-10-1995
			CN 1114310 A , B	03-01-1996
			CZ 9500822 A3	13-12-1995
			EP 1081135 A2	07-03-2001
			EP 0675110 A1	04-10-1995
			FI 951553 A	02-10-1995
			HU 72048 A2	28-03-1996
			IL 113210 A	28-01-2001
			JP 3109974 B2	20-11-2000
			JP 7285933 A	31-10-1995
			NO 951252 A	02-10-1995
			NZ 270848 A	26-05-1997
			PL 307951 A1	02-10-1995
			RU 2128169 C1	27-03-1999
			TW 383302 B	01-03-2000
			US 6175021 B1	16-01-2001
			US 5654326 A	05-08-1997
			US 5733923 A	31-03-1998
			US 5919810 A	06-07-1999
			US 5919943 A	06-07-1999
			ZA 9502693 A	30-09-1996
WO 9951605	A	14-10-1999	AU 3054399 A	25-10-1999
			BR 9909345 A	12-12-2000
			CA 2326522 A1	14-10-1999
			CN 1303384 T	11-07-2001
			EP 1066290 A1	10-01-2001
			WO 9951605 A1	14-10-1999
			NO 20004881 A	28-11-2000
WO 0000201	A	06-01-2000	AU 4710699 A	17-01-2000
			EP 1091738 A1	18-04-2001
			WO 0000201 A1	06-01-2000
WO 9959999	A	25-11-1999	AU 3732799 A	06-12-1999
			BR 9911048 A	06-02-2001
			CN 1302300 T	04-07-2001
			EP 1085021 A1	21-03-2001
			WO 9959999 A1	25-11-1999
			NO 20005841 A	22-01-2001
WO 9909978	A	04-03-1999	AU 9123198 A	16-03-1999
			CA 2301586 A1	04-03-1999
			EP 1011670 A1	28-06-2000
			JP 2001513555 T	04-09-2001
			WO 9909978 A1	04-03-1999
			ZA 9807867 A	28-02-2000
WO 9916453	A	08-04-1999	AU 9664198 A	23-04-1999
			CA 2304482 A1	08-04-1999
			EP 1007056 A1	14-06-2000
			JP 2001517707 T	09-10-2001
			WO 9916453 A1	08-04-1999
WO 9825609	A	18-06-1998	AU 5598398 A	03-07-1998

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JS 01/21106

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9825609	A		BR 9714002 A EP 0983064 A1 HU 0000167 A2 JP 2001505915 T WO 9825609 A1 US 5919774 A	16-05-2000 08-03-2000 28-09-2000 08-05-2001 18-06-1998 06-07-1999
EP 0114014	A	25-07-1984	FR 2537974 A1 AT 27277 T AU 2245883 A CA 1212380 A1 DD 259193 A5 DE 3371632 D1 DK 577483 A EP 0114014 A2 ES 528088 D0 ES 8501766 A1 GR 79477 A1 IL 70457 A JP 59118788 A NO 834637 A OA 7612 A PH 19425 A PT 77826 A , B US 4608384 A ZA 8309341 A	22-06-1984 15-06-1987 21-06-1984 07-10-1986 17-08-1988 25-06-1987 17-06-1984 25-07-1984 16-12-1984 01-03-1985 30-10-1984 28-02-1986 09-07-1984 18-06-1984 31-03-1985 15-04-1986 01-01-1984 26-08-1986 25-07-1984
FR 2565981	A	20-12-1985	FR 2565981 A1	20-12-1985
FR 2564467	A	22-11-1985	FR 2564467 A1	22-11-1985
WO 9940914	A	19-08-1999	AU 2432999 A BR 9907936 A CA 2319082 A1 CN 1291094 T EP 1056451 A1 WO 9940914 A1 JP 2002502874 T NO 20004091 A ZA 9900940 A	30-08-1999 24-10-2000 19-08-1999 11-04-2001 06-12-2000 19-08-1999 29-01-2002 16-10-2000 17-08-1999