

(19) World Intellectual Property Organization  
International Bureau



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

PCT

(10) International Publication Number  
**WO 2006/105838 A3**

(51) International Patent Classification:

A61K 31/585 (2006.01) A61K 31/519 (2006.01)  
A61K 36/00 (2006.01) A61P 9/12 (2006.01)  
A61K 31/4415 (2006.01) A23L 1/30 (2006.01)  
A61K 31/714 (2006.01) A23L 1/302 (2006.01)

(21) International Application Number:

PCT/EP2006/002097

(22) International Filing Date: 7 March 2006 (07.03.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

05075798.8 7 April 2005 (07.04.2005) EP

(71) Applicant (for AL, AM, AT, AZ, BA, BE, BF, BG, BJ, BR, BY, CF, CG, CH, CI, CM, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FR, GA, GE, GN, GQ, GR, GW, HR, HU, ID, IS, IT, JP, KG, KM, KP, KR, KZ, LR, LT, LU, LV, MA, MC, MD, MG, MK, ML, MR, MX, MZ, NE, NI, NL, NO, PH, PL, PT, RO, RU, SE, SI, SK, SM, SN, SY, TD, TG, TJ, TM, TN, TR, UA, UZ, VN, YU only): UNILEVER N.V. [NL/NL]; Weena 455, NL-3013 AL Rotterdam (NL).

(71) Applicant (for AE, AG, AU, BB, BW, BZ, CA, CY, EG, GB, GD, GH, GM, IE, IL, KE, KN, LC, LK, LS, LY, MN, MW, NA, NG, NZ, OM, PG, SC, SD, SG, SL, SZ, TT, TZ, UG, VC, ZA, ZM, ZW only): UNILEVER PLC [GB/GB]; UNILEVER HOUSE, Blackfriars, London Greater London EC4P 4BQ (GB).

(71) Applicant (for IN only): HINDUSTAN LEVER LIMITED [IN/IN]; HINDUSTAN LEVER HOUSE, 165/166

Backbay Reclamation, Maharashtra, Mumbai 400 020 (IN).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BREE, Angelika, de [NL/NL]; UNILEVER R & D VLAARDINGEN, Olivier Van Noortlaan 120, NL-3133 AT Vlaardingen (NL). PUT, Nathalie Marie Jeanne, van der [NL/NL]; UNILEVER R & D VLAARDINGEN, Olivier Van Noortlaan 120, NL-3133 AT Vlaardingen (NL).

(74) Agent: JOPPE, Hermina Laura Petronella; UNILEVER PATENT GROUP, Olivier Van Noortlaan 120, NL-3133 AT Vlaardingen (NL).

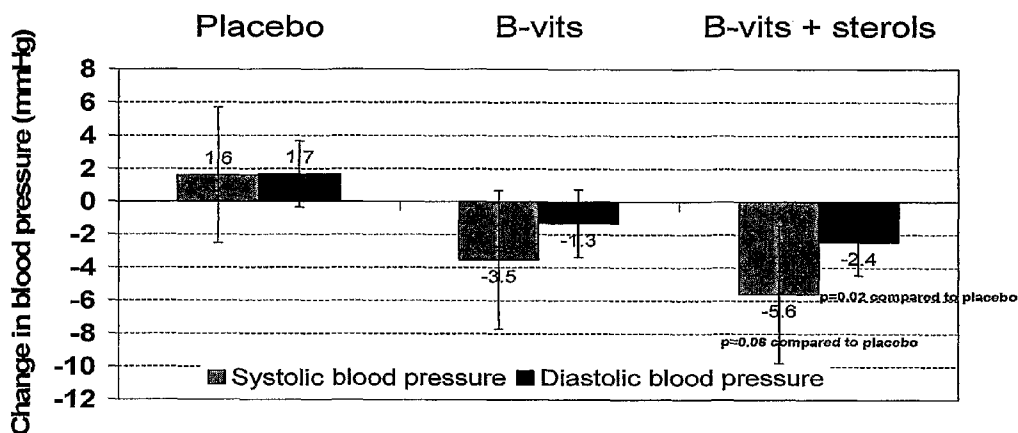
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, 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).

[Continued on next page]

(54) Title: USE OF A COMBINATION OF VITAMINS B AND PHYTOSTEROLS FOR LOWERING BLOOD PRESSURE

Absolute change in blood pressure at week 12



(57) Abstract: Use of a combination of at least one B vitamin and at least one phytosterol or analogue or derivative thereof, for lowering blood pressure in a mammal.

WO 2006/105838 A3



**Published:**

— with international search report

**(88) Date of publication of the international search report:**

15 February 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.*

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/EP2006/002097

**A. CLASSIFICATION OF SUBJECT MATTER**

INV. A61K31/575 A61K36/00 A61K31/4415 A61K31/525 A61K31/714  
A61K31/519 A61P9/12 A23L1/30 A23L1/302

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)  
A61K A61P A23L

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, PAJ, CHEM ABS Data, BIOSIS, EMBASE

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2003/133965 A1 (BRUNO ROBERTO LUIS ET AL) 17 July 2003 (2003-07-17) paragraphs [0001], [0124], [0129]; example 1	1,2,4-6,8,9
Y	WO 00/57863 A (MEDICURE, INC; UNIVERSITY OF MANITOBA) 5 October 2000 (2000-10-05) abstract	1,4
Y	DATABASE WPI Section Ch, Week 200412 Derwent Publications Ltd., London, GB; Class B01, AN 2002-747914 XP002351813 & KR 396 211 B (EUGENE SCI INC) 17 September 2003 (2003-09-17) abstract	1,2
	----- -/--	

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

4 October 2006

Date of mailing of the international search report

03/11/2006

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

ANSALDO, M

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2006/002097

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 136 349 A (KARPPANEN ET AL) 24 October 2000 (2000-10-24) claim 1	1,2,8,9
Y	----- BAILEY AMELIA PURSER ET AL: "High cholesterol diet induces hypertension, renal damage, and atherosclerosis in LDLR -/- mice" FASEB JOURNAL, vol. 19, no. 5, Suppl. S, Part 2, March 2005 (2005-03), page A1235, XP009073212 & EXPERIMENTAL BIOLOGY 2005 MEETING/35TH INTERNATIONAL CONGRESS OF PHYSIOLOGICAL SCIENCES; SAN DIEGO, CA, USA; MARCH 31 -APRIL 06, 2005 ISSN: 0892-6638 abstract	1-9
Y	----- BORGHI CLAUDIO ET AL: "Hypercholesterolemia and progression of high-normal blood pressure to hypertension." May 2003 (2003-05), AMERICAN JOURNAL OF HYPERTENSION, VOL. 16, NR. 5 PART 2, PAGE(S) 207A , EIGHTEENTH ANNUAL SCIENTIFIC MEETING OF THE AMERICAN SOCIETY OF HYPERTENSION; NEW YORK, NY, USA; MAY 14-17, 2003 , XP009073211 ISSN: 0895-7061 abstract           -----	1-9

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2006/002097

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003133965 A1	17-07-2003	US 2006039932 A1	23-02-2006
WO 0057863 A	05-10-2000	AT 259643 T	15-03-2004
		AU 779238 B2	13-01-2005
		AU 3314700 A	16-10-2000
		BR 0009292 A	26-12-2001
		CA 2368775 A1	05-10-2000
		DE 60008352 D1	25-03-2004
		DE 60008352 T2	23-12-2004
		DK 1162980 T3	14-06-2004
		EP 1162980 A2	19-12-2001
		ES 2215618 T3	16-10-2004
		JP 2002540144 T	26-11-2002
		NZ 514767 A	27-02-2004
		PT 1162980 T	30-06-2004
KR 396211 B		NONE	
US 6136349 A	24-10-2000	AT 237956 T	15-05-2003
		AU 735035 B2	28-06-2001
		AU 5399798 A	31-07-1998
		AU 5399898 A	31-07-1998
		BR 9714117 A	21-03-2000
		CA 2276011 A1	09-07-1998
		CN 1241912 A	19-01-2000
		DE 69721308 D1	28-05-2003
		DE 69721308 T2	29-01-2004
		DK 948265 T3	02-06-2003
		EE 9900266 A	15-02-2000
		EP 0948265 A1	13-10-1999
		ES 2198600 T3	01-02-2004
		FI 965251 A	01-07-1998
		WO 9828990 A1	09-07-1998
		WO 9828989 A1	09-07-1998
		HK 1024389 A1	07-02-2003
		HU 0001086 A2	28-08-2000
		ID 22541 A	04-11-1999
		IL 130710 A	10-03-2002
		IS 5092 A	25-06-1999
		JP 2001509013 T	10-07-2001
		NO 993221 A	29-06-1999
		NZ 335965 A	22-12-2000
		PL 334094 A1	31-01-2000
		PT 948265 T	29-08-2003
		RU 2197152 C2	27-01-2003
		TR 9901510 T2	21-09-1999
		UA 62951 C2	15-08-2000
		ZA 9711420 A	08-10-1998
		ZA 9711421 A	08-07-1998