

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 July 2001 (26.07.2001)

PCT

(10) International Publication Number
WO 01/52825 A3

(51) International Patent Classification⁷: A61K 45/06,
A61P 3/10, A61K 38/55, 31/70, 31/425, 31/40, 31/155 //
(A61K 31/70, 31:40) (A61K 31/425, 31:40) (A61K 31/40,
31:198) (A61K 31/40, 31:155)

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(21) International Application Number: PCT/EP01/00590

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(22) International Filing Date: 19 January 2001 (19.01.2001)

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, 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.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/489,234 21 January 2000 (21.01.2000) US
09/619,262 19 July 2000 (19.07.2000) 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, GW, ML, MR, NE, SN, TD, TG).

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Published:
— with international search report

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(88) Date of publication of the international search report:
28 March 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.

(54) Title: COMBINATIONS COMPRISING DIPEPTIDYLPEPTIDASE-IV INHIBITORS AND ANTIDIABETIC AGENTS

(57) Abstract: The invention relates to a combination which comprises a DPP-IV inhibitor and at least one further antidiabetic compound, preferably selected from the group consisting of insulin signalling pathway modulators, like inhibitors of protein tyrosine phosphatases (PTPases), non-small molecule mimetic compounds and inhibitors of glutamine-fructose-6-phosphate amidotransferase (GFAT), compounds influencing a dysregulated hepatic glucose production, like inhibitors of glucose-6-phosphatase (G6Pase), inhibitors of fructose-1,6-bisphosphatase (F-1,6-BPase), inhibitors of glycogen phosphorylase (GP), glucagon receptor antagonists and inhibitors of phosphoenolpyruvate carboxykinase (PEPCK), pyruvate dehydrogenase kinase (PDHK) inhibitors, insulin sensitivity enhancers, insulin secretion enhancers, α -glucosidase inhibitors, inhibitors of gastric emptying, insulin, and α_2 -adrenergic antagonists, for simultaneous, separate or sequential use in the prevention, delay of progression or treatment of conditions mediated by dipeptidylpeptidase - IV (DPP-IV), in particular diabetes, more especially type 2 diabetes mellitus, conditions of impaired glucose tolerance (IGT), conditions of impaired fasting plasma glucose, metabolic acidosis, ketosis, arthritis, obesity and osteoporosis; and the use of such combination for the cosmetic treatment of a mammal in order to effect a cosmetically beneficial loss of body weight.

WO 01/52825 A3

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 01/00590

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 A61K45/06 A61P3/10 A61K38/55 A61K31/70 A61K31/425
 A61K31/40 A61K31/155 //(A61K31/70,31:40),(A61K31/425,31:40),
 (A61K31/40,31:198),(A61K31/40,31:155)

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 A61K A61P

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)

BIOSIS, WPI Data, EPO-Internal, EMBASE, CHEM ABS Data, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 38501 A (DRUCKER DANIEL J ;PLAUT ANDREW G (US); BACHOVCHIN WILLIAM W (US);) 5 August 1999 (1999-08-05)	1-4,8, 11-16
Y	page 45, line 22 -page 46, line 31 ---	7,9,10
X	WO 99 61431 A (GLUND KONRAD ;KRUBER SUSANNE (DE); DEMUTH HANS ULRICH (DE); PROBIO) 2 December 1999 (1999-12-02) page 8, paragraph 3; claim 6 page 11, paragraph 2 page 14, paragraph 2 --- -/--	1-4, 11-15

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
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- *&* document member of the same patent family

Date of the actual completion of the international search 29 November 2001	Date of mailing of the international search report 07/12/2001
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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 Laffargue-Haak, T
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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 01/00590

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PAULY R P ET AL: "IMPROVED GLUCOSE TOLERANCE IN RATS TREATED WITH THE DIPEPTIDYL PEPTIDASE IV (CD26) INHIBITOR ILE-THIAZOLIDIDE" METABOLISM, CLINICAL AND EXPERIMENTAL, W.B. SAUNDERS CO., PHILADELPHIA, PA, US, vol. 48, no. 3, 1999, pages 385-389, XP000874051 ISSN: 0026-0495 cited in the application abstract page 386, column 1, paragraph 2 page 386, column 2, last paragraph ---	1-4, 11-15
X	DEACON C F ET AL: "DIPEPTIDYL PEPTIDASE IV INHIBITION POTENTIATES THE INSULINOTROPIC EFFECT OF GLUCAGON-LIKE PEPTIDE 1 IN THE ANESTHETIZED PIG" DIABETES, NEW YORK, NY, US, vol. 47, no. 5, May 1998 (1998-05), pages 764-769, XP000853618 ISSN: 0012-1797 page 765, column 1, line 3 - line 4; figures 2,3 ---	1-4, 11-15
Y	DUNNING B E: "NATEGLINIDE: A GLUCOSE-SENSITIVE INSULINOTROPIC AGENT THAT IS CHEMICALLY AND PHARMACOLOGICALLY DISTINCT FROM THE SULFONYLUREAS" CURRENT OPINION IN ENDOCRINOLOGY AND DIABETES, PHILADELPHIA, PA, US, vol. 6, no. SUPPL 1, August 1999 (1999-08), pages S29-S31, XP000997507 ISSN: 1068-3097 * Fig. 2 : replaglinide, nateglinide * ---	7,9,10
Y	WO 98 19998 A (CIBA GEIGY AG ;VILLHAUER EDWIN BERNARD (US)) 14 May 1998 (1998-05-14) cited in the application example 3 ---	7,9,10
Y,P	WO 00 34241 A (NOVARTIS ERFIND VERWALT GMBH ;NOVARTIS AG (CH); VILLHAUER EDWIN BE) 15 June 2000 (2000-06-15) cited in the application example 1 ---	7,9,10
A	WO 95 15309 A (FERRING BV ;JENKINS PAUL D (GB); JONES D MICHAEL (GB); SZELKE MICH) 8 June 1995 (1995-06-08) cited in the application ---	
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INTERNATIONAL SEARCH REPORT

In ternational Application No
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 196 16 486 A (KNOELL HANS FORSCHUNG EV) 30 October 1997 (1997-10-30) cited in the application ---	
T	NOVARTIS A G: "NOVEL N-SUBSTITUTED-2-CYANOPYRROLIDINES AS POTENT INHIBITORS OF DIPEPTIDYL PEPTIDASE IV IN THE TREATMENT OF NON-INSULIN-DEPENDENT DIABETES MELLITUS" EXPERT OPINION ON THERAPEUTIC PATENTS, ASHLEY PUBLICATIONS, GB, vol. 10, no. 12, December 2000 (2000-12), pages 1937-1942, XP001019155 ISSN: 1354-3776 * compound (4) : NVP-DPP728 ; compound (10) : LAF237 * -----	9,10

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-10, 13-16 (in part)

Present claims 1-10, 13-16 relate to an extremely large number of possible compositions, defined as c. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of these. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely the dipeptidylpeptidase inhibitors disclosed in the references cited on p. 9, 2, claim 10 and the examples and the antidiabetic agents disclosed in Table 8, claim 10 and the examples, with due consideration given the invention as a whole.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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