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ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: AMINES AND AMIDES FOR THE TREATMENT OF DISEASES

(57) Abstract: Compositions and methods are disclosed for inhibiting semicarbazide-sensitive amine oxidase (SSAO), also known as vascular adhesion protein-1 (VAP-1). The compounds disclosed are amine-containing and amide-containing compounds. The compounds and compositions are useful for treatment of diseases, including inflammation, inflammatory diseases and autoimmune disorders.



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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2005/005901

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>						
A61K31/135	A61K31/437	A61K31/137	A61K31/165	A61K31/40		
A61P29/00	A61P19/02	A61P37/00	A61P25/00	A61P1/00		
A61P1/16	A61P25/28	A61P3/00	A61P11/00			
According to International Patent Classification (IPC) or to both national classification and IPC						
<b>B. FIELDS SEARCHED</b>						
Minimum documentation searched (classification system followed by classification symbols) 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) EPO-Internal, EMBASE, BIOSIS, CHEM ABS Data, BEILSTEIN Data, WPI Data						
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>						
Category °	Citation of document, with indication, where appropriate, of the relevant passages			Relevant to claim No.		
X	<p>TODO Y ET AL: "Pyridonecarboxylic acids as antibacterial agents. VII. Synthesis and structure-activity relationship of amino- and hydroxyl-substituted 7-cycloalkyl and 7-vinyl derivatives of 1-cyclopropyl-6-fluoro-4-quinolone-3-carboxylic acid." CHEMICAL &amp; PHARMACEUTICAL BULLETIN. OCT 1994, vol. 42, no. 10, October 1994 (1994-10), pages 2055-2062, XP008050555 ISSN: 0009-2363 abstract Chart 2; tables 2,3</p> <p style="text-align: center;">----- -/--</p>			1,4,5		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C. <span style="margin-left: 200px;"><input checked="" type="checkbox"/> Patent family members are listed in annex.</span>						
° Special categories of cited documents : <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p> </td> <td style="width: 50%; border: none; vertical-align: top;"> <p>"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</p> <p>"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</p> <p>"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.</p> <p>"&amp;" document member of the same patent family</p> </td> </tr> </table>					<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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.</p> <p>"&amp;" document member of the same patent family</p>
<p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"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)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"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</p> <p>"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</p> <p>"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.</p> <p>"&amp;" document member of the same patent family</p>					
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8 August 2005			28. 11. 2005			
Name and mailing address of the ISA			Authorized officer			
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			A. Jakobs			

## INTERNATIONAL SEARCH REPORT

 Intel ... I Application No  
 PCT/US2005/005901

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MCDONALD I A ET AL: "Enzyme-activated irreversible inhibitors of monoamine oxidase: phenylallylamine structure-activity relationships" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 28, no. 2, 1985, pages 186-193, XP002302791 ISSN: 0022-2623 the whole document	1,4
X	PALFREYMAN M G ET AL: "Haloallylamine inhibitors of MAO and SSAO and their therapeutic potential." JOURNAL OF NEURAL TRANSMISSION. SUPPLEMENTUM. 1994, vol. 41, 1994, pages 407-414, XP008050534 ISSN: 0303-6995 abstract	1,4
X	MÜLLER S ET AL: "Effect of haloallylamines on polyamine oxidase activity and spermine levels in Ascaris suum." PARASITOLOGY RESEARCH. 1996, vol. 82, no. 6, 1996, pages 571-573, XP002339515 ISSN: 0932-0113 abstract	1,4,5
X	CHAABOUNI, REFAAT ET AL: "Hydroboration of vinylic aziridines. Stereospecific syntheses of primary allylic amines" TETRAHEDRON LETTERS, (10), 757-8 CODEN: TELEAY; ISSN: 0040-4039, 1976, XP008050578 the whole document	1
X	PERERA, ROHAN P. ET AL: "Characterization of a Series of 3-Amino-2-phenylpropene Derivatives as Novel Bovine Chromaffin Vesicular Monoamine Transporter Inhibitors" JOURNAL OF MEDICINAL CHEMISTRY, 46(13), 2599-2605 CODEN: JMCMAR; ISSN: 0022-2623, 2003, XP008050580 the whole document	1,4

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## INTERNATIONAL SEARCH REPORT

Interr

I Application No

PCT/US2005/005901

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>HUEBERT N D ET AL: "KINETICS AND METABOLISM OF P-TYRAMINE DURING MONOAMINE OXIDASE INHIBITION BY MOFEGILINE" CLINICAL PHARMACOLOGY &amp; THERAPEUTICS, MOSBY-YEAR BOOK, ST LOUIS, MO, US, vol. 56, no. 5, November 1994 (1994-11), pages 537-542, XP008048847 ISSN: 0009-9236 the whole document</p>	1,4,5
X	<p>----- ZAUGG H E ET AL: "New antihypertensive cannabinoids." JOURNAL OF MEDICINAL CHEMISTRY. FEB 1983, vol. 26, no. 2, February 1983 (1983-02), pages 214-217, XP002339516 ISSN: 0022-2623 compound 13</p>	1
P,X	<p>----- WO 2004/092164 A (AMGEN, INC; ARRAY BIOPHARMA, INC; GRONEBERG, ROBERT, D; ZHAN, JAMES; A) 28 October 2004 (2004-10-28) abstract page 53, line 26 - page 56, line 20; example 356</p>	1,4,5
P,X	<p>----- WO 2004/113335 A (CHIRON CORPORATION; WANG, WEIBO; CONSTANTINE, RYAN, N; LAGNITON, LIANA) 29 December 2004 (2004-12-29) abstract; example 3; compounds 37,38</p>	1,4
A	<p>----- DEJESUS, ONOFRE T. ET AL: "Evaluation of fluorinated m-tyrosine analogs as PET imaging agents of dopamine nerve terminals: comparison with 6-fluorodopa" JOURNAL OF NUCLEAR MEDICINE , 38(4), 630-636 CODEN: JNMEAQ; ISSN: 0161-5505, 1997, XP008050797 the whole document</p>	1-5

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2005/005901

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 4,5 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1 -5

A composition comprising a compound of formula Ia-Id and use thereof for treating a disease.

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2. claims: 6-8

A composition comprising a compound of formula II and use thereof for treating a disease.

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3. claims: 9-11

A composition comprising a compound of formula III and use thereof for treating a disease.

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4. claims: 12-14

A composition comprising a compound of formula IV and use thereof for treating a disease.

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5. claims: 15-17

A composition comprising a compound of formula V and use thereof for treating a disease.

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6. claims: 18-20

A composition comprising a compound of formula VI and use thereof for treating a disease.

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7. claims: 21-24

A composition comprising a compound of formula VII and use thereof for treating a disease.

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8. claims: 25-28

A composition comprising a compound of formula VIII and use thereof for treating a disease.

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9. claims: 29-41

A composition comprising a compound of formula IX and use thereof for treating a disease.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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10. claims: 42-49

A composition comprising a compound of formula X and use thereof for treating a disease.

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US2005/005901

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004092164	A	28-10-2004	NONE
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WO 2004113335	A	29-12-2004	NONE
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