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Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv))

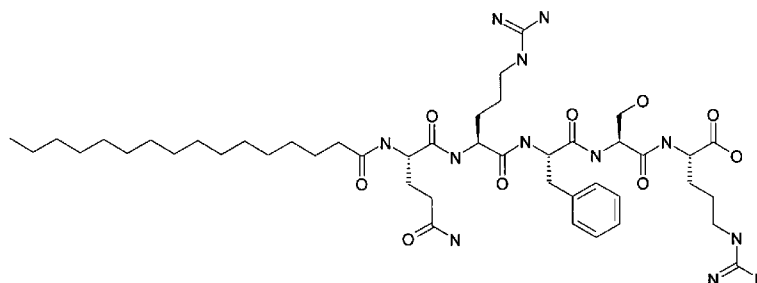
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(88) Date of publication of the international search report:

19 March 2009

(54) Title: PEPTIDE INHIBITORS OF METALLO-ECTOPEPTIDASES, COMPOSITIONS COMPRISING SAID COMPOUNDS AND THEIR PHARMACEUTICAL AND COSMETIC USES



(57) Abstract: The invention relates to a compound that inhibits a metallo-ectopeptidase, selected in the group consisting of x-aa2-aa1-z, x-aa3-aa2-aa1-z, x-aa4-aa3-aa2-aa1-z and x-aa5-aa4-aa3-aa2-aa1-z, wherein: aa1 and aa4, independently from each other, represent an arginine amino acid, an histidine amino acid, an asparagine amino acid or a lysine amino acid, aa2 represents a serine amino acid, a glycine amino acid, a threonine amino acid or an alanine amino acid, aa3 represents a phenylalanine amino acid, a leucine amino acid, an isoleucine amino acid, a tyrosine amino acid or a tryptophan amino acid, aa5 represents a glutamine amino acid, a glutamic acid amino acid, an asparagines amino-acid or a lysine amino acid, x and z, independently from each other, represent: - H; - OH1 SH; - a halogen atom, - an amino group, - an alkyl, haloalkyl or heteroalkyl group containing from 1 to 30 carbon atoms, linear or branched, - an alkenyl or alkynyl group containing from 2 to 30 carbon atoms, linear or branched, - a cycloalkyl, cycloalkenyl, cycloalkynyl or an heterocyclic group containing from 3 to 30 carbon atoms, linear or branched, - one or more aryl or heteroaryl groups containing from 3 to 10 carbon atoms per cycle, - a alkoxy, thioalkyl, sulf onylalkyl, aminoalkyl containing from 1 to 30 carbon atoms, linear or branched, - one or more heterocyclic group, containing from 5 to 10 carbon atoms per cycle, said groups being optionally substituted by one or more halogen atoms, alkyl groups, hydroxy groups, alkoxy groups, aryloxy groups, acyloxy groups, carbamoyloxy groups, carboxy groups, mercapto groups, alkylthio groups, acylthio groups, arylthio groups, aryl groups, heterocyclic groups, heteroaryl groups or amino groups.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2008/001328

A. CLASSIFICATION OF SUBJECT MATTER
 INV. C07K5/062 C07K5/087 C07K5/11 C07K7/06 A61K38/04
 A61K38/08 A61K8/64

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)
 C07K A61K

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, BIOSIS, 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.
X	EP 1 577 320 A (PASTEUR INSTITUT [FR]) 21 September 2005 (2005-09-21) cited in the application the whole document	1-15
X	WISNER ANNE ET AL: "Human Opiorphin, a natural antinociceptive modulator of opioid-dependent pathways" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol. 103, no. 47, November 2006 (2006-11), pages 17979-17984, XP002499569 ISSN: 0027-8424 cited in the application the whole document	1-15

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

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

 International 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.
X	WO 2006/108211 A (MURDOCH CHILDRENS RES INST [AU]; BATEMAN JOHN [AU]; FITZGERALD DAVID J) 19 October 2006 (2006-10-19) page 8, line 28 to page 9, line 6; page 14, line 8; claims 1,4,7-9	1-12,14, 15
X	WO 01/98362 A (HERCULES INC [US]) 27 December 2001 (2001-12-27) pages 3-5; page 9, par.4; page 20, par.4; page 40; claims 1,2,8-12,16,17,21,24,25	1-12,14, 15
X	WO 98/09985 A (YEDA RES & DEV [IL]; EISENBACH SCHWARTZ MICHAL [IL]; BESERMAN PIERRE []) 12 March 1998 (1998-03-12) page 4, line 24; page 14, lines 15-33; claims 1,2,, 9-14	1-12,14, 15
P,X	WO 2007/141030 A (BIO PUR AG [CH]; AMBAR ABRAHAM [DE]; AMBAR BENJAMIN BADRI [CH]) 13 December 2007 (2007-12-13) page 7, line 8	1,2

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2008/001328

Box No. 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:

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 No. 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 allsearchable claims.

2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers 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.:

see annex

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- 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: 2(complete);1,3-15(all partially)

Peptides as defined in claim 2, their compositions and use

2. claims: 1,3-15(all partially)

Peptides defined in claim 1 not being defined in claim 2,
their compositions and use

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/IB2008/001328

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
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