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(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU,
RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ,
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TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
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(54) Title: METHODS OF TREATING AGE RELATED DISORDERS

(57) Abstract: The invention generally relates to methods of treating a patient having, and/or at risk of, oxidative distress disorders and/or age-related disorders. The disclosure also generally relates to methods of treating memory impairment or enhancing the cognitive function of a patient in need thereof. Such methods may include administering a therapeutically effective amount of a MetAP2 inhibitor.



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INTERNATIONAL SEARCH REPORT

International application No PCT/US2012/000461
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A. CLASSIFICATION OF SUBJECT MATTER					
INV. A61K31/336	A61K31/7088	A61K31/713	A61K39/00	A61P39/06	
A61P39/00	A61P19/02	A61P19/00	A61P3/04	A61P25/00	
A61P25/24	A61P25/28	A61P9/00	A61P21/00		
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)
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 practicable, search terms used)

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010/111894 AI (BENNY-RATSABY OFRA [US] ET AL) 6 May 2010 (2010-05-06)	1-5 , 8-20,22 , 23 ,25 ,26 21 ,24
Y	paragraph [0016] paragraph [0017] paragraph [0033] paragraph [0034] paragraph [0037] paragraph [0039] paragraph [0210] - paragraph [0212] c l a i m s 11 ,21 -----	
X	W0 2011/088055 A2 (ZAFGEN CORP [US] ; HUGHES THOMAS E [US]) 21 July 2011 (2011-07-21)	4,5 , 10-26
Y	c l a i m s 1 ,2 , 15-23 ,32-34 paragraph [0036] paragraph [0042] -----	21 ,24
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Further documents are listed in the continuation of Box C.

See patent family annex.

- * Special categories of cited documents :
- | | |
|---|---|
| <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent 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>"&" document member of the same patent family</p> |
|---|---|

Date of the actual completion of the international search 24 April 2013	Date of mailing of the international search report 02/05/2013
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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, Fax: (+31-70) 340-3016	Authorized officer Langer, Oliver
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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,P	wo 2012/122264 AI (ZAFGEN CORP [US] ; VATH JAMES E [US] ; CHAFFEE STUART [US]) 13 September 2012 (2012-09-13) paragraph [0032] paragraph [0034] paragraph [0103] paragraph [0104] paragraph [0110] paragraph [0114] -----	1-5 , 8-20,22 , 23 ,25 ,26
A	wo 2011/044506 A2 (ZAFGEN CORP [US] ; DYKE HAZEL JOAN [GB] ; CRAMP SUSAN MARY [GB] ; PALLIN) 14 April 2011 (2011-04-14) paragraph [0121] - paragraph [0124] paragraph [0154] - paragraph [0165] -----	1-26
A	us 2006/276512 AI (HAN CHEOL-KYU [KR] ET AL) 7 December 2006 (2006-12-07) paragraph [0028] - paragraph [0123] -----	1-26

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2012/000461

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2010111894 A1	06-05-2010	AU 2008268262 A1	31-12-2008
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/00Q461

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 all searchable 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 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.:
21, 24 (completely) ; 1-20, 22, 23, 25, 26 (partially)

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: 21, 24(completely) ; 1-20, 22, 23, 25, 26(partially)

Treatment of oxidative stress disorders, memory impairment, or an age-related disorder; enhancement of cognitive function; or decrease of rate of development of one or more markers indicative of aging in a patient according to claims 1, 4, 8, 7 and 16 involving the use of a MetAP2 inhibitor wherein the inhibitor is selected from a group consisting of fumagillin, fumagillol, fumagillin ketone derivatives and the compounds (B) to (G) and (E) on pages 8 and 9 of the description.

2. claims: 1-19, 22, 23, 25, 26(ally partially)

Treatment of oxidative stress disorders, memory impairment, or an age-related disorder; enhancement of cognitive function; or decrease of rate of development of one or more markers indicative of aging in a patient according to claims 1, 4, 8, 7 and 16 involving the use of a MetAP2 inhibitor wherein the inhibitor is compound (H) on page 8 of the description.

3. claims: 1-20, 22, 23, 25, 26(ally partially)

Treatment of oxidative stress disorders, memory impairment, or an age-related disorder; enhancement of cognitive function; or decrease of rate of development of one or more markers indicative of aging in a patient according to claims 1, 4, 8, 7 and 16 involving the use of a MetAP2 inhibitor wherein the inhibitor is selected from a group consisting of siRNA and shRNA.

4. claims: 1-20, 22, 23, 25, 26(ally partially)

Treatment of oxidative stress disorders, memory impairment, or an age-related disorder; enhancement of cognitive function; or decrease of rate of development of one or more markers indicative of aging in a patient according to claims 1, 4, 8, 7 and 16 involving the use of a MetAP2 inhibitor wherein the inhibitor is an antibody.

5. claims: 1-20, 22, 23, 25, 26(ally partially)

Treatment of oxidative stress disorders, memory impairment, or an age-related disorder; enhancement of cognitive function; or decrease of rate of development of one or more markers indicative of aging in a patient according to claims 1, 4, 8, 7 and 16 involving the use of a MetAP2 inhibitor

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

wherein the inhibitor is an anti sense compound.
