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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
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1 March 2012

(54) Title: INNOVATIVE DISCOVERY OF THERAPEUTIC, DIAGNOSTIC, AND ANTIBODY COMPOSITIONS RELATED TO PROTEIN FRAGMENTS OF ARGINYL-TRNA SYNTHETASES

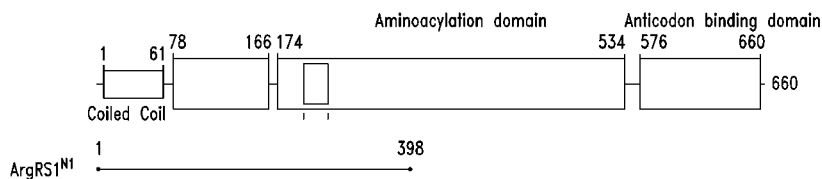


FIG. 1

(57) Abstract: Provided are compositions comprising newly identified protein fragments of aminoacyl-tRNA synthetases, polynucleotides that encode them and complements thereof, related agents, and methods of use thereof in diagnostic, drug discovery, research, and therapeutic applications.



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**A. CLASSIFICATION OF SUBJECT MATTER**

*A61K 39/395(2006.01)i, A61K 39/39(2006.01)i, A61K 38/43(2006.01)i, A61K 38/16(2006.01)i, C12N 9/00(2006.01)i, A61P 37/00(2006.01)i*

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: A61K 39; C07K 16; C40B 40; C12N 15

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)

eKOMPASS(KIPO internal), PUBMED

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2006-0035232 A1 (DUNCAN MCGREGOR et al.) 16 February 2006 See whole document.	1-5, 16-77, 79-80 , 83-91, 105-108 , 114-123
A	WO 98-50554 A2 (HUMAN GENOME SCIENCES, INC.) 12 November 1998 See whole document.	1-5, 16-77, 79-80 , 83-91, 105-108 , 114-123
A	EP 2084190 A1 (NOVARTIS AG) 05 August 2009 See whole document.	1-5, 16-77, 79-80 , 83-91, 105-108 , 114-123
A	WO 97-25426 A2 (CORIXA CORPORATION) 17 July 1997 See whole document.	1-5, 16-77, 79-80 , 83-91, 105-108 , 114-123

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 application or patent 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 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

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**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.: 92-104, 109-113, 124-125  
because they relate to subject matter not required to be searched by this Authority, namely:  
Claims 92-104, 109-113, and 124-125 pertain to methods for treatment or diagnostic of the human body by therapy, and thus relate to a subject matter which this International Searching Authority is not required, under Article 17(2)(a)(i) of the PCT and Rule 39.1(iv) of the Regulations under the PCT, to search.
2.  Claims Nos.: 7-11, 13, 99-100  
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:  
Claims 7-11, 13, and 99-100 are unclear since it refers to each claim which is not searchable due to not being drafted in accordance with the third sentence of Rule 6.4(a).
3.  Claims Nos.: 6, 12, 14-15, 78, 81-82, 98  
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:

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.:

**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.

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2011/034838**

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International application No.

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