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(54) Title: TRANSGLUTAMINASE INHIBITORS AND METHODS OF USE THEREOF

(57) Abstract: Transglutaminase inhibitors and methods of use thereof are provided.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 06/33486

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A01N 43/80; A61K 31/42 (2007.01) USPC - 514/378 According to International Patent Classification (IPC) or to both national classification and IPC</p>																		
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) USPC - 514/378</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC - 514/236.8; 254.04; 340; 379; 530/300 (see search terms below)</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WEST (PGPB,USPT,EPAB,JPAB): transglutaminase, cancer, cellac sprue, dermatitis herpetiformis, enantiopure esp@cenet: transglutaminase, Stanford; Google Patents: transglutaminase, antimetotics, anthracyclines, metal complexes Google Scholar: transglutaminase, inhibitor, radiation</p>																		
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X — Y</td> <td>US 2004/0167069 A1 (KHOSLA et al.) 26 August 2004 (26.08.2004), para [0009], [0012], [0014], [0017]-[0024], [0029], [0044], [0051]-[0055], [0065], [0068]; claim 15</td> <td>1-4, 7-35 5-6</td> </tr> <tr> <td>Y</td> <td>US 2005/0090653 A1 (KLAIVENESS et al.) 28 April 2005 (28.04.2005), abstract; para [0077]</td> <td>5</td> </tr> <tr> <td>Y</td> <td>US 2003/0224476 A1 (CHOU) 04 December 2003 (04.12.2003), abstract; para [0144], [0129]</td> <td>6</td> </tr> </tbody> </table> <p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/></p> <p>* 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 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 "&" document member of the same patent family</p> <table border="1"> <tr> <td>Date of the actual completion of the international search 26 August 2007 (26.08.2007)</td> <td>Date of mailing of the international search report 28 SEP 2007</td> </tr> <tr> <td>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</td> <td>Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</td> </tr> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X — Y	US 2004/0167069 A1 (KHOSLA et al.) 26 August 2004 (26.08.2004), para [0009], [0012], [0014], [0017]-[0024], [0029], [0044], [0051]-[0055], [0065], [0068]; claim 15	1-4, 7-35 5-6	Y	US 2005/0090653 A1 (KLAIVENESS et al.) 28 April 2005 (28.04.2005), abstract; para [0077]	5	Y	US 2003/0224476 A1 (CHOU) 04 December 2003 (04.12.2003), abstract; para [0144], [0129]	6	Date of the actual completion of the international search 26 August 2007 (26.08.2007)	Date of mailing of the international search report 28 SEP 2007	Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 06/33486

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:
Group I: claims 1-35
Group II: claim 36

It will be readily apparent that the chemical formula of claim 1 common to the tTGase inhibitors of claims 1-35 is distinct from the chemical formula of claim 36. Thus, the claims of groups I and II do not share any underlying common feature and thus lack the necessary unity of invention as required under Rule 13.1.

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 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.:
1-35

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.