Title: USE OF TUMOR NECROSIS FACTOR-ALPHA P75 RECEPTOR FOR THE REDUCTION OF INFLAMMATION

Abstract: As described below, the present invention features compositions and methods for increasing TNFR2/p75 receptor signaling to reduce inflammation. Methods for increasing TNFR2/p75 expression or signaling may also be used to increase the survival of resident cells or transplanted stem cells (e.g., bone marrow derived or peripheral blood derived stem cells) in a damaged tissue.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC: A61K 48/00(2006.01); C12N 15/63(2006.01); 15/85(2006.01); C12Q 1/68(2006.01); G01N 33/567(2006.01)

USPC: 514/44; 424/93.21; 435/320.1, 455, 6, 7.21

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)

U.S. : 514/44; 424/93.21; 435/320.1, 455, 6, 7.21

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

none

Electronic database consulted during the international search (name of data base and, where practicable, search terms used)

Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<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>E, X</td>
<td>WO 2007/056048 (LOSORDO, D. W.) 3 May 2007 (03.05.2007), see claims 1-52 which</td>
<td>1-8, 23-29, 32-37</td>
</tr>
<tr>
<td></td>
<td>receive identical subject matter to instant claims.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>document.</td>
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<tr>
<td>Y</td>
<td></td>
<td>28-29</td>
</tr>
<tr>
<td>X</td>
<td>GOULD, D.J. et al. Inhibition of established collagen-induced arthritis with a tumour</td>
<td>1-2, 7, 24, 26-29</td>
</tr>
<tr>
<td></td>
<td>necrosis factor-alpha inhibitor expressed from a self-contained doxyecidine regulated</td>
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<td>plasmid.</td>
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<td>Y</td>
<td>Arthritis Research and Therapy. 2004. Vol. 6 No. 2, 103-113, see entire document.</td>
<td>3-6, 8, 25, 32-37</td>
</tr>
<tr>
<td>Y</td>
<td>ZHOU. R. et al. Involvement of TNFR2 on expression of MMPs and Apoptosis-related</td>
<td>4-5</td>
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<td></td>
<td>genes in the infarcted heart. FASEB. March 2003, Vol. 17. No. 4-5, page A879, see</td>
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<td></td>
<td>abstract 574.14.</td>
<td></td>
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</tbody>
</table>

Further documents are listed in the continuation of Box C. See patent family annex.

Date of the actual completion of the international search

01 August 2008 (01.08.2008)

Date of mailing of the international search report

15 AUG 2008

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner of Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Form PCT/ISA/210 (second sheet) (July 1998)
INTERNATIONAL SEARCH REPORT

Box I Observations where certain claims were found un searchable (Continuation of Item 1 of first sheet)

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

1. □ Claim Nos.:
   because they relate to subject matter not required to be searched by this Authority, namely:

2. □ Claim 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. □ Claim Nos.: 9-23, 30-31
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 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.
□ No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet(1)) (July 1998)
Continuation of B. FIELDS SEARCHED Item 3:
DIALOG-medicine database; BRS/EAST-USPatful, EPO, JPO, Derwint, PG-Pubs
search terms: TNFR2, p75, 75kd, tumor necrosis factor receptor 2, plasmid, vector, construct, DNA, transfect?, transduc?, inflammation