



(51) International Patent Classification:

A61K 39/395 (2006.01) A61P 3/10 (2006.01)
A61K 48/00 (2006.01) A61P 11/00 (2006.01)
A61P 11/06 (2006.01)

(21) International Application Number:

PCT/US2012/042517

(22) International Filing Date:

14 June 2012 (14.06.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/497,397 15 June 2011 (15.06.2011) US

(71) Applicant (for all designated States except US): **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA** [US/US]; 1111 Franklin Street, 12th Floor, Oakland, California 94607-5200 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SOO, B. Chia** [US/US]; 115 N. Doheny Drive, Beverly Hills, California 90211 (US). **TING, Kang** [US/US]; 115 N. Doheny Drive, Beverly Hills, California 90211 (US). **ZHENG, Zhong** [CN/US]; 7350 Kester Ave. #211, Van Nuys, California 91405 (US).

(74) Agents: **LI, Zhaoyang** et al.; Squire Sanders (US) LLP, 275 Battery Street, Suite 2600, San Francisco, California 94111 (US).

(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, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, 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, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

Published:

— with international search report (Art. 21(3))

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

25 April 2013

(54) Title: METHODS AND COMPOSITIONS FOR MODULATING MYOFIBROBLAST ACTIVITIES

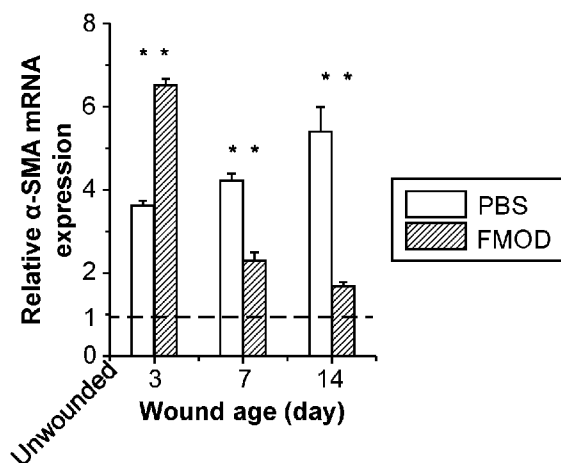


FIG. 4

(57) Abstract: The present invention discloses methods and compositions for treating or ameliorating a condition associated with increased or decreased myofibroblast activities and use thereof.

WO 2012/174280 A3

A. CLASSIFICATION OF SUBJECT MATTER*A61K 39/395(2006.01)i, A61K 48/00(2006.01)i, A61P 11/06(2006.01)i, A61P 3/10(2006.01)i, A61P 11/00(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)

A61K 39/395; A61K 31/726; C07K 14/475; A61K 38/46; C07K 14/435

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: , ,

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2010-138637 A2 (THE REGENTS OF THE UNIVERSITY OF CALIFORNIA et al.) 02 December 2010 See claims 4, 6, 7, 9, 10, p.3 line 11	12-18
X	US 2008-0152639 A1 (SOO CHIA) 26 June 2008 See claims 1-3, paragraphs [0173]-[0180]	12-18

 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

31 JANUARY 2013 (31.01.2013)

Date of mailing of the international search report

01 FEBRUARY 2013 (01.02.2013)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

LIM, Hea Joon

Telephone No. 82-42-481-8395



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.: 1-11
because they relate to subject matter not required to be searched by this Authority, namely:
The subject matter of claims 1 - 11 does not require a written opinion since it is directed to methods for treatment of the human body by surgery or therapy, as well as diagnostic methods (Rule 43bis.1(b), Rule 67.1(iv) PCT).
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:

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/US2012/042517

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2010-138637 A2	02.12.2010	CA 2763466 A1 CN 102448983 A KR 10-2012-0018202 A WO 2010-138637 A3	02.12.2010 09.05.2012 29.02.2012 21.04.2011
US 2008-0152639 A1	26.06.2008	US 2004-0170615 A1	02.09.2004