(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 November 2014 (13.11.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/182610 A3

(51) International Patent Classification:
A61K 31/137 (2006.01) *A61K 31/165* (2006.01)
A61K 31/4164 (2006.01) *A61K 9/00* (2006.01)
A61K 31/4174 (2006.01) *A61P 17/02* (2006.01)
A61K 31/498 (2006.01)

(21) International Application Number:
PCT/US2014/036778

(22) International Filing Date:
5 May 2014 (05.05.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/819,927 6 May 2013 (06.05.2013) US

(71) Applicant: **ALLERGAN, INC.** [US/US]; 2525 Dupont Drive, Irvine, California 92612 (US).

(72) Inventors: **GIL, Daniel W.**; 2541 Point Del Mar, Corona Del Mar, California 92625 (US). **ANDREWS-JONES, Lydia L.**; 24812 Via Princesa, Lake Forest, California 92630 (US). **HSIA, Edward C.**; 12 Ensueno West, Irvine, California 92620 (US). **TIAN, Mingting**; 57 Pacific Crest, Irvine, California 92602 (US).

(74) Agents: **BANERJEE, Krishna** et al.; ALLERGAN, INC., 2525 Dupont Drive, Irvine, California 92612 (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, 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, IR, IS, JP, KE, KG, 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, SA, 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, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

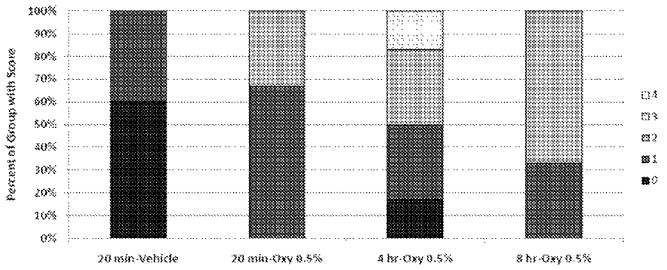
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

[Continued on next page]

(54) Title: ALPHA ADRENERGIC AGONISTS FOR IN THE TREATMENT OF TISSUE TRAUMA

FIG. 1



Score	Definition / Criteria
Very Poor	Very poor healing result, majority of epidermis unhealed
Poor	Poor healing result, large amounts of unhealed epidermis
Fair	Fair healing result, multifocal small areas of unhealed epidermis, majority of dermis covered by at least a thin layer or epidermis
Good	Good healing result, all areas healed but with focal areas of lesser quality healing
Excellent	Excellent healing result, all areas well healed

(57) Abstract: The present invention provides a method of treating tissue trauma (such as damage from radiation (such as solar and ultraviolet radiation), wounds, bruising, burns, blisters, excoriations, incisions, excisions, and ulcers) in a subject, comprising topically administering to the tissue area of the subject affected by said trauma a composition comprising a therapeutically effective amount of at least one alpha adrenergic agonist (such as oxymetazoline hydrochloride). The present invention also provides a method for alleviating the pain or discomfort associated with aesthetic or plastic surgery or cosmetology procedures in a subject comprising administering said alpha adrenergic agonist.

WO 2014/182610 A3

WO 2014/182610 A3

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))*

(88) Date of publication of the international search report:
31 December 2014