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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
6 September 2013 (06.09.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/131040 A1

(51) International Patent Classification:
A61K 31/74 (2006.01) *A61K 38/00* (2006.01)
A61K 38/16 (2006.01)

(21) International Application Number:
PCT/US2013/028727

(22) International Filing Date:
1 March 2013 (01.03.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/605,528 1 March 2012 (01.03.2012) US

(71) Applicant: **FIRSTSTRING RESEARCH, INC.** [US/US]; 475-A East Bay Street, Charleston, SC 29403 (US).

(72) Inventor: **GHATNEKAR, Gautam**; 475-A East Bay Street, Charleston, SC 29403 (US).

(74) Agents: **MCLEOD, Bonnie, Weiss** et al.; Cooley LLP, 1299 Pennsylvania Avenue, Suite 700, Washington, DC 20004 (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, 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, PA, 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))*

— *with sequence listing part of description (Rule 5.2(a))*

WO 2013/131040 A1

(54) Title: TOPICAL GELS CONTAINING ALPHA CONNEXIN C-TERMINAL (ACT) PEPTIDES

(57) Abstract: This invention relates to a topical gel drug product preparation containing a composition comprising an isolated polypeptide having a carboxy-terminal amino acid sequence of an alpha connexin (ACT peptide), peptide stabilizers, excipients, buffering agents, and the like. A formulation and preparation steps are disclosed for the manufacturing of a stable, elegant, and pourable topical gel. The resulting formulation possesses long term stability suitable for aesthetic as well as therapeutic applications including the prevention of scaring and accelerated healing of wounds.