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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
02 September 2021 (02.09.2021)

WIPO | PCT

(10) International Publication Number
WO 2021/173749 A1

(51) International Patent Classification:
A61P 17/14 (2006.01) *A61K 45/00* (2006.01)
A61K 38/17 (2006.01) *A61K 47/34* (2017.01)

(21) International Application Number:
PCT/US2021/019522

(22) International Filing Date:
25 February 2021 (25.02.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/981,480 25 February 2020 (25.02.2020) US

(71) Applicant: **AMPLIFICA, INC.** [US/US]; Bernardo Center Drive, Suite 354, San Diego, CA 92128 (US).

(72) Inventors: **ROSEN, David, K.**; Bernardo Center Drive, Suite 354, San Diego, CA 92128 (US). **RASSMAN, William**; Bernardo Center Drive, Suite 354, San Diego, CA 92128 (US).

(74) Agent: **LEACH, Justine, M.** et al.; Morgan, Lewis & Bockius LLP, 1701 Market Street, Philadelphia, PA 19103 (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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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, ST, 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,

(54) **Title:** COMPOSITIONS AND METHODS FOR STIMULATING HAIR GROWTH

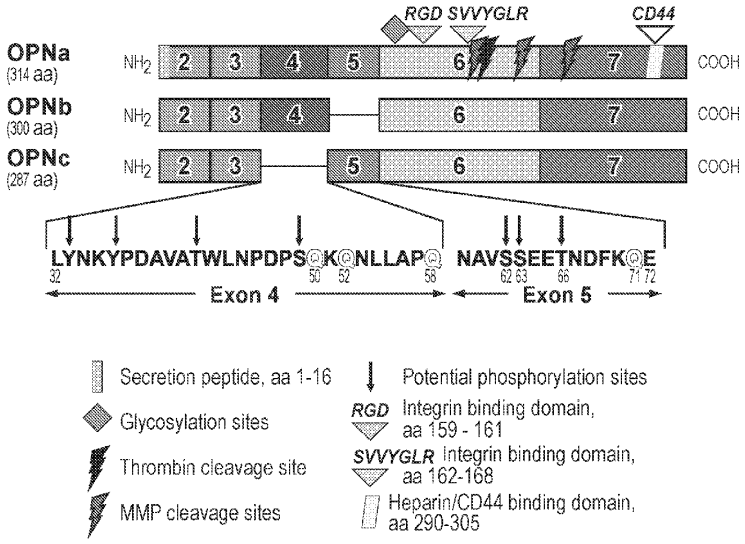


FIG. 1

(57) **Abstract:** Methods and compositions for stimulating hair growth are disclosed. Compositions for stimulating hair growth include two or more of hyaluronic acid, osteopontin, and another CD44 binding ligand. Methods for stimulating hair growth include administering such composition into the skin of a patient.

[Continued on next page]

WO 2021/173749 A1

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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