

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 December 2024 (05.12.2024)



(10) International Publication Number
WO 2024/249898 A3

(51) International Patent Classification:

A61K 38/20 (2006.01) C12P 21/02 (2006.01)
A61P 37/06 (2006.01) C12N 5/10 (2006.01)
C07K 14/54 (2006.01) C12N 15/62 (2006.01)
C12N 15/86 (2006.01) A61P 1/00 (2006.01)

(21) International Application Number:

PCT/US2024/032054

(22) International Filing Date:

31 May 2024 (31.05.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/506,000 02 June 2023 (02.06.2023) US

(71) Applicant: SYNTHETIKINE, INC. [US/US]; 1505 O'Brien Drive, Suite D, Menlo Park, CA 94025 (US).

(72) Inventors: MORIN, Andrew; c/o Synthekine, Inc., 1505 O'Brien Drive, Suite D, Menlo Park, CA 94025 (US).
RAMADASS, Mahalakshmi; c/o Synthekine, Inc., 1505 O'Brien Drive, Suite D, Menlo Park, CA 94025 (US).
PETOJEVIC, Tatjana; c/o Synthekine, Inc., 1505 O'Brien

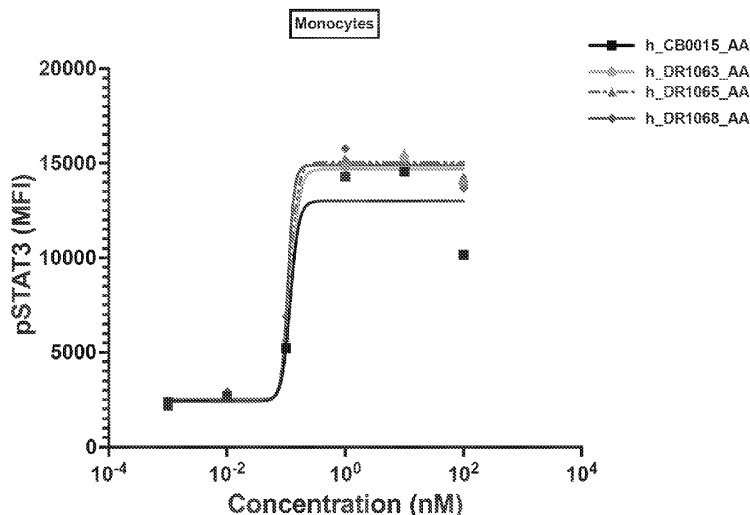
Drive, Suite D, Menlo Park, CA 94025 (US). JAYARAMAN, Bhargavi; c/o Synthekine, Inc., 1505 O'Brien Drive, Suite D, Menlo Park, CA 94025 (US). VIVONA, Sandro; c/o Synthekine, Inc., 1505 O'Brien Drive, Suite D, Menlo Park, CA 94025 (US). LUPARDUS, Patrick; c/o Synthekine, Inc., 1505 O'Brien Drive, Suite D, Menlo Park, CA 94025 (US).

(74) Agent: YAO, Zhengzheng et al.; Kilpatrick Townsend & Stockton LLP, Mailstop: IP Docketing - 22, 1100 Peachtree Street, Suite 2800, Atlanta, GA 30309 (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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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.

(54) Title: FUSED IL10 POLYPEPTIDES

FIG. 1A



(57) Abstract: The present disclosure relates generally to compositions and methods for modulating signal transduction mediated by interleukin-10 (IL10). In particular, the disclosure provides fused IL10 polypeptides comprising two IL10 monomers. Also provided are compositions and methods useful for producing such fused IL10 polypeptides, as well as methods for modulating IL10-mediated signaling, and/or for the treatment of conditions associated with the perturbation of signal transduction mediated by IL10.

[Continued on next page]

WO 2024/249898 A3

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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))*

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:

06 March 2025 (06.03.2025)