

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
12 May 2022 (12.05.2022)



(10) International Publication Number
WO 2022/098905 A3

(51) International Patent Classification:

A61K 31/7088 (2006.01) A61K 38/19 (2006.01)
A61K 35/15 (2015.01) A61K 39/00 (2006.01)
A61K 38/17 (2006.01) A61K 39/395 (2006.01)

(21) International Application Number:

PCT/US2021/058104

(22) International Filing Date:

04 November 2021 (04.11.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/109,445	04 November 2020 (04.11.2020)	US
63/162,205	17 March 2021 (17.03.2021)	US
63/196,994	04 June 2021 (04.06.2021)	US
63/251,400	01 October 2021 (01.10.2021)	US

(71) Applicant: MYELOID THERAPEUTICS, INC.

[US/US]; 300 Technology Square, Suite 203, Cambridge, MA 02139 (US).

(72) Inventors: GETTS, Daniel; c/o Myeloid Therapeutics,

Inc., 300 Technology Square, Suite 203, Cambridge, MA

02139 (US). WANG, Yuxiao; c/o Myeloid Therapeutics, Inc., 300 Technology Square, Suite 203, Cambridge, MA 02139 (US). MCCREEDY, Bruce, Jr.; c/o Myeloid Therapeutics, Inc., 300 Technology Square, Suite 203, Cambridge, MA 02139 (US).

(74) Agent: GHOSH, Sanjukta; Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, CA 94304 (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,

(54) Title: ENGINEERED CHIMERIC FUSION PROTEIN COMPOSITIONS AND METHODS OF USE THEREOF

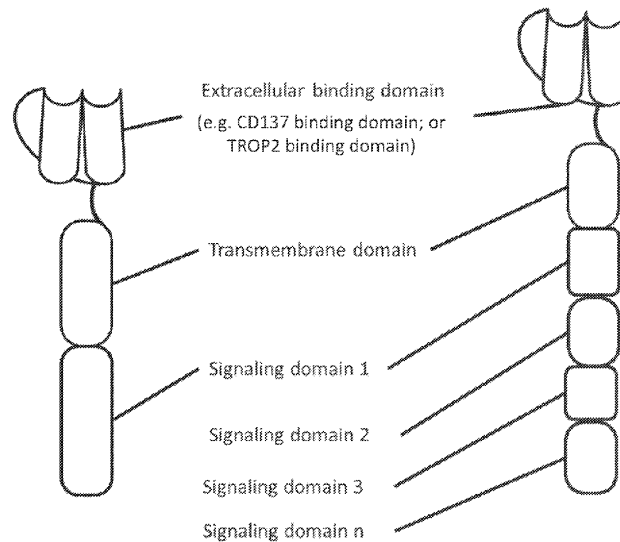


FIG. 1

(57) Abstract: Compositions and methods for making and using engineered cells, such as, engineered myeloid cells that express a chimeric fusion protein that has a binding domain capable to binding surface molecules on target cells such as diseased cells.

[Continued on next page]

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))*

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:

09 June 2022 (09.06.2022)