

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
14 July 2022 (14.07.2022)



(10) International Publication Number
WO 2022/150712 A1

(51) International Patent Classification:
C07K 14/54 (2006.01) C12N 15/00 (2006.01)

(21) International Application Number:
PCT/US2022/011841

(22) International Filing Date:
10 January 2022 (10.01.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/135,501 08 January 2021 (08.01.2021) US

(71) Applicant: STRAND THERAPEUTICS, INC. [US/US];
237 Putnam Avenue, Cambridge, Massachusetts 02139
(US).

(72) Inventors: KITADA, Tasuku; C/O STRAND THERA-
PEUTICS, INC., 237 Putnam Avenue, Cambridge, Mass-
achusetts 02139 (US). BECRAFT, Jacob; C/O STRAND
THERAPEUTICS, INC., 237 Putnam Avenue, Cam-
bridge, Massachusetts 02139 (US). SOWELL, Ryan; C/
O STRAND THERAPEUTICS, INC., 237 Putnam Av-
enue, Cambridge, Massachusetts 02139 (US). KHURANA,
Jaspreet; C/O STRAND THERAPEUTICS, INC., 237 Put-
nam Avenue, Cambridge, Massachusetts 02139 (US). SI-
MON, Anna; 12 St. Paul St., Apt. 3, Cambridge, Massa-
chusetts 02139 (US). BARBERIO, Joseph; C/O STRAND
THERAPEUTICS, INC., 237 Putnam Avenue, Cambridge,
Massachusetts 02139 (US). ZHAO, Weiyu; C/O STRAND
THERAPEUTICS, INC., 237 Putnam Avenue, Cambridge,
Massachusetts 02139 (US). LEMAIRE, Alexander; C/O
STRAND THERAPEUTICS, INC., 237 Putnam Avenue,
Cambridge, Massachusetts 02139 (US). SHAH, Aalok; C/
O STRAND THERAPEUTICS, INC., 237 Putnam Avenue,
Cambridge, Massachusetts 02139 (US).

(74) Agent: KIM, Ji Eun et al.; STERNE, KESSLER,
GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue,
NW, Washington, District of Columbia 20005 (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,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

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))

(54) Title: EXPRESSION CONSTRUCTS AND USES THEREOF

(57) Abstract: The present disclosure relates to an isolated polynucleotide comprising a sequence that encodes an interleukin (IL)-12 molecule, and a delivery system that can carry the polynucleotides. The disclosure also includes methods of making the polynucleotides and methods of treatment using the same.

WO 2022/150712 A1