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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
12 September 2024 (12.09.2024)

WIPO | PCT

(10) International Publication Number
WO 2024/186635 A3

(51) International Patent Classification:
C07K 16/24 (2006.01) *A61P 37/02* (2006.01)

(21) International Application Number:
PCT/US2024/018068

(22) International Filing Date:
01 March 2024 (01.03.2024)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

63/488,388	03 March 2023 (03.03.2023)	US
63/452,326	15 March 2023 (15.03.2023)	US
63/465,970	12 May 2023 (12.05.2023)	US

(71) Applicant: **CELLDEX THERAPEUTICS, INC.** [US/US]; 53 Frontage Road, Suite 220, Hampton, NJ 08827 (US).

(72) Inventors: **KELER, Tibor**; 53 Frontage Road, Suite 220, Hampton, NJ 08827 (US). **ALVARADO, Diego**; 53 Frontage Road, Suite 220, Hampton, NJ 08827 (US). **GOLDSTEIN, Joel**; 53 Frontage Road, Suite 220, Hampton, NJ 08827 (US). **VITALE, Laura, A.**; 53 Frontage Road, Suite 220, Hampton, NJ 08827 (US). **MURPHY, Michael**; 53 Frontage Road, Suite 220, Hampton, NJ 08827 (US). **THOMAS, Lawrence, J.**; 53 Frontage Road, Suite 220, Hampton, NJ 08827 (US).

(74) Agent: **REMILLARD, Jane, E.** et al.; Nelson Mullins Riley & Scarborough LLP, One Financial Center, Suite 3500, Boston, MA 02111 (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.

(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).

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:
24 October 2024 (24.10.2024)

WO 2024/186635 A3

(54) Title: ANTI-STEM CELL FACTOR (SCF) AND ANTI-THYMIC STROMAL LYMPHOPOIETIN (TSLP) ANTIBODIES AND BISPECIFIC CONSTRUCTS

(57) Abstract: Provided herein are novel anti-TSLP and anti-SCF antibodies, and binding domains thereof, as well as bispecific constructs comprising such antibodies and binding domains. Also provided herein are methods of treating disorders associated with an immune response (e.g., immune cell migration, activation, and/or proliferation) via interaction (e.g., binding) of TSLP and/or SCF with its receptor (TSLPR and/or c-Kit, respectively) on immune cells (such as disorders of the immune system) by administering the antibodies (or antigen binding fragments thereof), bispecific constructs, or compositions described herein to a patient in need thereof.