

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

(19) World Intellectual Property  
Organization

International Bureau

(43) International Publication Date  
21 September 2023 (21.09.2023)



(10) International Publication Number  
**WO 2023/178134 A2**

(51) International Patent Classification:

G01N 33/68 (2006.01) C12Q 1/68 (2018.01)

G01N 33/569 (2006.01)

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.

(21) International Application Number:

PCT/US2023/064374

(22) International Filing Date:

15 March 2023 (15.03.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/319,883 15 March 2022 (15.03.2022) US

63/433,728 19 December 2022 (19.12.2022) US

(71) Applicant: **REGENERON PHARMACEUTICALS, INC.** [US/US]; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US).

(72) Inventors: **KLOTZ, Brian**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **ASRAT, Seblewongel**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **SETLIFF, Marion Francis**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **VECHIONE, Andrea**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **DEVLIN, Joseph Cooper**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **LIM, Wei Keat**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **DAVIS, Samuel**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **SONG, Hang**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **ORENGO, Jamie**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **ATWAL, Gurinder**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **SLEEMAN, Matthew**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **LEE, Wen-Yi**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **CHEN, Gang**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **VELEZ, Kristel**; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US).

(74) Agent: **LEGAARD, Paul K.** et al.; Armstrong Teasdale LLP, 7700 Forsyth Boulevard, Suite 1800, St. Louis, Missouri 63105 (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,

(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:

- without international search report and to be republished upon receipt of that report (Rule 48.2(g))
- with sequence listing part of description (Rule 5.2(a))

(54) Title: METHODS OF MAPPING ANTIGEN SPECIFICITY TO ANTIBODY-SECRETING CELLS

(57) Abstract: The present disclosure provides antibody capture complexes and methods of capturing a target antibody secreted by an antibody secreting cell.

WO 2023/178134 A2