

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 May 2022 (05.05.2022)



(10) International Publication Number
WO 2022/094334 A1

(51) International Patent Classification:

C07K 16/18 (2006.01) A61P 37/02 (2006.01)
C07K 16/28 (2006.01) A61K 9/08 (2006.01)
A61K 47/02 (2006.01) A61P 25/00 (2006.01)

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))

(21) International Application Number:

PCT/US2021/057443

(22) International Filing Date:

29 October 2021 (29.10.2021)

(25) Filing Language:

English

(26) Publication Language:

English

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))

(30) Priority Data:

63/107,182 29 October 2020 (29.10.2020) US
63/143,541 29 January 2021 (29.01.2021) US
63/178,286 22 April 2021 (22.04.2021) US

(71) Applicant: **VIELA BIO, INC.**, [US/US]; One MedImmune Way, Gaithersburg, Maryland 20878 (US).

(72) Inventors: **SHE, Dewei**; c/o VIELA BIO, INC., One MedImmune Way, Gaithersburg, Maryland 20878 (US). **RATCHFORD, Jack**; c/o VIELA BIO, INC., One MedImmune Way, Gaithersburg, Maryland 20878 (US). **KATZ, Eliezer**; c/o Viela Bio, Inc., One MedImmune Way, Gaithersburg, Maryland 20878 (US). **REES, William**; c/o - Viela Bio, Inc., One MedImmune Way, Gaithersburg, Maryland 20878 (US).

(74) Agent: **BROWN, Fraser** et al.; COOLEY LLP, 1299 Pennsylvania Avenue, Suite 700, Washington, District of Columbia 20004 (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,

(54) Title: USE OF AN ANTI-CD19 ANTIBODY TO TREAT AUTOIMMUNE DISEASE

(57) Abstract: Methods for using an anti-CD19 antibody to treat autoimmune disease are disclosed herein. In particular the use of VIB551, a humanised, affinity-optimised, afucosylated IgG1 kappa monoclonal antibody to treat Neuromyelitis optica spectrum disorder.

WO 2022/094334 A1