

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
23 June 2022 (23.06.2022)



(10) International Publication Number
WO 2022/130342 A4

(51) International Patent Classification:

C07K 16/46 (2006.01) *A61P 27/02* (2006.01)
A61K 39/395 (2006.01) *C07K 16/28* (2006.01)
A61P 9/14 (2006.01)

(21) International Application Number:

PCT/IB2021/061972

(22) International Filing Date:

17 December 2021 (17.12.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/127,408 18 December 2020 (18.12.2020) US

(71) Applicant: **ANTLERA THERAPEUTICS INC.**
[CA/CA]; 2400-333 Bay Street, P.O. Box 20, Ico Fasken Martineau, Toronto, Ontario M5H 2T6 (CA).

(72) Inventors: **ANGERS, Stephane**; H: 29 Callisto Court, Mississauga, Ontario L5M 0A1 (CA). **SIDHU, Sachdev**; 134 Brunswick Ave., Toronto, Ontario M5S2M3 (CA). **BLAZER, Levi**; 2816 Bloor St. West Apt. 2, Etobicoke, Ontario M8X 1A7 (CA). **ADAMS, Jarrett**; 1801 Bayview Ave Unit 107, Toronto, Ontario M4G4K2 (CA).

SESHAGIRI, Somasekar; 2400-333 Bay Street, P.O. Box 20, Ico Fasken Martineau, Toronto, Ontario M5H 2T6 (CA).

(74) Agent: **LEDGLEY, Cynthia**; 724 Annette Street, Toronto, Ontario M6S 2E2 (CA).

(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).

(54) Title: TETRAVALENT FZD AND WNT CO-RECEPTOR BINDING ANTIBODY MOLECULES AND USES THEREOF

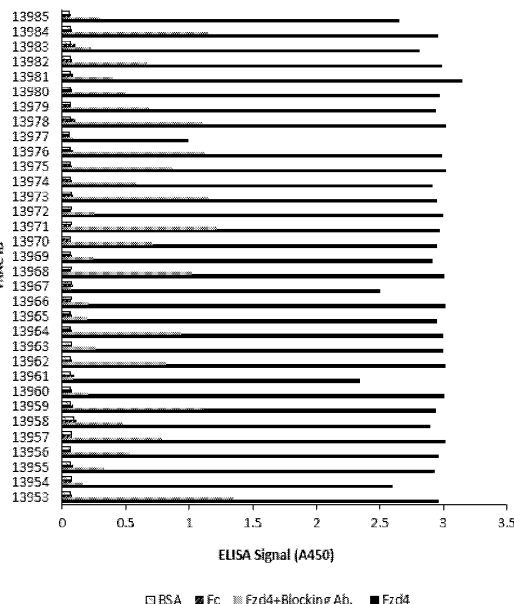


FIG 1A

(57) Abstract: Described herein are tetraivalent binding antibody molecules comprising a FZD receptor binding domain and an LRP5/6 co-receptor binding domain on opposite termini of an Fc domain that activate a Wnt beta-catenin signaling pathway and methods for their use.

[Continued on next page]

Published:

- *with international search report (Art. 21(3))*
- *with amended claims (Art. 19(1))*
- *with sequence listing part of description (Rule 5.2(a))*
- *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*

Date of publication of the amended claims:

11 August 2022 (11.08.2022)