



- (51) International Patent Classification:
A61K 38/08 (2019.01)
- (21) International Application Number:
PCT/US2021/041998
- (22) International Filing Date:
16 July 2021 (16.07.2021)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
63/053,340 17 July 2020 (17.07.2020) US
- (71) Applicant: **PHARMAIN CORPORATION** [US/US];
11812 North Creek Parkway North, Suite 101, Bothell,
Washington 98011 (US).
- (72) Inventors: **JIANG, Han**; c/o 11812 North Creek Park-
way North, Suite 101, Bothell, Washington 98011 (US).
YAO, Yao; 11812 North Creek Parkway North, Suite 101,
Bothell, Washington 98011 (US). **CASTILLO, Gerardo**

M.; 11812 North Creek Parkway North, Suite 101, Both-
ell, Washington 98011 (US). **NISHIMOTO-ASHFIELD,**
Akiko; 11812 North Creek Parkway North, Suite 101,
Bothell, Washington 98011 (US). **VENTOCILLA, Chris-**
tian; 11812 North Creek Parkway North, Suite 101, Both-
ell, Washington 98011 (US). **BOLOTIN, Elijah**; 11812
North Creek Parkway North, Suite 101, Bothell, Washing-
ton 98011 (US).

- (74) Agent: **ZHENG, Juan**; Christensen O'Conner Johnson
Kindness PLLC, 1201 Third Avenue, Suite 3600, Seattle,
Washington 98101-3029 (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,

- (54) Title: VIA RECEPTOR PARTIAL AGONIST AND METHOD OF USE

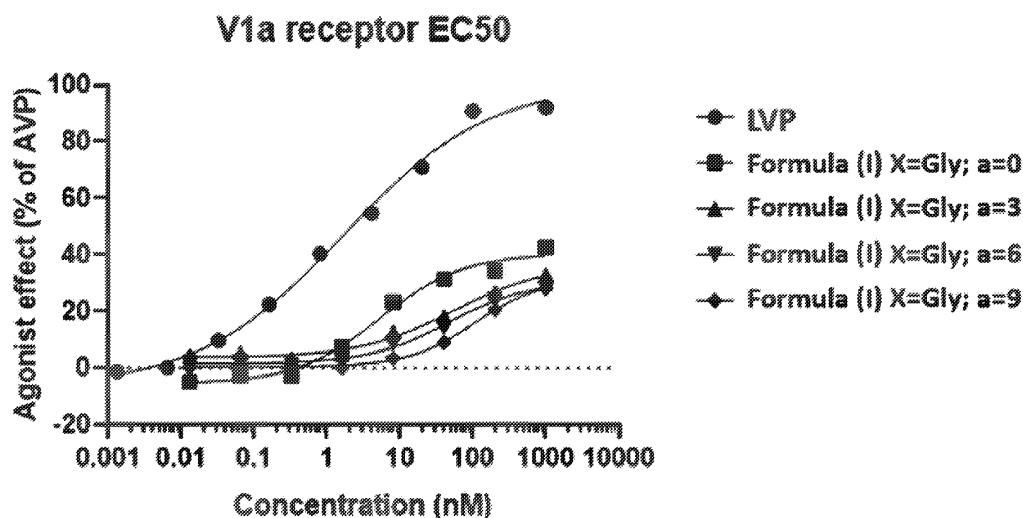


FIG. 2

- (57) Abstract: The present disclosure provides novel V1a partial agonists for partially activating a V1a receptor. The partial V1a agonist has a therapeutic index of at least 20 (e.g., at least 30, at least 40, at least 50, at least 60, at least 70, at least 80, at least 90, at least 100). Also provided are method of treating liver fibrosis, cirrhosis, portal hypertension, ascites, esophageal varices, fundal varices, bleeding, arterial hypotension, and/or hepatorenal syndrome, including administering to a subject in need thereof a therapeutically effective dose of a composition including the V1a partial agonist(s) of the present disclosure, optionally in combination with a V2 antagonist.

[Continued on next page]

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:

- *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))*