



(51) International Patent Classification:

A61K 31/14 (2006.01) A61K 31/201 (2006.01)
A61K 31/192 (2006.01) A61P 1/16 (2006.01)
A61K 31/194 (2006.01) A61P 3/04 (2006.01)

(21) International Application Number:

PCT/US2021/048537

(22) International Filing Date:

31 August 2021 (31.08.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/073,172 01 September 2020 (01.09.2020) US
63/154,461 26 February 2021 (26.02.2021) US
63/160,575 12 March 2021 (12.03.2021) US

(71) Applicant: **I2O THERAPEUTICS, INC.** [US/US]; 13250
Via Arriba Drive, Saratoga, California 95070 (US).

(72) Inventors: **BROWN, Tyler**; 13250 Via Arriba Drive,
Saratoga, California 95070 (US). **IBSEN, Kelly**; 13250 Via
Arriba Drive, Saratoga, California 95070 (US).

(74) Agent: **UM, Moonkyoung**; Wilson Sonsini Goodrich &
Rosati, 650 Page Mill Road, Palo Alto, California 94304
(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,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

(54) Title: IONIC LIQUID FORMULATIONS FOR TREATING DIABETES

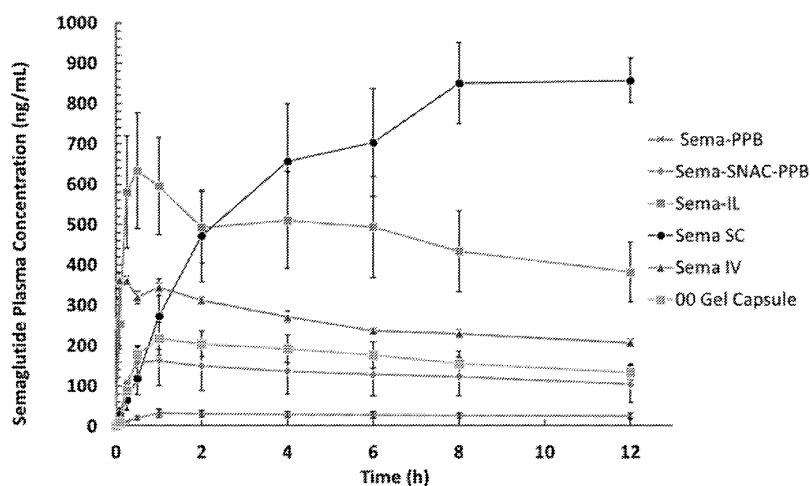


FIG. 18

(57) Abstract: Disclosed herein are ionic liquids and deep eutectic liquids for the treatment of diabetes and related diseases including obesity and metabolic disorders.

[Continued on next page]

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

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))*