



(51) International Patent Classification:

C07K 14/575 (2006.01) A61K 38/26 (2006.01)

C07K 14/605 (2006.01) A61P 31/10 (2006.01)

(21) International Application Number:

PCT/US2022/016406

(22) International Filing Date:

15 February 2022 (15.02.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/149,852 16 February 2021 (16.02.2021) US

(71) Applicant: **INDIANA UNIVERSITY RESEARCH AND TECHNOLOGY CORPORATION** [US/US]; 518 Indiana Avenue, Indianapolis, Indiana 46202 (US).(72) Inventors: **DIMARCHI, Richard**; 10890 Wilmington Drive, Carmel, Indiana 46033 (US). **MROZ, Piotr Andrzej**; 1207 S. Paper Birch Ct., Bloomington, Indiana 47403 (US). **THALLURI, Kishore**; 4303 W. Cherry Orchard Ct., Bloomington, Indiana 47403 (US).(74) Agent: **BREEN, John, P.** et al.; Barnes & Thornburg LLP, 11 South Meridian Street, Indianapolis, Indiana 46204 (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, JM, 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).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

(54) Title: GLUCAGON-LIKE PEPTIDE-1 RECEPTOR ANTAGONISTS

Seq #16 = MBX-1245

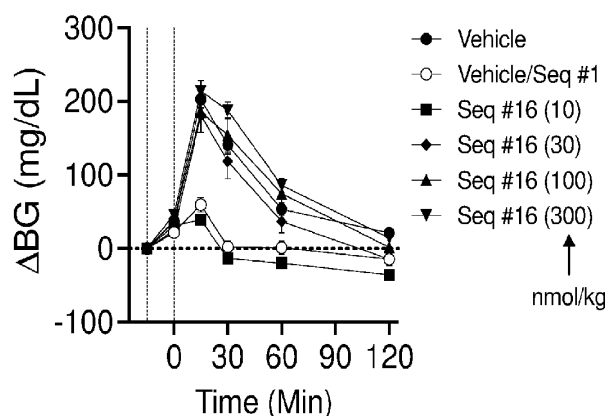


Fig. 1

(57) Abstract: Provided herein are GLP-1 receptor antagonists peptides and pharmaceutical compositions for the treatment of hypoglycemia. Further provided herein are methods of treating atypical hypoglycemia in patients that have become hyperinsulinemic, including those who become hyperinsulinemic after bariatric surgery.

[Continued on next page]

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))*