

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
18 January 2024 (18.01.2024)



(10) International Publication Number
WO 2024/015922 A3

(51) International Patent Classification:

C07K 14/00 (2006.01) A61P 3/00 (2006.01)
C07K 14/575 (2006.01) A61P 3/04 (2006.01)

(21) International Application Number:

PCT/US2023/070152

(22) International Filing Date:

13 July 2023 (13.07.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/389,769 15 July 2022 (15.07.2022) US
63/435,723 28 December 2022 (28.12.2022) US

(71) Applicant: **PEP2TANGO THERAPEUTICS INC.**
[US/US]; 12050 Wetherfield Lane, Potomac, Maryland
20854 (US).

(72) Inventors: **RONDINONE, Cristina Martha**; 12050
Wetherfield Lane, Potomac, Maryland 20854 (US).
GHOSH, Soumitra S.; 12334 Pathos Lane, San Diego,
California 92129 (US). **DANHO, Waleed**; 14249 Mango
Drive, Del Mar, California 92014 (US).

(74) Agent: **FANELLI, Dean L.** et al.; Cooley LLP, 1299 Penn-
sylvania Avenue, NW, 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, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,

KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, 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, CV,
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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))

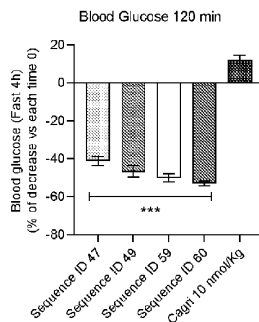
Published:

- 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))

(88) Date of publication of the international search report:

25 April 2024 (25.04.2024)

(54) Title: COMPOSITIONS INCLUDING MULTI-AGONIST PEPTIDES AND METHODS OF MANUFACTURE AND USE



p<0.01; *p<0.001 vs each time 0

FIG. 1A

(57) Abstract: The present invention relates generally to novel multi-agonist peptides useful as agents for the treatment and prevention of metabolic diseases and disorders, for example those which can be alleviated by control of weight loss, plasma glucose and lipid levels, insulin levels, and/or insulin secretion, positive inotropic effects, reduction of catabolic effects, slowing of gastric emptying and preventing neurodegeneration. Such conditions and disorders include, but are not limited to, control of food intake, weight loss, energy metabolism, plasma glucose levels, insulin levels, and/or insulin secretion, positive inotropic effects, reduction of catabolic effects, slowing of gastric emptying, obesity, diabetes and diabetes-related conditions, liver fat-associated inflammation and injury. Such conditions and disorders include, but are not limited to, hypertension, dyslipidemia, cardiovascular disease, eating disorders and rare genetic disorders of obesity such as Prader Willi Syndrome, critical care, insulin-resistance and disorders thereof such as polycystic ovary syndrome, obesity, diabetes mellitus of any kind, including type 1, type 2, and gestational diabetes, and CNS disorders such as preventing neurodegeneration, depression, alcohol addition, Alzheimer's disease and Parkinson's disease, and nonalcoholic steatohepatitis (NASH).