

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
30 May 2024 (30.05.2024)



(10) International Publication Number
WO 2024/112937 A3

(51) International Patent Classification:

A61K 31/712 (2006.01) A61P 35/00 (2006.01)
A61K 31/7125 (2006.01) C12N 15/113 (2010.01)
A61P 3/00 (2006.01)

(21) International Application Number:

PCT/US2023/080992

(22) International Filing Date:

22 November 2023 (22.11.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/427,685 23 November 2022 (23.11.2022) US
63/495,479 11 April 2023 (11.04.2023) US

(71) Applicant: **PRETZEL THERAPEUTICS, INC.**

[US/US]; 1601 Trapelo Road, Suite 154, Waltham, Massachusetts 02451 (US).

(72) Inventors: **SHI, Yonghong**; c/o Pretzel Therapeutics, Inc.,

1601 Trapelo Road, Suite 154, Waltham, Massachusetts 02451 (US). **XIE, Xie**; c/o Pretzel Therapeutics, Inc., 1601 Trapelo Road, Suite 154, Waltham, Massachusetts 02451 (US). **ZHU, Xuefeng**; c/o Pretzel Therapeutics, Inc., 1601 Trapelo Road, Suite 154, Waltham, Massachusetts 02451 (US).

(74) Agent: **DAUKSS, Dana M.** et al.; Choate, Hall & Stewart LLP, Two International Place, Boston, Massachusetts 02110 (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).

(54) Title: COMPOSITIONS AND METHODS FOR TREATMENT OF CANCER AND METABOLIC DISEASE

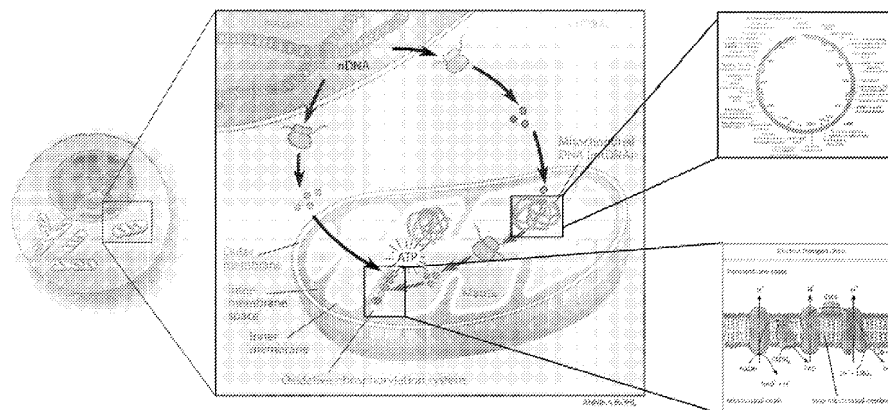


FIG. 1

(57) Abstract: Oligonucleotide compositions and their use in treating various diseases such as cancer and metabolic disorders are described.

[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))*

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

18 July 2024 (18.07.2024)