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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
09 October 2025 (09.10.2025)

WIPO | PCT

(10) International Publication Number
WO 2025/212958 A1

(51) International Patent Classification:
C07H 1/00 (2006.01) *C07H 3/00* (2006.01)
C07H 21/04 (2006.01)

(21) International Application Number:
PCT/US2025/023050

(22) International Filing Date:
03 April 2025 (03.04.2025)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/574,186 03 April 2024 (03.04.2024) US

(71) Applicant: **WAVE LIFE SCIENCES LTD.** [SG/SG]; 7 Straits View #12-00, Marina One East Tower, Singapore 018936 (SG).

(72) Inventors; and
(71) Applicants *(for US only)*: **YU, Hui** [US/US]; c/o WAVE LIFE SCIENCES LTD., 733 Concord Avenue, Cambridge, Massachusetts 02138 (US). **LU, Genliang** [US/US]; c/o WAVE LIFE SCIENCES LTD., 733 Concord Avenue, Cambridge, Massachusetts 02138 (US). **KANDASAMY, Pachamuthu** [US/US]; c/o WAVE LIFE SCIENCES LTD., 733 Concord Avenue, Cambridge, Massachusetts 02138 (US).

(74) Agent: **LI, Xiaodong** 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, UY, 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).

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))*

(54) Title: SUGAR MODIFICATION TECHNOLOGIES

(57) Abstract: Among other tilings, the present disclosure provides technologies for manufacturing sugars, nucleosides, phosphoramidites, oligonucleotides, etc.

WO 2025/212958 A1