



(51) International Patent Classification:

C12N 9/00 (2006.01) A61K 35/74 (2015.01)
C12N 9/10 (2006.01) C12R 1/19 (2006.01)
C07K 14/245 (2006.01)

(21) International Application Number:

PCT/US2021/061579

(22) International Filing Date:

02 December 2021 (02.12.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

63/120,674 02 December 2020 (02.12.2020) US

(71) Applicant: **SYNOLOGIC OPERATING COMPANY, INC.** [US/US]; 301 Binney Street, #402, Cambridge, Massachusetts 02142 (US).

(72) Inventors: **JAMES, Michael**; c/o Synlogic Operating Company, Inc., 301 Binney Street, #402, Cambridge, Massachusetts 02142 (US). **KALANTARI, Aida**; c/o Synlogic Operating Company, Inc., 301 Binney Street, #402, Cambridge, Massachusetts 02142 (US). **MIRABELLA, Tea**; c/o Synlogic Operating Company, Inc., 301 Binney Street, #402, Cambridge, Massachusetts 02142 (US). **RENAUD, Lauren**; c/o Synlogic Operating Company, Inc., 301 Binney Street, #402, Cambridge, Massachusetts 02142 (US). **KRISTENSEN, Lee**; c/o Synlogic Operating Company, Inc., 301 Binney Street, #402, Cambridge, Massachusetts

02142 (US). **ISABELLA, Vincent**; c/o Synlogic Operating Company, Inc., 301 Binney Street, #402, Cambridge, Massachusetts 02142 (US).

(74) Agent: **HEMELGARN, Benjamin** et al.; Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, 901 New York Avenue, NW, Washington, District of Columbia 20001-4413 (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: ENGINEERED MICROORGANISMS

FIG. 1A and 1B

Fig. 1A

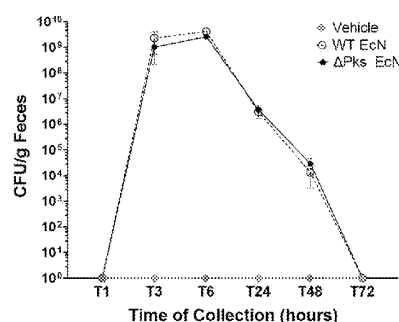
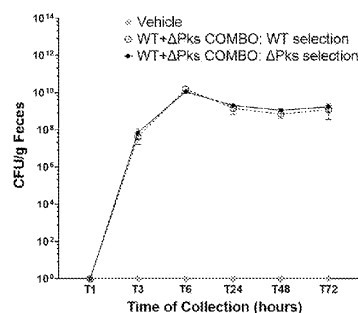


Fig. 1B



(57) Abstract: The present invention relates to engineered microorganisms, wherein the engineered microorganisms comprise a therapeutic molecule and a modified pks island.

[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))*

(88) Date of publication of the international search report:
07 July 2022 (07.07.2022)