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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
16 September 2021 (16.09.2021)

WIPO | PCT

(10) International Publication Number
WO 2021/183701 A1

(51) International Patent Classification:
A61K 35/74 (2015.01)

(21) International Application Number:
PCT/US2021/021790

(22) International Filing Date:
10 March 2021 (10.03.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/987,757 10 March 2020 (10.03.2020) US

(71) Applicant: **FEDERATION BIO INC.** [US/US]; 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US).

(72) Inventors: **SWEM, Lee**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **RICCI, Dante**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **BRUMBAUGH, Ariel R.**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **CREMIN, John**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **HAMILTON, Joshua J.**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **TRIPATHI, Shital**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **WONG, Lauren**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **ROMASKO, Heather**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **BRACKEN, Racquel**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **CONLEY, Emily Drabant**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US). **RUSH, Anthony**; c/o Federation Bio Inc., 280 Utah Avenue, Suite 250, South San Francisco, California 94080 (US).

(74) Agent: **SHUSTER, Michael J.**; Goodwin Procter LLP, 100 Northern Avenue, Boston, Massachusetts 02210 (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.

(54) Title: MICROBIAL CONSORTIA FOR THE TREATMENT OF DISEASE

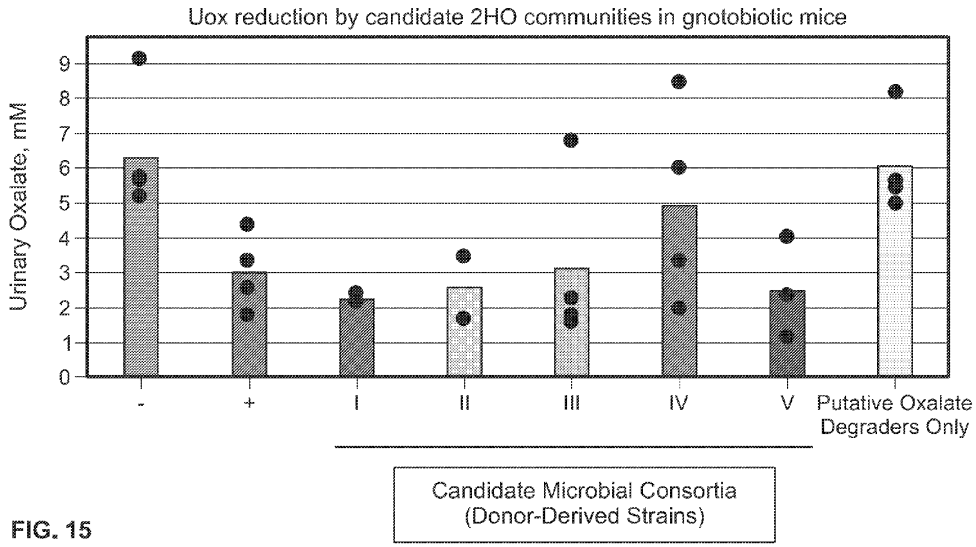


FIG. 15

(57) Abstract: The present invention provides microbial consortia capable of stable engraftment in the gastrointestinal tract of a subject, and degradation of a disease-associated metabolic substrate, and methods of using the same.

[Continued on next page]

WO 2021/183701 A1

(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).

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))*