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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
08 July 2021 (08.07.2021)

WIPO | PCT

(10) International Publication Number
WO 2021/138674 A1

(51) International Patent Classification:
A61K 38/00 (2006.01) *A61P 3/10* (2006.01)
A61K 39/395 (2006.01) *A61P 9/00* (2006.01)
A61K 48/00 (2006.01) *A61P 21/00* (2006.01)
A61P 3/00 (2006.01)

(21) International Application Number:
PCT/US2021/012092

(22) International Filing Date:
04 January 2021 (04.01.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/956,398 02 January 2020 (02.01.2020) US
62/975,913 13 February 2020 (13.02.2020) US

(71) Applicant: **FYBRAWORKS FOODS, INC.** [US/US]; 7400 Oaklawn Ave, Minneapolis, Minnesota 55435 (US).

(72) Inventors: **LU, Chenfeng**; 7400 Oaklawn ave, Edina, Minnesota 55435 (US). **XIA, Huan**; 655 Wellner Road, Naperville, Illinois 60540 (US). **LIU, Wenjie**; 2572 Avalon Woods Dr., Portage, Michigan 49024 (US).

(74) Agent: **BRIGHT, Timothy A.R.**; 20251 Century Blvd Ste 140, Germantown, Maryland 20874 (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: A NOVEL METHOD TO MANUFACTURE SYNTHETIC MEAT

(57) Abstract: The present invention discloses a method to manufacture synthetic meat through recombinant expression of muscle proteins in edible biological hosts. The present invention particularly discloses to a method to manufacture synthetic meat that may overcome the issue of huge consumption of precious water, food and large rural area during the conventional practices of meat production. In addition, the method disclosed in the present invention aids in the significant reduction of animal slaughter.

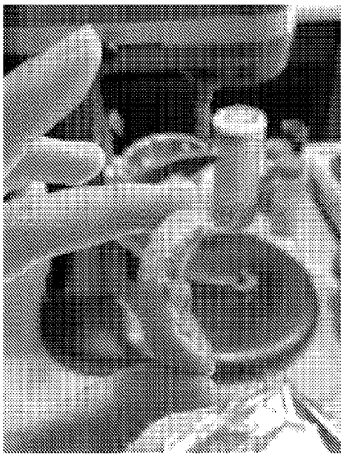


FIG. 1A

WO 2021/138674 A1

[Continued on next page]

Published:
— *with international search report (Art. 21(3))*
— *with sequence listing part of description (Rule 5.2(a))*