



(51) International Patent Classification:

C12M 1/12 (2006.01) A23J 3/00 (2006.01)

(21) International Application Number:

PCT/US2021/037688

(22) International Filing Date:

16 June 2021 (16.06.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(71) Applicant: **UPSIDE FOODS, INC.** [US/US]; 804 Heinz Avenue, Berkeley, California 94710 (US).(72) Inventors: **MULLER-AUFFERMAN, Konrad**; 804 Heinz Avenue, Berkeley, California 94710 (US). **WALKER, Michaela**; 804 Heinz Avenue, Berkeley, California 94710 (US).(74) Agent: **KELLER, Ryan E.**; KELLER PREECE PLLC, 1010 N 500 E, Suite 210, North Salt Lake, Utah 84054 (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: PLANT FAT-BASED SCAFFOLDS FOR THE GROWTH OF CELL-BASED MEATS AND METHODS OF MAKING SUCH PRODUCTS

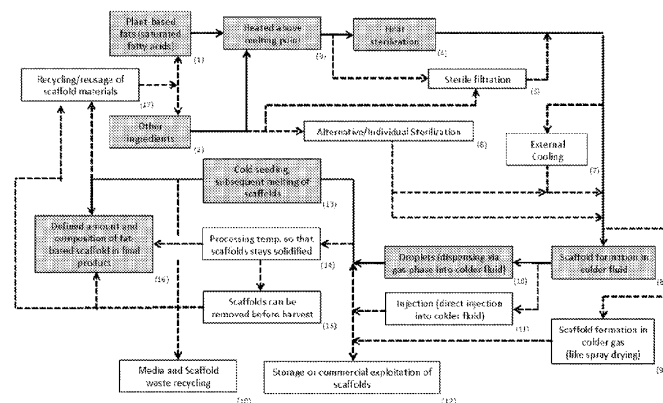


FIGURE 1

(57) **Abstract:** A plant fat-based scaffold for growing cell-based meat products for consumption. The scaffold comprises primarily plant fats or waxes in addition to cell binding proteins and optional additional components that assist in the growth of cultivated animal cells. The scaffold can exist in both a liquified state during sterilization and a solid state during the formation of the scaffold, the seeding of the cultivated cells, and the cellular growth phase. The scaffold is capable of remaining in the final product for consumption or is partially or completely melted out of the final product and recycled into raw material for forming new scaffolds.

[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))*