



(51) International Patent Classification:

A23D 9/00 (2006.01) C11B 5/00 (2006.01)

(21) International Application Number:

PCT/US2011/038464

(22) International Filing Date:

27 May 2011 (27.05.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/349,774	28 May 2010 (28.05.2010)	US
61/374,992	18 August 2010 (18.08.2010)	US
61/414,393	16 November 2010 (16.11.2010)	US
61/428,192	29 December 2010 (29.12.2010)	US

(71) Applicant (for all designated States except US): **SO-LAZYME, INC.** [US/US]; 225 Gateway Boulevard, South San Francisco, California 94080 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **FRANKLIN, Scott** [US/US]; 225 Gateway Boulevard, South San Francisco, California 94080 (US). **SOMANCHI, Aravind** [IN/US]; 225 Gateway Boulevard, South San Francisco, California 94080 (US). **WEE, Janice** [US/US]; 225 Gateway Boule-

vard, South San Francisco, California 94080 (US). **RUDENKO, George** [UA/US]; 225 Gateway Boulevard, South San Francisco, California 94080 (US). **MOSELEY, Jeffrey L** [BB/US]; 225 Gateway Boulevard, South San Francisco, California 94080 (US). **RAKITSKY, Walt** [US/US]; 225 Gateway Boulevard, South San Francisco, California 94080 (US).

(74) Agents: **TERMES, Lance A.** et al.; Alston & Bird LLP, Bank of America Plaza Suite 4000 101 South Tryon Street, Charlotte, North Carolina 28280-4000 (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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,

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(54) Title: FOOD COMPOSITIONS COMPRISING TAILORED OILS

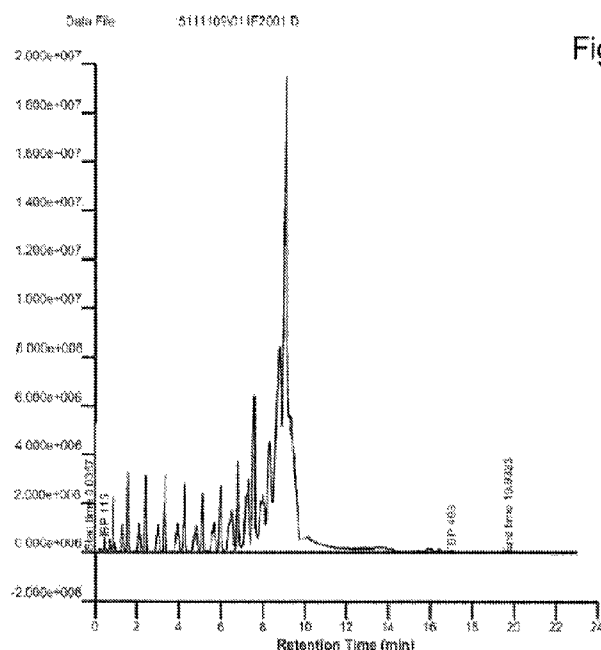


Figure 1

(57) Abstract: Methods and compositions for the production of food compositions, oils, fuels, oleochemicals, and other compounds in recombinant microorganisms are provided, including oil-bearing microorganisms and methods of low cost cultivation of such microorganisms. Microalgal cells containing exogenous genes encoding, for example, a lipase, a sucrose transporter, a sucrose invertase, a fructokinase, a polysaccharide-degrading enzyme, a keto acyl-ACP synthase enzyme, a fatty acyl-ACP thioesterase, a fatty acyl-CoA/aldehyde reductase, a fatty acyl-CoA reductase, a fatty aldehyde reductase, a fatty aldehyde decarbonylase, and/or an acyl carrier protein are useful in manufacturing food compositions, and transportation fuels such as renewable diesel, biodiesel, and renewable jet fuel, as well as oleochemicals such as functional fluids, surfactants, soaps and lubricants.



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, 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))*