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- (71) Applicant: SOLAZYME, INC. [US/US]; 225 Gateway Boulevard, South San Francisco, California 94080 (US).
- (72) Inventors: FRANKLIN, Scott; 225 Gateway Boulevard, South San Francisco, California 94080 (US). SOMANCHI, Aravind; 225 Gateway Boulevard, South San Francisco, California 94080 (US). RUDENKO, George; 225 Gateway Boulevard, South San Francisco, California

94080 (US). BHAT, Riyaz; 225 Gateway Boulevard, South San Francisco, California 94080 (US). ZHAO, Xinhua; 225 Gateway Boulevard, South San Francisco, California 94080 (US). BOND, Risha; 225 Gateway Boulevard, South San Francisco, California 94080 (US). RAKITSKY, Walter; 225 Gateway Boulevard, South San Francisco, California 94080 (US). MARANGONI, Alejandro; 225 Gateway Boulevard, South San Francisco, California 94080 (US). BRAKSMAYER, Diza; 225 Gateway Boulevard, South San Francisco, California 94080 (US).

(74) Agents: TERMES, Lance et al.; Alston & Bird LLP, 100 South Tyron Street, Bank of America Plaza, Suite 4000, Charlotte, North Carolina 28280-4000 (US).

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[Continued on next page]

(54) Title: TAILORED OILS

High-Stability Oleic Algal Oil

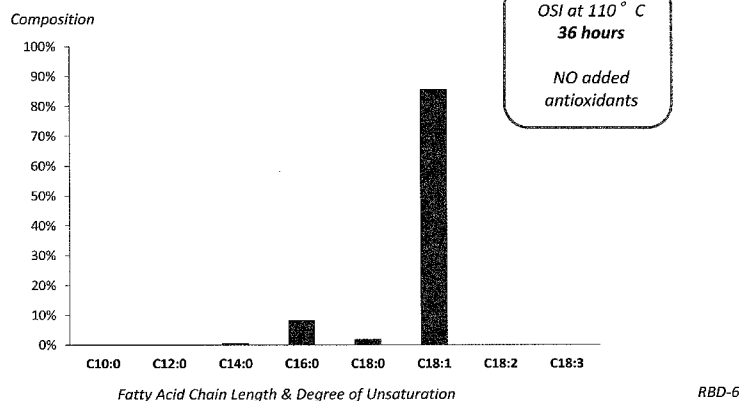


Figure 11

(57) Abstract: Recombinant DNA techniques are used to produce oleaginous recombinant cells that produce triglyceride oils having desired fatty acid profiles and regiospecific or stereospecific profiles. Genes manipulated include those encoding stearoyl-ACP desaturase, delta 12 fatty acid desaturase, acyl-ACP thioesterase, ketoacyl-ACP synthase, and lysophosphatidic acid acyltransferase. The oil produced can have enhanced oxidative or thermal stability, or can be useful as a frying oil, shortening, roll-in shortening, tempering fat, cocoa butter replacement, as a lubricant, or as a feedstock for various chemical processes. The fatty acid profile can be enriched in midchain profiles or the oil can be enriched in triglycerides of the saturated-unsaturated-saturated type.



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