

PRESS RELEASE

Cellectis plant sciences reports improvement of oil content in algae

New Brighton (Minnesota, USA), May 29, 2014 – Cellectis plant sciences, the plant genome engineering company, today announced the publication in Nature Communications the development of algae strains with improved and increased oil content.

Diatoms are among the world's most important microalgae, both in terms of diversity and relevance for biotechnological applications. Triacyglycerol (TAG), naturally produced by diatoms, is a key precursor for the biofuel and chemical industries. Identifying methods to increase the yield of key intermediates remains an important target for the biotechnical improvement of strains and processes.

In this report, Dr. Fayza Daboussi and collaborators developed enhanced lipidproducing strains with an increase in triacylglycerol content by the targeted and stable modifications to the genome of the marine diatom *Phaeodactylum tricornutum*.

"We are very proud of the success of our team that further demonstrates the efficiency and uniqueness of our genome editing platform", said Luc Mathis, CEO of Cellectis plant sciences. "The implementation of this innovation for large scale oil production will require long term investment in process development. Our focus remains the development of healthier food products in potato, soybean, canola and other crops, and we are enthusiastic to make this technology available to potential partners".

References: Nature Communications

Genome engineering empowers the diatom Phaeodactylum tricornutum for biotechnology

Fayza Daboussi, Sophie Leduc, Alan Maréchal, Gwendoline Dubois, Valérie Guyot, Christophe Perez-Michaut, Alberto Amato, Angela Falciatore, Alexandre Juillerat, Marine Beurdeley, Daniel F. Voytas, Laurent Cavarec, Philippe Duchateau

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About Cellectis plant sciences, the world leader in plant gene editing

Founded in 2010, Cellectis plant sciences is based in New Brighton, Minnesota (United States). The company has developed a platform to improve the agronomic value and quality of crops for the food and agriculture industries. Cellectis plant sciences is involved in a network of collaborations that include global seed companies (Bayer, Limagrain, Monsanto, SESVanderhave among others), as well as leading Healthcare (Mitsubishi Tanabe) and food companies. Cellectis plant sciences is developing innovative products with prominent partners in order to secure access to the market.

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