



## Press Release

*For Release on July 27, 2009*

### **Targeted Growth Unlocks Pathways to Dramatically Increase Algae Oil Content**

*Breakthrough could reduce cost for algal fuel production*

**SEATTLE (July 27, 2009)** Bioscience firm [Targeted Growth](#) (TGI) today announced it has developed a way to increase the lipid content of cyanobacteria by approximately 400 percent. This discovery will dramatically increase the oil yield per acre, decreasing the cost of algae production and helping algae-based biofuels become price-competitive with petroleum.

During the past four years the entire genome of cyanobacteria has been sequenced by researchers. TGI molecular biologists and their collaborators have identified and tested every active gene and made major breakthroughs in both adding new genes and manipulating their functions to create a high oil-yielding algae strain. The company has filed multiple patent applications on these innovations.

“There’s no way that algae are sustainable as a feedstock for fuel or energy unless you can dramatically increase the yield per acre and optimize the strain for use as an energy source,” said Tom Todaro, CEO of Targeted Growth. “Any type of modification requires intricate understanding of and experience with molecular biology as well as significant testing. Our decade of working at the molecular level on other photosynthetic organisms has given us a significant advantage in working with cyanobacteria.”

In addition to developing algae strains for use as a feedstock for conventional diesel, TGI is also testing algae’s ability to be converted to biojet fuel through a partnership with refining technology developer UOP LLC, a Honeywell company. UOP’s renewable jet fuel process technology has produced renewable fuels from various oil-based feedstocks, including algae, for use in three separate airplane test flights in the past year.

Targeted Growth’s expansion into algae is a natural extension of the company’s legacy of deep experience and success in agricultural bioscience. Since 1998, the company has leveraged both genetic and traditional agricultural methods to help solve some of the world’s most pressing issues related to the use of agriculture for both food and fuel.

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Its initial breakthrough came in the field of yield enhancement, when its scientists discovered a way to produce double-digit yield increases in certain row crops through regulating the cell division cycle. The company has since licensed this technology to a major seed company. In 2007, the company introduced a non-transgenic version of camelina sativa, an oilseed crop that grows in rotation with wheat. In January, 2009 a Japan Airlines Boeing 747 conducted a test flight powered in part by camelina oil processed into bio-jet fuel by UOP, a Honeywell Company.

**About Targeted Growth, Inc.**

Targeted Growth, Inc. was founded in 1999 with a goal of developing technologies that would increase the productivity of existing farmland and create new crops for use on land otherwise unsuitable for agriculture. Today, Targeted Growth is a global leader in bioscience, having developed technologies that both increase seed size and yield in major crops. It has also developed a line of dedicated energy crops, including camelina and sugarcorn, as well as a non-agricultural feedstock – cyanobacteria algae for biomass. The company has strategic partnerships with leading researchers and agribusinesses around the world. Targeted Growth is based in Seattle, Wash., with labs in Seattle, Saskatchewan, Ottawa and New Brunswick. More information is available at [www.targetedgrowth.com](http://www.targetedgrowth.com).