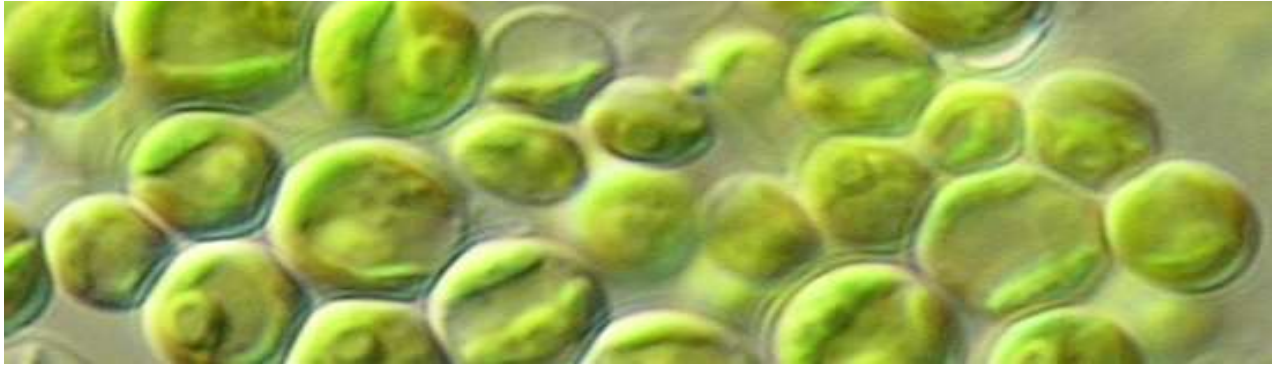


# Improving lipids productivity in unicellular algae



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## Description of the invention

A new strategy to improve the ability of unicellular algae to accumulate lipids and in particular Triacylglycerol. This permits a significant improvement in the yield of algae industrial cultures.

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## Which Need does it respond to?

Algae biomass has variable composition in lipids, protein and carbohydrates. The precise composition depends from the growing conditions which, however, are difficult to control in industrial cultivation systems. For instance Lipid accumulation is normally induced by nutrients starvation, a treatment that on the other side limits biomass productivity. This invention allows increasing the accumulation of lipids while maintaining biomass accumulation, and, in the end, it improves overall productivity.

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## Field of Application and Market Size

Algae biomass is receiving a growing interest for application in many fields. The Algae market encompasses the segments of nutraceuticals (e.g. source of omega-3 fatty acids, pigments, antioxidants), aquaculture and biofuel production.

The ability to increase lipids yield opens the possibility of increasing productivity in all of these applications.

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## Commercialization and Advancement Status

The invention is the subject of an Italian priority patent application. We are seeking industrial partners to support commercialization of the technology as well as other algae applications.

### **Titolarietà del brevetto**

Università di Padova

### **Inventori Proponenti**

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### **Status del brevetto**

Domanda di brevetto italiano depositato  
23/12/ 2015

### **Disponibilità alla licenza**

Italiana

### **Categoria Industriale**

Agrifood

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