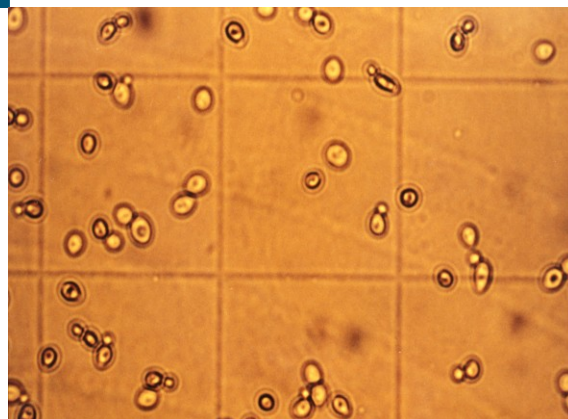


## Biotechnology/Oleochemistry - Fatty acids synthesis process

### Description

Fermentation Advances and Microbial Engineering team (EAD8 team) from LISBP, Mixed Research Unity from INRA, INSA Toulouse and CNRS has developed a fatty acids synthesis process by oleaginous microorganism. This process is characterized in that the culture is carried out in the presence of an inhibitor of fatty acid synthase in the medium and under control of different nutritional inputs needed for growth microorganisms and the synthesis of fatty acids.



### Type of expected transfer

License on patent or license option with R&D validation program.

### Advantages

Maintenance of growth dynamics and lipid synthesis  
Fatty Acid accumulation by partial inhibition of the metabolism of the microorganism  
Control of the modulation of the fatty acid profile

Using a wild strain

### Possible applications

Oleochemistry: cosmetics, fine chemistry

Pharmaceuticals / health

Food industry and nutrition,

Energy: biofuel

### Key words

fatty acids, C11-C15, lipids, microorganisms, fermentation line, control of nutritional inputs

### TRL Scale



### Development level

Works have been realized in a 20L bioreactor, aimed fatty acid profile is between C12 and C14. A co-development project could be interesting to precize a target.

### Laboratories:

LISBP, UMR INRA/INSA Toulouse/CNRS

### Researchers:

Stéphane Guillouet Professor INSA FAME team  
Responsible

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