

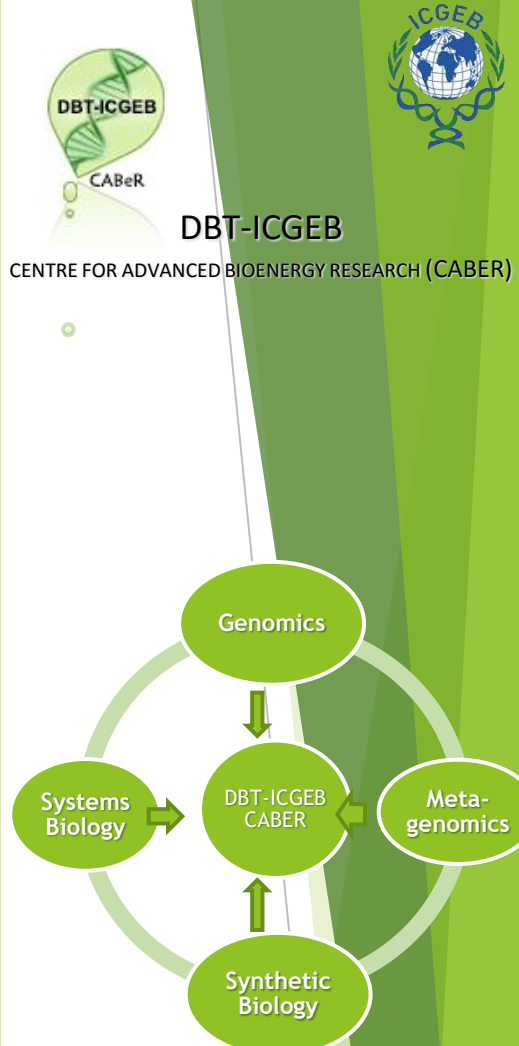
# Focal Point & the Purpose of Innovation

## METHOD FOR ENHANCED FATTY ALCOHOL PRODUCTION IN *E. coli*

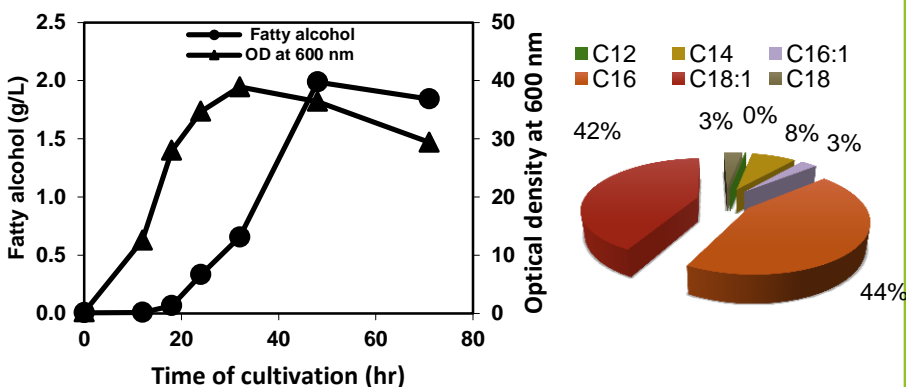
Long chain fatty alcohols have wide application in chemical industries and transportation sector. Long chain fatty alcohols are oleochemicals widely used in making plasticizers, lubricants, detergents, personal care products, emulsifiers and antioxidants. They also have potential to be used as promising biofuel candidates by being added as oxygenates in gasoline or by totally replacing gasoline.

The various existing processes are not suitable for large scale production with high purity, quality and reproducibility. These are not very cost effective. Hence, there is a need to develop a novel industrially viable process for large scale alcohol production with high yield. Hence, the present invention provides a novel method for the large scale production of long chain fatty alcohols through fermentation technology using the selective enzymes and biotransformation technology in *E. coli*.

The present invention relates to the method of production of long chain fatty alcohol with high yield. The present invention relates to an engineered strain for improved alcohol production of at least 2 g/L in a bioreactor.



## Graphical Description



**Figure :** Fed-batch cultivation for fatty alcohol production.  
(A) Cultivation profile of fed-batch cultivation and  
(B) Distribution of chain length in total fatty alcohol produced

## Exploitable Technology

The lab scale fermentation technology is now ready to be upscaled industrially.

## Reference for the Invention

Provisional Patent Application filed - 4260/DEL/2015

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