

## Metabolic engineering for recombinant protein production

In a research project of Biochemical Reaction Engn & Industrial Biotechnology and Metabolic Engn Labs (at ChE, METU) aiming to increase a pharmaceutical recombinant protein production, we engineered several transcription factors (TFs). One of them, indeed interesting, an engineered TF shifts flow of molecules in the intracellular reaction network towards production of the industrial molecule ethanol, instead of the pharmaceutical recombinant protein production, was studied in cooperation with BOKU, Vienna.

### Statement for Broader Audience

Enzyme-catalyzed reactions -which convert reactants into product with 100% selectivity in the intracellular reaction network- is started on the genome in the cell by the transcription of the related gene encoding enzyme of the reaction, by binding of the transcription factor (inducer molecule) on the promoter of the enzyme.

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