

CASCAT GmbH

CASCAT, a spin-off of the Technical University of Munich, is a young and innovative start-up company in the field of industrial biotechnology founded in 2014.

The expertise of CASCAT is to combine the advantages of the two worlds: synthetic biotechnology and classical chemical catalysis. That's how CASCAT realizes more cost-efficient novel process routes. By avoiding fermentation processes no genetically modified organisms are used during chemical production. Thus, downstream processing is massively simplified and higher substrate and product concentrations can be obtained compared to traditional biotechnological fermentative approaches. Optimization of the enzymes applied, guarantees a high life time and activity especially in the presence of their chemical counterparts within the catalytic cascade. The use of promiscuous catalysts enables short process routes and reduces the quantities of cost intensive co-factors, thus lowering production costs.

At present, based on CASCAT's own IP portfolio, the process and product pipeline consists of target molecules based on a C₂-C₉ carbon backbone. This includes simple achiral bulk molecules like 1,4-butanediol and succinic acid as well as chiral amino acids and amino acid derivatives. Additionally, several pharmaceutical intermediates necessary for production of APIs are included.