Vortragsankündigung
- im Rahmen des UniCat-Kolloquiums -
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Es spricht: **Prof. Dr. Peter Neubauer,** TU Berlin, Department of Biotechnology, Bioprocess Technology

Zeit: **Donnerstag, 07. Mai 2009   13:00 Uhr**

Ort: **TU Berlin, Institut für Physikalische Chemie, Straße des 17. Juni 134, 10623 Berlin Raum PC 203**

Thema: **EnBase™ – Scalable high-cell-density fermentation platform for high-throughput and high-content screening of biocatalysts**

Abstract: EnBase or enzyme based substrate delivery is a fed-batch like technology which had been developed for shaken systems, e.g. 96-well and deep well plates.[1] The very robust technology allows a controlled growth of cells to high cell densities, just like in a bioreactor and the growth rate is simply controlled by the amount of an initially added biocatalyst. Yields of cells and products are at least 10-fold increased which makes EnBase an enabling technology for high throughput approaches, such as screening of enzyme or phage display libraries, small scale production of proteins and for DNA production, as will be demonstrated in the talk. As EnBase is a fed-batch process, process optimization is possible with multi well plates and a direct scale-up into the bioreactor, which significantly reduces the time of process development. Recently we have shown that even pilot scale bioreactor processes can be highly simplified by the use of EnBase.

The BVT group will apply and exploit EnBase as a tool for process development in the area of biocatalysis. Aside for applying the technology for development of own targets, e.g. new enzymes for nucleoside chemistry, we are highly interested in offering our competences in HT protein production and bioprocess scale up to other groups in the UNICAT network.

[1]*Panula-Perälä et al. 2008. Enzyme controlled glucose auto-delivery for high cell density cultivations in microplates and shake flasks. Microb Cell Fact 7:31. www.microbialcellfactories.com/content/7/1/31*

Organisator: Prof. Dr. Süßmuth (TUB)

Gäste sind herzlich willkommen!

Prof. Dr. Matthias Drieß
Sprecher des Exzellenz-Clusters UniCat