

# Special UniCat Colloquium

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Lecturer: **Prof. Dr.-Ing. Vera Meyer**, Department of Applied and Molecular Microbiology, Institut for Biotechnology, Technische Universität Berlin:

Title: ***Aspergillus niger:  
a cell factory with unlimited prospects***

Abstract: The genus *Aspergillus* covers a diverse group of filamentous fungi including industrially important species like *A. niger*, *A. oryzae*, *A. awamori*, *A. sojae* and *A. terreus*. Species of this genus have been exploited in large scale industrial production processes for almost 100 years. As microbial cell factories, filamentous fungi are outstanding with respect to their tolerance of extreme cultivation conditions, their ability to grow on plant biomass, their high secretion capacities and versatile secondary metabolism. The array of *Aspergillus* products includes bulk chemicals, enzymes for food and feed processing, homologous and recombinant proteins as well as bioactive secondary metabolites.

My talk aims at providing an overview of the advances made during the last years to further establish and improve *A. niger* as industrial production platform. It starts with a description of the molecular genetics toolbox that has been developed for rational strain improvement, followed by various genetic and cultivation strategies that have been applied to improve production of heterologous proteins and secondary metabolites. The second part of my talk highlights recent transcriptomics studies on *A. niger* which uncovered the core set of genes whose expression is key to ensure high protein fluxes through the secretory pathway and hence high protein production rates. Finally, future challenges and prospects for *Aspergillus* as a cell factory will be discussed.

Find out more on Prof. Meyer on:

[http://www.mikrobiologie.tu-berlin.de/menue/cv\\_prof\\_vera\\_meyer/parameter/en/](http://www.mikrobiologie.tu-berlin.de/menue/cv_prof_vera_meyer/parameter/en/)

Date: **Wednesday, January 8<sup>th</sup>, 2014**

Time: **5:15 pm**

Location: **TU Berlin, Department of Chemistry,  
Straße des 17. Juni 115, 10623 Berlin,  
C Building, Lecture Hall C 264**

Organizer: **Prof. Roderich Süßmuth (TUB)**

Coffee and tea will be served thirty minutes prior to the lecture start.  
**Guests are cordially invited to attend!**

Prof. Dr. Matthias Driess, Chair of the Cluster of Excellence UniCat