

Programm for the Conference "Enzymes in Lipid Modification", Greifswald

Wednesday, March 26th

18.00-19.00: Registration

19.00-20.30: Welcome Reception

Thursday, March 27th

8.00-8.30: Registration

8.30-8.35 Opening remarks (U. Bornscheuer)

Hydrolases in Lipid Modification

Morning session, topic: "Lipases"

Chair persons: G. Daum, P. Adlercreutz

8.35-9.30 Keynote Lecture I

J. Pleiss (Stuttgart University, Stuttgart, Germany): "From sequence to function: Understanding specificity and selectivity of lipases"

9.30-10.30 *Session I "Lipases – Screening and Design "*

9.30-10.00 T. Eggert (KFA Jülich, Jülich, Germany): "Directed evolution of an enantioselective lipase from *Bacillus subtilis*"

10.00-10.30 F. Carriere (CNRS, Marseille, France): "The C-terminal domain of pancreatic lipase: Functional and structural analogies with C2 lipid-binding domains"

10.30-11.00 Coffee break

11.00-12.30 *Session II "Lipases – Applications"*

11.00-11.30 G. Hills (Degussa AG, Hanau, Germany): "Industrial scale production of esters using lipases"

11.30-12.00 M. Rüschen gen. Klaas (University of Applied Science, Neubrandenburg, Germany): "Lipase-catalyzed reactive extraction of oilseeds with dialkyl carbonates"

12.00-12.30 "T. K. Yang (Technical University, Lyngby, Denmark) "Application of immobilized *Thermomyces lanuginosa* lipase in interesterification"

12.30-13.30 Lunch (a range of restaurants can be found close to the conference location)

- 13.30-15.00 *Session III "Lipases – Applications"*
- 13.30-14.00 N. Weber (Federal Research Institute, Münster, Germany): "Phytosteryl esters as cholesterol-reducing food additives by lipase catalysis"
- 14.00-14.30 D. Pirozzi (Napoli, Italy) "Improvement of the lipase stability in the presence of commercial triglycerides"
- 14.30-15.00 M. Heinemann (Aachen, Germany): "New insights in lipase-catalyzed esterifications achieved by systematic mathematical modeling"
- 15.00-16.00 Coffee break and poster session

Afternoon session, topic: "Phospholipases"

Chair person: C. Syldatk

- 16.00-17.00 Keynote lecture II
P. Adlercreutz (Lund University, Lund, Sweden): "Glycerophospholipid conversions catalysed by phospholipases and lipases"
- 17.00-17.30 R. Ulbrich-Hoffmann (Halle University, Halle, Germany): "Optimization of enzymatic phospholipid modification by methods of experimental design"
- 17.30-18.00 M. Egmond (Utrecht University, Utrecht, Belgium): Mutagenesis studies of *Staphylococcal* lipases"
- 19.00 Bus transfer to the fisher village Wieck (close to Greifswald)
- 20.00 Buffet Dinner at Restaurant "Utkiek", Wieck (registration required)

Friday, March 28th

Whole-Cell Systems / Engineering Aspects

Morning session, topic: "Whole-Cell Systems"

Chair persons: M. Egmond, J. Eck

- 8.30-9.30 Keynote lecture III
J. Ogawa (Kyoto University, Kyoto, Japan): "Lactic acid bacteria as catalysts for conjugated fatty acid production"
- 9.30-10.00 A. Steinbüchel (Münster University, Münster, Germany): "Lipid accumulation and structure of lipid inclusions in prokaryotic microorganisms"
- 10.00-10.30 G. Daum (Technical University, Graz, Austria): "Triacylglycerol metabolism in the yeast *Saccharomyces cerevisiae*"
- 10.30-11.00 Coffee break
- 11.00-11.30 H. Diehl, Bremen (University): "Competitive incorporation of carotenoids and cholesterol into membranes"

- 11.30-12.00 C. Syldatk, Stuttgart (Stuttgart University, Stuttgart, Germany):
"Investigations on the development of an integrated microbial and enzymatic process (IMEP) for the production of rhamnolipids, L-(+)-rhamnose and β -hydroxydecanoic acid"
- 12.00-12.30 H.J. Heipieper (Leipzig, Germany): „The cis – trans isomerase (cti) of unsaturated fatty acids in the bacterium *Pseudomonas putida*“
- 12.30-13.30 Lunch

Afternoon session, topic: "Engineering Aspects"

Chair person: J. Ogawa

- 13.30-14.00 J. Eck (B.R.A.I.N. AG, Zwingenberg, Germany): "Novel enzymes for biocatalytic applications: Enzyme libraries as a blueprint of functional sequence space"
- 14.00-14.30 U. Schwaneberg, Bremen (International University Bremen, Bremen, Germany): "Laboratory evolution of monooxygenases for industrial applications"
- 14.30-14.45 Closing remarks (U. Bornscheuer)