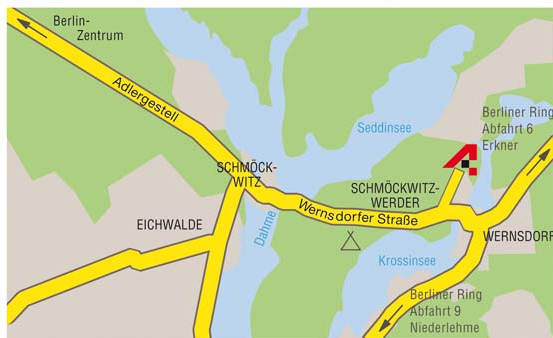


Travel

Berlin-Schmöckwitz is accessible by rail, car or air. Further information is given at <http://www.akademie-schmoeckwitz.de/Lage.5.0.html>. About three to four weeks prior to the course registered participants will receive detailed travel information.



Information for Participants

Venue and Accommodation

Akademie Berlin-Schmöckwitz
Wernsdorfer Straße 43
12527 Berlin, Germany

Schedule

Beginning: Monday, 20 July 2009, 1 pm
End: Friday, 24 July 2009, 1 pm

Language

The course will be held in English.

Registration

Please complete and return the enclosed form or contact:

DECHEMA e.V.
Training dept.
P.O. Box 15 01 04
D-60061 Frankfurt am Main

Phone: +49 69 7564 253
Fax: +49 69 7564 414
Internet: <http://kwi.dechema.de/ctp.html>
E-mail: gruss@dechema.de

Registration fee:

Industry:
€ 1,875.-- (single room/person)
University:
€ 1,375.-- (single room/person)
PhD and other students:
€ 1,225.-- (single room/person)
(incl. accommodation, board, course materials,
soft drinks and VAT)

Deadline: 31 May 2009

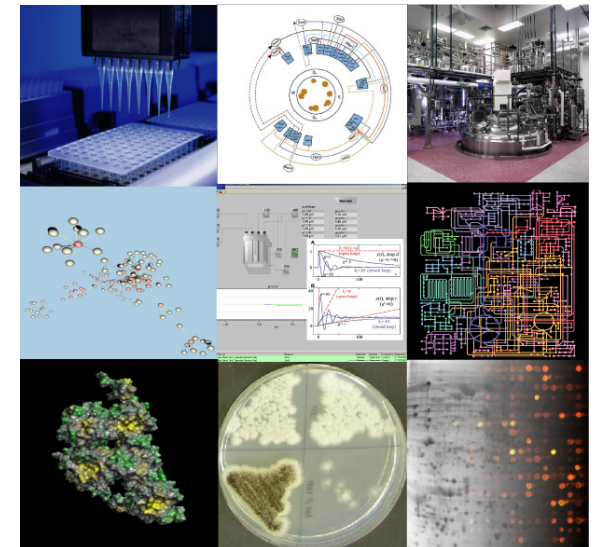
DECHEMA
Society for Chemical Engineering and
Biotechnology e.V.

Summer School
20-24 July 2009

New

Quantitative Biology: From Cell to Process

Academy Berlin-Schmöckwitz
Germany



Quantitative Biology: From Cell to Process

Modern biology follows the trends in the chemical and physical sciences to use quantitative mathematical models for the description of complex cellular behavior. Concepts from molecular and systems biology, process engineering, and economy will have to be combined for the development of efficient biotechnological processes. To enable biotechnologists, bioengineers and biologists to pursue this interdisciplinary challenge, it is mandatory to strengthen both the mathematical skills and the basic concepts of biological systems. Thus, the Young Biotechnology Researchers Network of the Society for Chemical Engineering and Biotechnology DECHEMA, consisting of young experts from Germany, Belgium, The Netherlands, Switzerland and UK, devised a summer school schedule that would allow participants to familiarize themselves with relevant biological concepts, mathematical modeling strategies and appropriate (software) tools.

The course consists of formal lectures and tutorials for hands-on experience with state-of-the-art tools.

Participants are encouraged to bring their laptop computers.

Lecturers

Dr.-Ing. L.M. Blank, TU Dortmund, D (LB)
Prof. Dr. E. Boles, University Frankfurt, D (EB)
T. Brinkmann, ifu Hamburg GmbH, D (TB)
Dr.-Ing. A. Drews, University of Oxford, UK (AD)
Dr.-Ing. P. Först, TU München, D (PF)
Dr. C. Freund, FMP, Berlin, D (CF)
Dr. B. Junker, Leibniz IPK Gatersleben, D (BJ)
Dr.-Ing. V. Meyer, Leiden University, NL (VM)
Dr. E. Nevoigt, K.U. Leuven, B (EN)
Dr. M. Oldiges, FZ Jülich, D (MO)
Dr. A. Schaper, fuel 21. GmbH & Co. KG, D (Asch)
Dr. A. Schmitz, Bayer Schering Pharma, D (AS)
Dr. D. Schwarzer, FMP, Berlin, D (DS)
Dr.-Ing. A. Spiess, RWTH Aachen, D (ASp)
Dr. B. Usadel, MPI Golm, D (BU)
Dr. W. Weber, ETH Zurich, CH (WW)



Programme

Monday, 20 July

- Production of bio alcohols (EB)
- Principles of balancing (AD)
- Stoichiometric models (LB)

Tuesday, 21 July

- Strategies of fermentation (PF, AD)
- Rheology, fluid dynamics and CFD (PF, AD)
- Biological data and statistics (AS)

Wednesday, 22 July

- Non linear models and experiment design: enzyme reactions (ASp)
- Principles of metabolomics (MO, BJ)
- Flux analyses (MO, BJ)
- Microbial strain optimization and redox balances (EN)

Thursday, 23 July

- Transcript analyses and causal models (BU, VM)
- Quantitative proteomics analyses (CF, DS, BU)
- Synthetic biology: from BioBricks to synthetic gene networks (WW)

Friday, 24 July

- Economy: process models (ASp, LB)
- Sustainability: ecological balances (TB)
- Development of industrial bioprocess (ASch)

Reply form
(Fax-No.: +49 69 7564-414)

DECHEMA e.V.
Training dept.
P.O. Box 15 01 04
D-60061 Frankfurt am Main

Registration to the DECHEMA course 7158

QBio

"Quantitative Biology: From Cell to Process" in Berlin-Schmöckwitz, 20-24 July 2009
Deadline for registration: 31 May 2009

Participant

Mr Mrs Name.....
Surname.....
Title.....Dept.....
Tel./Fax.....E-mail.....

Invoice address

Company.....
Dept.....
Street.....
Code/Place.....

Industry University Student *

* Please attach proof.

Education: PhD Master Bachelor Other

Field: Chemist Biologist Engineer Other

I am interested in the following research fields:

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The course fee amounts to €1,875.- (industry), €1,375.- (university), €1,225.- (PhD and other students). Please do not transfer the fee before having received the final confirmation of participation by DECHEMA. If we receive a notice of withdrawal at least two weeks prior to the beginning of the course, the participation fee less 10% for administration expenses will be reimbursed. Thereafter, a reimbursement will not be possible.

.....
(Date, signature + company stamp)