



GENERAL INFORMATION

VENUE

TU Berlin
 Innovationszentrum Technologien für Gesundheit und Ernährung IGE
 Müller-Breslau-Straße 15 (VWS 4)
 Room VWS 128
 10623 Berlin, Germany



SCHEDULE

Beginning: Monday, 16 July 2012, 1 pm

End: Friday, 20 July 2012, 3 pm

LANGUAGE

The course will be held in English.

REGISTRATION

Please complete and return the enclosed form or contact:

DECHEMA Research Institute
 Training dept.
 P.O. Box 17 03 52
 D-60077 Frankfurt am Main

Phone: +49 69 7564 253
 Fax: +49 69 7564 414
 Internet: www.qbio-summerschool.de
 E-mail: gruss@dechema.de

REGISTRATION FEE

PhD and other students: € 575,-

University: € 690,-

Industry: € 850,-

(incl. course materials, lunch, snacks, coffee breaks and VAT)

DEADLINE

11 June 2012

ACCOMMODATION

Hotel Gates Novum
 Knesebeckstr. 8-9
 10623 Berlin
 Phone: +49 30 311 06 0
 Fax: +49 30 312 20 60
 E-mail: info@hotel-gates.de
 Internet: www.novum-hotels.de
 Single room: € 74 per night incl. breakfast
 Code: Q-Bio Summer School, deadline: 15 June 2012

Hotel Heidelberg Berlin
 Knesebeckstr. 15
 10623 Berlin
 Phone: +49 30 313 01 03
 Fax: +49 30 313 58 70
 E-mail: info@hotel-heidelberg-berlin.de
 Internet: www.hotel-heidelberg-berlin.de
 Single room: € 55 per night excl. breakfast
 Code: Q-Bio Summer School, deadline: 15 June 2012

A&O Berlin am Zoo
 Joachimstaler Str. 1-3
 10623 Berlin
 Phone: +49 30 80947 5110
 Fax: +49 30 80947 5190
 E-mail: booking@aohostels.com
 Internet: www.aohostels.com
 Single room: € 48,06 per night incl. breakfast
 Code: B2-2-9298, deadline: 20 May 2012

The prices might differ slightly.

Please contact the hotels directly to book a room mentioning the respective code.

SPONSORS

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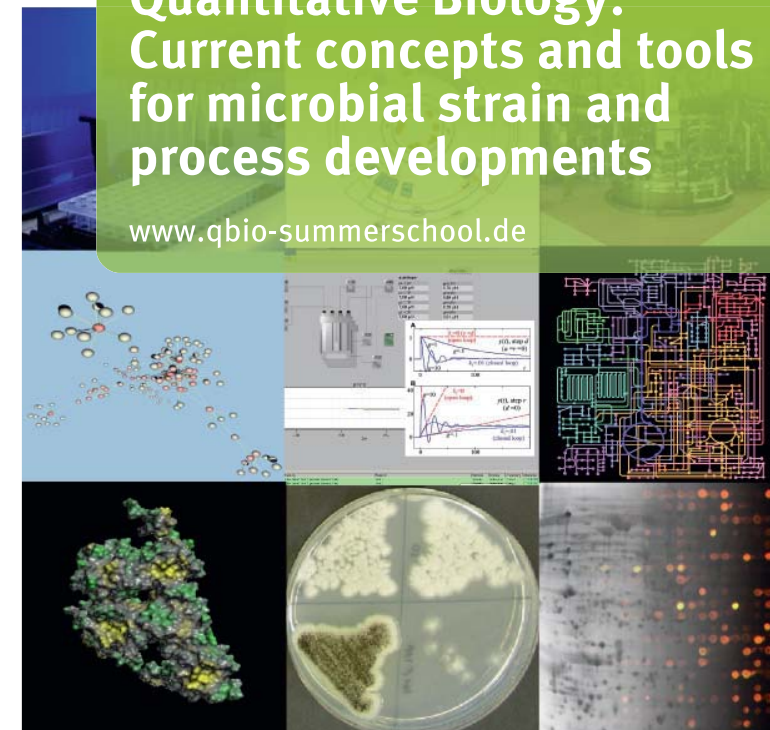


SUMMER SCHOOL

16 - 20 July 2012
 Berlin / Germany

Quantitative Biology: Current concepts and tools for microbial strain and process developments

www.qbio-summerschool.de



LECTURERS

QUANTITATIVE BIOLOGY: CURRENT CONCEPTS AND TOOLS FOR MICROBIAL STRAIN AND PROCESS DEVELOPMENTS

Modern biology and biotechnology follow the chemical, physical and engineering sciences by using quantitative mathematical models for the description of complex cellular behaviours. Concepts from molecular and systems biology, process engineering, and economy will have to be combined for the development of efficient biotechnological processes. To enable biologists, biotechnologists, and biochemical engineers to pursue this interdisciplinary challenge, it is mandatory to strengthen both the mathematical skills of biologists and the engineers' knowledge of basic biological concepts and nomenclatures.

Thus, the Young Biotechnology Researchers Network of the Society for Chemical Engineering and Biotechnology DECHEMA, consisting of young experts from Germany, devised a summer school schedule that would allow participants to familiarize themselves with relevant biological concepts, mathematical modelling strategies and appropriate (software) tools. It addresses both biologists and engineers: Along the example of renewable resource conversion, biologists will learn how engineering approaches can help them in planning, performing and evaluating experiments, whereas engineers get insight into state-of-the-art measurement techniques that feed their models.

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

The participants are encouraged to bring their laptop computers. They will be informed on the system requirements and provided with respective software to be installed on the laptop PC.

Prof. Dr.-Ing. L.M. Blank	RWTH Aachen (LB)
Prof. Dr.-Ing. A. Drews	HTW Berlin (AD)
Dr.-Ing. P. Först	TU München (PF)
Dr. B. Junker	Leibniz IPK Gatersleben (B)
Dr.-Ing. S. Junne	TU Berlin (SJ)
Dr. L. Mao	Charité Berlin (LM)
Prof. Dr.-Ing. V. Meyer	TU Berlin (VM)
Prof. Dr. E. Nevoigt	Jacobs U Bremen (EN)
Dr. C. Olbrich	Bayer HealthCare Pharmaceuticals AG (CO)
Prof. Dr. M. Oldiges	FZ Jülich (MO)
Prof. Dr. D. Schwarzer	University Tübingen (DS)
Prof. Dr.-Ing. A.C. Spiess	RWTH Aachen (AS)
Prof. Dr. B. Usadel	RWTH Aachen (BU)
Prof. Dr. W. Weber	University Freiburg (WW)



PROGRAMME

MONDAY, 16 JULY

- » Opening of the summer school (VM)
- » Fundamentals of process engineering (AD)
- » Fermentation strategies and dynamic models (PF or AD)

TUESDAY, 17 JULY

- » Rheology, fluid dynamics and bioreactors (AD)
- » Model based process design (SJ)
- » Transcriptomics (VM, BU)
- » Three parallel exercise courses

WEDNESDAY, 18 JULY

- » Proteomics (DS, BU)
- » Synthetic biology (WW)
- » Three parallel exercise courses

THURSDAY, 19 JULY

- » Metabolomics (MO)
- » Stoichiometric models (LB)
- » Metabolic flux analysis (B)
- » Evaluation of non-linear models: reaction kinetics (AS)
- » Mathematical modeling for systems biology (LM)
- » Four parallel exercise courses

FRIDAY, 20 JULY

- » Renewable resources and microbial strain optimization (EN)
- » Biologics in pharmaceutical industry (CO)
- » Economy: Process models (AS)
- » Feedback round and closing of the summer school (AS)

SOCIAL PROGRAMME / EVENINGS

Monday night, a get-together event is planned to facilitate the networking of the participants. The other evenings offer room for familiarising yourselves with software of interest.

(subject to modifications)

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

DECHEMA Research Institute
Training dept.
P.O. Box 17 03 52
D-60077 Frankfurt am Main

Registration to the DECHEMA summer school 7158
"Quantitative Biology" Berlin, 16-20 July 2012
Deadline for registration: 11 June 2012

QBio

Participant

Mrs Mr Title _____
Name _____
Surname _____
Company _____
Department _____
Street/POB _____
Code/Place _____
Phone/Fax _____ E-mail _____

Invoice address

Company _____
Department _____
Street/POB _____
Code/Place _____

Industry University PhD Student *

* Please attach proof.

Education: PhD Master Bachelor Other _____
Field: Chemist Biologist Engineer Other _____

I am interested in the following research fields: _____

The course fee amounts to € 850.- (industry), € 690.- (university), € 575.- (PhD 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.

Place, date

signature + company stamp