GENERAL INFORMATION

VENUE

Wissenschaftszentrum Straubing
Schulgasse 16
94315 Straubing, Germany

SCHEDULE

Beginning: Monday, 18 July 2016, 1 pm

End: Friday, 22 July 2016, 3 pm

LANGUAGE

The course will be held in English.

REGISTRATION

Please complete and return the enclosed form or contact:

DECHEMA-Forschungsinstitut
Training department
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: € 630.-

University: € 750.-

Industry: € 980.-

(incl. course materials, certificate of attendance, lunch, snacks and coffee breaks)

DEADLINE

20 June 2016

ACCOMMODATION

Stadthotel Wenisch
Innere Passauer Str. 59
94315 Straubing, Germany
Phone: +49 9421 9931-0
E-mail: hotel@wenisch-straubing.de
Single room: € 79.80 per night (including breakfast)

Please contact the hotel directly to book a room by 14 June 2016 mentioning the code "SSQBIO 2016".

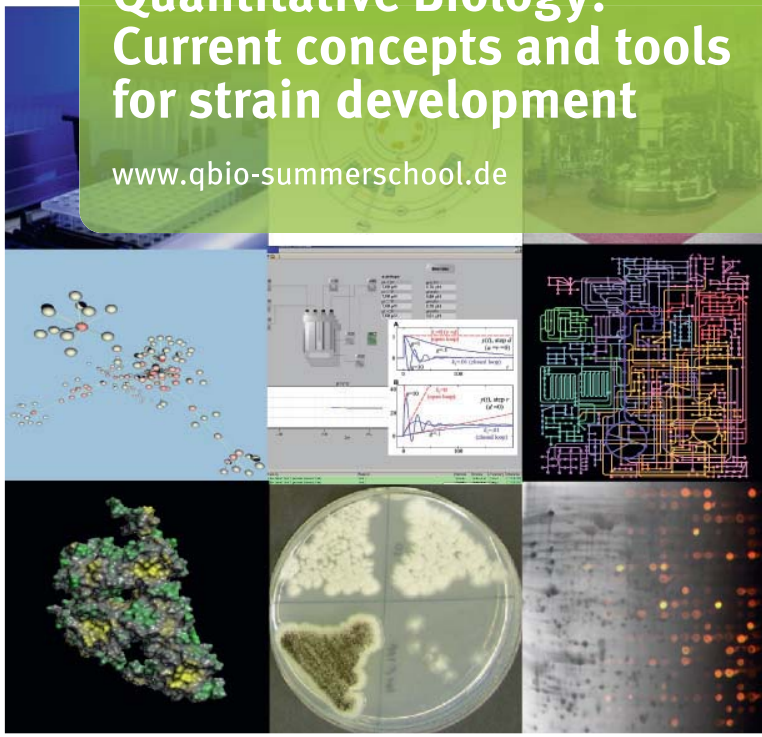
DECHEMA

SUMMER SCHOOL

18 - 22 July 2016
Straubing / Germany

Quantitative Biology: Current concepts and tools for strain development

www.qbio-summerschool.de



QUANTITATIVE BIOLOGY: CURRENT CONCEPTS AND TOOLS FOR STRAIN DEVELOPMENT

Modern biology and biotechnology follow the chemical, physical and engineering sciences by using quantitative mathematical models for the description of complex cellular behaviors. Concepts from molecular and systems biology, synthetic 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 Society for Chemical Engineering and Biotechnology DECHEMA (Frankfurt) and the Straubing Center of Science with the Technical University of Munich (TUM) devised a summer school schedule that would allow participants to familiarize themselves with relevant biological concepts from systems and synthetic biology, with mathematical modeling strategies and appropriate technologies and software tools. The summer school addresses both biologists and engineers: 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 biological models.

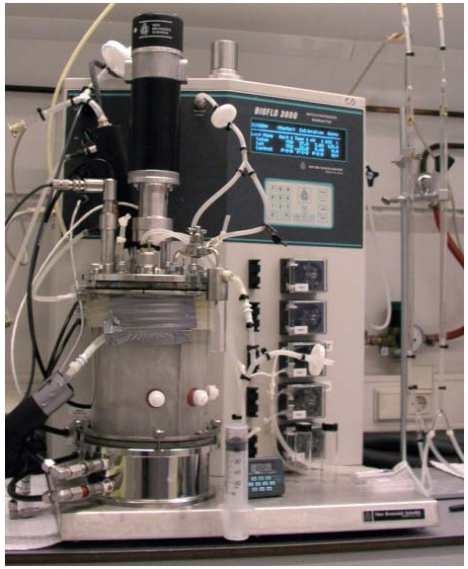
The course consists of formal lectures, workshops and tutorials for hands-on experience with state-of-the-art tools.

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.

LECTURERS

Prof. Dr. Andreas Kremling	TU München
Dr. Lars Küpfer	RWTH Aachen
Dr. Jan Marienhagen	FZ Jülich
Prof. Dr.-Ing. Vera Meyer	TU Berlin
Dr.-Ing. Stephan Noack	FZ Jülich
Prof. Dr. Marco Oldiges	FZ Jülich
Dr. Arthur Ram	Leiden University
Dr.-Ing. Jochen Schmid	TU München
Prof. Dr. Matias Zurbriggen	Heinrich Heine University Düsseldorf

(subject to modifications)



PROGRAMME

MONDAY, 18 JULY

» Opening of the summer school (Jochen Schmid)
» Cell factory design and optimization – examples from bacterial and fungal production platforms (Jan Marienhagen, Vera Meyer)

TUESDAY, 19 JULY

» Transcriptomics and Proteomics – Principles, data handling and (joint) comparative profiling (Arthur Ram)
» Mathematical modelling for Systems Biology (Andreas Kremling)

WEDNESDAY, 20 JULY

» Synthetic Biology – From modular biologic devices to synthetic gene networks for microbial, plant and mammalian systems (Matias Zurbriggen)

THURSDAY, 21 JULY

» Metabolomics – From stoichiometric models to metabolic flux analysis (Lars Küpfer, Marco Oldiges)

FRIDAY, 22 JULY

» Quantitative Proteomics (Stephan Noack)
» Microbial strain optimization in the context of bioeconomy (Jochen Schmid)
» Feedback round and closing of the summer school (Jochen Schmid)

SOCIAL PROGRAMME / EVENINGS

Monday night, a get-together event is planned to facilitate the networking of the participants. There will be ample opportunity to familiarize oneself with the software of interest in the evenings. Wednesday afternoon we will visit the gene synthesis company Thermo Fisher Scientific/Geneart GmbH in Regensburg.

(subject to modifications)

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

DECHEMA-Forschungsinstitut
Training department
P.O. Box 17 03 52
D-60077 Frankfurt am Main

Registration to the DECHEMA summer school 7158 **QBio**
"Quantitative Biology", Straubing, 18 - 22 July 2016
Deadline for registration: 20 June 2016

Participant

Ms ☐ Mr ☐ Title _____

Name _____ Surname _____

Company _____

Department _____

Street/POB _____

Code/Place _____

Phone/Fax _____ E-mail _____

Industry ☐ University ☐ PhD Student * ☐
* Please attach proof.

Invoice address

Company _____

Department _____

Street/POB _____

Code/Place _____

Method of payment

☐ bank transfer after receipt of invoice

☐ by credit card:

☐ Mastercard ☐ Visa

Card number _____ Expiration date _____/_____

The course fee amounts to € 980.- (industry), € 750.- (university), € 630.- (PhD students). 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