

Practical Course on High-throughput RNAi

Organizers:

Michael Boutros, DKFZ and University of Heidelberg

Holger Erfle, University of Heidelberg

BioQuant, Heidelberg, Germany

February 08 – 12, 2010

Program

General organization of the course

All lectures will take place at BioQuant in Heidelberg.

Lunch will take place in the DKFZ Casino unless stated otherwise.

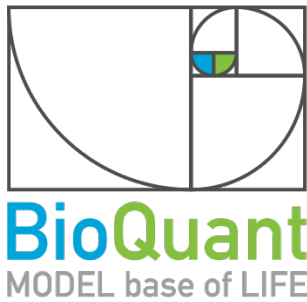
For the practical work the students will be split into four groups, which will rotate through the different stations of practical work. All students will participate in all practical sessions.

Instructors and tutors:

Kathleen Börner, University of Heidelberg
Michael Boutros, DKFZ and University of Heidelberg
Christoph Claas, University of Heidelberg
Jan Ellenberg, EMBL, Heidelberg
Holger Erfle, University of Heidelberg
Anja Fritzsche, DKFZ, Heidelberg
Daniel Gilbert, DKFZ, Heidelberg
Dirk Grimm, University of Heidelberg
Wolfgang Huber, EMBL, Heidelberg
Andreas Jaedicke, DKFZ, Heidelberg
Lars Kaderali, University of Heidelberg
Bettina Knapp, University of Heidelberg
Urban Liebel, KIT, Karlsruhe
Beate Neumann, EMBL, Heidelberg
Walter Nickel, BZH, Heidelberg
Dorothee Nickles, DKFZ, Heidelberg
Gregoire Pau, EMBL, Heidelberg
Rainer Pepperkok, EMBL, Heidelberg
Susanne Reusing, University of Heidelberg
Jürgen Reymann, University of Heidelberg
Alessia Ruggieri, University of Heidelberg
Heiko Runz, University of Heidelberg
Gerhard Schratt, University of Heidelberg
Vytaute Starkuviene, University of Heidelberg

Sponsors:

The Organising Committee gratefully acknowledges support towards the organisation of the "Practical Course on High-throughput RNAi" from the following sources:



Alliance on Systems Biology

SBCancer.

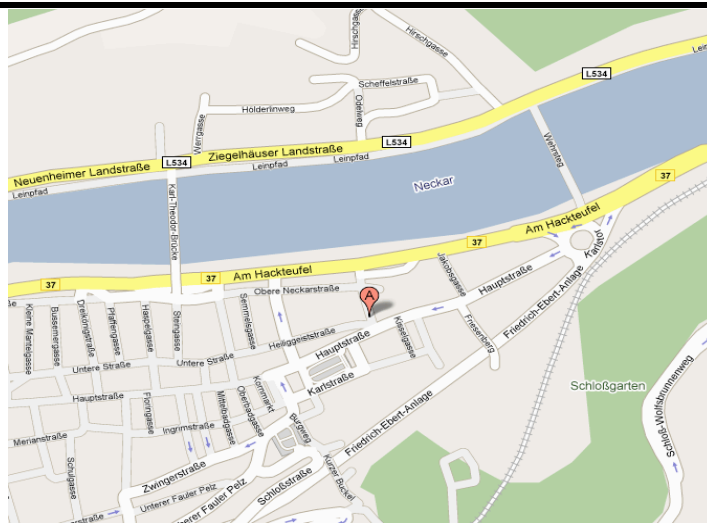


UNIVERSITÄT
HEIDELBERG



Course program

Time/Date	Monday, February 8th
08:00 – 09:00	Registration
09:00 – 09:30	Introduction: Michael Boutros, Holger Erfle
09:30 – 10:00	Introduction of participants
10:00 – 10:45	Lecture Heiko Runz "Identification of cholesterol-regulating genes by targeted RNAi screening."
10:45 – 11:15	Coffee Break
11:15 – 11:45	Lecture Michael Boutros "Dissection Cellular Pathways by large-scale RNAi"
11:45 – 12:15	Lecture Holger Erfle "The RNAi Screening Facility at BioQuant"
12:15 – 12:45	Lecture Vytaute Starkuviene "Functional analysis of microRNAs as regulators of secretory membrane trafficking"
12:45 – 13:15	Tutorial Daniel Gilbert
13:15 – 14:15	Lunch Poster installation
14:15 – 16:15	Practical Session Lab session (in groups)
16:15 – 16:45	Coffee Break
16:45 – 18:45	Practical Session Lab session (in groups)
20:00	Dinner in downtown Heidelberg Restaurant: Kulturbrauerei (marked as A on the map) Leyergasse 6 69117 Heidelberg



Time/Date	Tuesday, February 9 th
09:00 -09:45	Lecture Alessia Ruggieri
10:00 – 10:45	Lecture Jan Ellenberg „Automating fluorescence microscopy for systems biology: From genome-wide profiling to the analysis of protein complexes“
10:45 – 11:15	Coffee break
11:15 – 13:00	RNAi reagent presentations Ambion, Dharmacon, Qiagen
13:00 – 14:00	Lunch
14:00 – 16:30	Practical Session Lab session (in groups)
16:30 – 17:00	Coffee Break
17:00 – 19:30	Practical Session Lab session (in groups)

Time/Date	Wednesday, February 10th
09:00 – 09:45	Lecture Kathleen Börner "High-throughput siRNA screening to identify new cellular interaction partners of HIV-1"
09:45 – 10:30	Lecture Gerhard Schratt "Fine-tuning gene expression with microRNAs: Implications for synapse development and plasticity"
10:30 – 11:00	Group picture Coffee break
11:00 – 11:45	Lecture Urban Liebel
11:45 -13:00	Lunch
13:00 - 15:00	Practical Session Microscopy Readout (in groups) Microscopy presentations Olympus, Leica, GE-Healthcare, Perkin Elmer (in groups)
15:00 – 15:30	Coffee Break
15:30 – 17:30	Practical Session Microscopy Readout (in groups) Microscopy presentations Olympus, Leica, GE-Healthcare, Perkin Elmer (in groups)
17:30 – 18:15	Tutorial Beate Neumann „RNAi and Assay Development“
18:15 – 19:00	Assay development and setup Discussion with Instructors
19:30 – 22:00	Poster session Beer & (Snacks/Finger-buffet)

Time/Date	Thursday, February 11 th
09:00 – 09:45	Lecture Wolfgang Huber “Orienteeing in cellular phenotype and genetic interaction space“
09:45 – 10:30	Lecture Walter Nickel
10:30 - 11:00	Coffee break
11:00 – 11:45	Lecture Lars Kaderali
11:45 – 12:45	Tutorial Gergoire Pau, Dorothee Nickles “cellHTS2 Introduction”
12:45 - 13:45	Lunch
13:45 – 16:15	Practical session Readout & analysis of screening experiments (in groups)
16:15 – 16:45	Coffee Break
16:45 - 19:15	Practical session Readout & analysis of screening experiments (in groups)
19:15 – 22:00	Snacks and preparation of group presentations

Time/Date	Friday, February 12 th
09:00 – 09:45	Lecture Dirk Grimm (tentative)
09:45 – 10:30	Lecture Rainer Pepperkok “High-content screening for illuminating secretory pathways”
10:30 - 11:00	Coffee break
11:00 – 12:30	Group presentations and discussions Screening 1
12:30 – 13:30	Lunch
13:30 – 15:00	Group presentations and discussions Screening 2
15:00 – 15:30	Concluding remarks and Certificates Michael Boutros and Holger Erfle
15:30	Departure