

GGNB Methods Courses 2013 - Overview Sep 2013 - Feb 2014

Last Update: 26 June 2013

**Short Methods Courses & Method Seminars; Extended Methods Courses
Sep 2013 - Feb 2014 (B)**

| Department/Group | Supervisor(s) | UniVZ | ID | Title of Course | Credits | Date B |
|-----------------------|---|--------|-------|---|---------|----------------|
| Biochemistry | | | | | | |
| Jahn, Reinhard | Kühnel, Karin /Scacioc, Andrea | 340004 | A 036 | Protein purification and characterization | 1.0 | 14-15 Nov 2013 |
| Höbartner, Claudia | Höbartner, Claudia | 340005 | A 032 | Chemical synthesis and enzymatic ligation of RNA and DNA oligonucleotides | 1.0 | 21-22 Nov 2013 |
| Rodnina, Marina | Holtkamp, Wolf | 340010 | A 081 | Introduction to transient kinetic methods | 1.0 | 21-22 Oct 2013 |
| Schmitt, Hans Dieter | Schröter, Saskia/ Beckermann, Sabine | 340015 | A 034 | BiFC (bimolecular fluorescence complementation) in yeast | 1.0 | Nov 2013 (tba) |
| Tittmann, Kai | Wechsler, Cindy/Schröder-Tittmann, Kathrin | 340018 | A 064 | Principles and methods of protein purification by chromatography | 1.0 | 11-12 Nov 2013 |
| Urlaub, Henning | Atanassov, Ilian / Hofele, Romina / Karaca, Samir / Qamar, Saadia / | 340020 | A 065 | Sequence analysis of proteins and their post-translational modifications by MALDI-ToF and electrospray ionization (ESI) mass spectrometry | 1.0 | tba |
| Rehling, Peter | Deckers, Markus | 340021 | A 092 | Subcellular fractionation | 0.5 | 14 Nov 2013 |
| Fischle, Wolfgang | Hamada, Kyoko | 340044 | A 075 | Chromatin Immunoprecipitation (ChIP) | 1.0 | 28-30 Oct 2013 |
| Jahn, Reinhard | Park, Yongsoo /Yavuz, Halenur | 340046 | A 033 | Reconstitution of neuronal exocytosis | 1.0 | 17-18 Oct 2013 |
| Rehling, Peter | Bareth, Bettina/ Römler, Katharina | 340074 | A 053 | Blue-native PAGE analysis of membrane protein complexes | 1.0 | 18-19 Feb 2014 |
| Lührmann, Reinhard | Hartmuth, Klaus | 340075 | A 093 | The application of RNA structure determination methodology to the analysis of RNA-protein interactions in RNP complexes | 1.0 | 5-7 Feb 2014 |
| Wintermeyer, Wolfgang | Bornemann, Thomas | 340076 | A 105 | Equilibrium studies of protein-ligand interactions using fluorescence techniques | 1.0 | 14-15 Oct 2013 |
| Tittmann, Kai | Tietzel, Michael | 340077 | A 071 | Thermodynamic characterization of biomolecular interactions by isothermal titration calorimetry | 1.0 | 14-15 Nov 2013 |
| Jahn, Reinhard | Halder, Partha/ Angel Perez Lara | 340171 | A 146 | Reconstitution of membrane fusion by proteoliposomes | 1.0 | 3-5 Sep 2013 |
| Görlich, Dirk | Frey, Steffen | 340180 | A 131 | Methods in bacterial protein expression and purification | 0.5 | 03 Dez 2013 |
| Görlich, Dirk | Frey, Steffen | 340183 | A 132 | Purification of recombinant proteins from <i>E. coli</i> | 1.0 | 3-4 Dez 2013 |
| Konrad, Manfred | Karamitros, Christos | 340200 | A 151 | Introduction to steady-state kinetics | 1.0 | 9-10 Jan 2014 |
| Walter, Lutz | Walter, Lutz/ Zeitseva, Olena | 340205 | A 155 | High-throughput single-cell quantitative microfluidic RT-PCR | 1.0 | 24-25 Oct 2013 |

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| Molecular Biology & Genetics | | | | | | |
| Dobbelstein, Matthias | Jagannathan, Veena/ Krönung, Sonja | 340003 | A 010 | Assessing promoter activity by luciferase assays | 1.0 | Oct/Nov 2013 (tba) |
| Dobbelstein, Matthias | Wienken, Magdalena | 340017 | A 011 | Polymerase Chain Reaction I and advanced applications | 1.0 | 10-11 Oct 2013 |
| Gruber, Jens | Gruber, Jens | 340022 | A 068 | Mechanisms of RNA silencing | 1.0 | Nov 2013 (tba) |
| Brenig, Bertram | Schütz, Ekkehard | 340098 | A 113 | NGS and HTP SNP typing | 1.0 | tba |
| Brenig, Bertram | Schütz, Ekkehard | 340170 | A 006 | Genotyping using FRET on the LightCycler | 1.0 | tba |
| Jakobs, Stefan | Jensen, Nickels | 340191 | A 147 | Mutagenesis and screening strategies to design photoswitchable fluorescent proteins | 1.0 | 22-23 Oct 2013 |
| Beißbarth, Tim / Bonn Stefan / Posnien, Nico | | 340208 | A 157 | Next Generation Sequencing (NGS) – Analysis of RNAseq and ChIP-seq data | 1.5 | 26-28 Nov 2013 |
| Cell Biology & Microbiology, Imaging | | | | | | |
| Nave, Klaus-Armin | Möbius, Wiebke | 340025 | A 044 | Subcellular localization of proteins by immunoelectron microscopy of cryosections | 1.0 | 11-12 Nov 2013 |
| Olympus / Bodenschatz lab | Schmidt, Helge / Tarantola, Marco | 340027 | A 046 | Theory and basics of fluorescence microscopy and imaging / Introduction to life science research applications FRET, FRAP, FLIM, | 1.0 | Mar 2014 (tba) |
| Kehlenbach, Ralph | Kehlenbach, Ralph | 340081 | A 039 | Analysis of nucleocytoplasmic transport by flow cytometry | 0.5 | 29 Jan 2014 |
| Cordes, Volker | Cordes, Volker | 340110 | A 009 | Preparation of <i>Xenopus laevis</i> nuclear envelopes and their analysis by field emission scanning electron microscopy | 1.0 | 5-7 Feb 2014 |
| Simons, Mikael | Mitkovski, Miso | 340114 | A 059 | GFP proteins and their application (FRAP, FRET, photo activation) | 1.0 | 4-5 Nov 2013 |
| Großhans, Jörg | Gummalla, Mahesh | 340163 | A 124 | Live imaging and laser ablation | 1.0 | 9-10 Sep 2013 |
| Jakobs, Stefan | Kummer, Susann | 340182 | A 134 | Imaging Mitochondria in Eukaryotic Cells | 1.0 | 10-11 Sep 2013 |
| Developmental Biology, Anatomy & Histology | | | | | | |
| Eichele, Gregor / Geffers, Lars | Miletic, Helena | 340029 | A 013 | Mouse histology & <i>in situ</i> expression analyses | 1.0 | 4-5 Nov 2013 |
| Stadelmann-Nessler, Christine | Stadelmann-Nessler, Christine/ Kowatsch, Olga | 340033 | A 060 | Non-radioactive <i>in situ</i> hybridization | 1.0 | 11-13 Nov 2013 |
| Bucher, Gregor | Bucher, Gregor | 340083 | A 145 | Orthologs and Paralogs – how they evolve and how to distinguish them | 0.5 | 08 Nov 2013 |
| Hahn, Heidi | Nitzki, Frauke / Becker, Marco | 340084 | A 028 | <i>In situ</i> hybridization of paraffin embedded tissue sections | 1.0 | 17-21 Feb 2014 |
| Pieler, Tomas | Henningfeld, Kristine | 340120 | A 051 | Gene regulation in <i>Xenopus</i> | 1.0 | 18-20 Nov 2013 |
| Dobbelstein, Matthias | Lizé, Muriel | 340181 | A 129 | Preparation of mouse embryonic fibroblasts (culture of primary cells) | 1.0 | tba |

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| Vertebrate Animal Models | | | | | | |
| Bayer, Thomas A. | Wirths, Oliver | 340034 | A 002 | Alzheimer's disease: Behavioural and neuropathological analysis of transgenic mouse models | 1.0 | 26-27 Nov 2013 |
| Schraepler, Anke / Reupke, Brembeck, Felix | Schraepler, Anke | 340036 | A 101 | Introduction to laboratory animal science | 1.5 | 16-20 Sep + 1-2 Oct 2013 |
| | Bunzendahl, Jens | 340086 | A 107 | Tissue processing and immunohistochemistry on tissue sections of genetically engineered mouse models | 1.0 | Dec 2013 (tba) |
| Bähr, Mathias | Lingor, Paul | 340194 | A 139 | In vitro and in vivo for Parkinson's disease research | 0.5 | 05 Nov 2013 |
| Molecular & Cellular Neuroscience, Electrophysiology | | | | | | |
| Rhee, JeongSeop | Rhee, JeongSeop | 340038 | A 096 | Nerve cell culture and patch-clamp recordings from nerve cells | 1.0 | 23-24 Sep 2013 |
| Rizzoli, Silvio | Revelo, Natalia/ Saka, Sinem/ Vreja, Ingrid | 340039 | A 089 | High resolution microscopy in synapses | 1.0 | 25-26 Sep 2013 |
| Stühmer, Walter | Pardo, Luis | 340040 | A 063 | Patch clamp | 1.0 | 22-24 Jan 2014 |
| Fiala, André / Göpfert, Martin | | 340087 | A 083 | Drosophila Neurogenetics | 1.0 | 9-11 Sep 2013 |
| Brose, Nils / Rizzoli, Silvio | | 340124 | A 42 | Fundamental principles of sensory processing | 0.5 | 2 Oct 2013 |
| Bringmann, Henrik | Spies, Jan / Turek, Michal / Schwarz, Julianne | 340187 | A 137 | Neurobiology of <i>C. elegans</i> | 0.5 | 17 Oct 2013 |
| Brose, Nils | Papdopoulos, Theofilos / Meyer, Simone | 340196 | A 149 | Culturing hippocampal neurons: Preparation and analysis by immunostaining | 1.0 | 16-17 Sep 2013 |
| Brose, Nils | Krüger, Dilja | 340197 | A 153 | Isolation of synaptic compartments for quantitative biochemical analysis | 0.5 | tba |
| Theoretical, Systems & Behavioral Neuroscience | | | | | | |
| Antal, Andrea | Paulus, Walter | 340056 | A 048 | Transcranial magnetic- and electrical stimulation | 1.0 | 20-22 Feb 2014 |
| Ehrenreich, Hannelore | Begemann, Martin / Bartels, Claudia | 340185 (B) | A 012 | Translational Neuroscience: (A) Schizophrenia, (B) Multiple Sclerosis | 2.0 / module | (B) 1-3 Nov 2013 |
| Structural Biology | | | | | | |
| Bennati, Marina | Türke, Maria Teresa / Tkach, Igor / Argirevic, Tomislav | 340055 | A 003 | EPR-Spectroscopy | 1.5 | 18-20 Sep 2013 |
| Pena, Vlad | Schmitzova, Jana / Steuerwald, Ulrich / De, Inessa / de Moura, | 340059 | A 102 | Crystallization of biological macromolecules | 1.0 | 20-21 Jan 2014 |
| Stark, Holger | N.N. | 340060 | A 061 | 3D structure determination of macromolecular complexes by single particle cryo-EM | 1.0 | tba |

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| Biophysics, Bioinformatics and Statistics | | | | | | |
| Friede, Tim | Konietsche, Frank / Lange, Katharina | 340061 | A 100 | Basic statistics for graduate students in the life sciences | 1.0 | 21-24 Oct 2013 |
| Steinem, Claudia / Janshoff, Andreas | Mey, Ingo / Neubacher, Henrik | 340065 | A 062 | Scanning Ion Conductance Microscopy, a versatile tool to study surfaces and surface properties | 1.0 | 14-15 Nov 2013 |
| Mitkovski, Mišo | Mitkovski, Mišo | 340066 | A 098 | Introduction to image processing in biology with ImageJ and Fiji | 1.0 | 4-5 Dec 2013 |
| Steinem, Claudia / Janshoff, Andreas | Schatz, Michaela | 340067 | A 133 | Using biosensors to study analyte-ligand interactions: basic principles and applications | 0.5 | 29 Nov 2013 |
| Walter, Lutz | Brameier, Markus | 340068 | A 067 | Introduction to Bioinformatics Methods | 1.0 | Oct 2013 (tba) |
| Kollmar, Martin | Mühlhausen, Stefanie | 340131 | A 116 | Protein family analysis as basis for experiments and experimental data interpretation | 1.0 | 9-10 Oct 2013 |
| Grubmüller, Helmut / Schmidt, Christoph F. | Grubmüller, Helmut / Schmidt, Christoph F. | 340166 | A 025 | Current Topics in Biophysics – Lecture Series | 1.0 | Fridays |
| Grubmüller, Helmut | Kaptan, Shreyas | 340168 | A 024 | Introduction to molecular dynamic simulation | 1.0 | tba |
| Köster, Sarah | Dammann, Christian/ Saldanha, Oliva | 340169 | A 117 | Microfluidics | 1.0 | 2 courses: 14-15 Oct and 20-21 Oct 2013 |
| Beißbarth, Tim | Bayerlova, Michaela | 340172 | A 126 | Introduction to R and microarray analysis | 1.0 | 9-11 Oct 2013 |
| Grubmüller, Helmut / de Groot, Bert / Groenhof, Enderlein, Jörg | Grubmüller, Helmut / de Groot, Bert Ghosh, Siddharth | 340195 | A 143 | Theoretical and Computational Biophysics: Introduction | 1.5 | Mondays |
| Timme, Marc / Geisel, Theo / Wolf, Fred | | 530170 | A 154 | Optics in Microscale to Nanoscale: From Rainbow to Plasmonic | 0.5 | 3-4 Sep 2013 |
| Extended Methods Courses | | | | | | |
| Hell, Stephan / Egner, Alexander | Hell, Stephan / Egner, Alexander | 340125 | E 01 | Advanced Light Microscopy | 3.0 | 16-20 Sep 2013 |