

## GGNB Methods Courses 2015/16: Overview March - August 2015

### Short Methods Courses & Method Seminars; Extended Methods Courses Mar - Aug 2015 (A)

\* course will also be offered in the next course announcement (September 2015 - February 2016)

Department/Group	Supervisor(s)	UniVZ	ID	*	Title of Course	Credits	Date A
<b>Biochemistry</b>							
Jahn, Reinhard	Kühnel, Karin / Metje, Janina	340004	A 036	*	Protein purification and characterization	1.0	16-17 Apr 2015
Schmitt, Hans Dieter	Beckmann, Sabine	340015	A 034	*	BiFC (bimolecular fluorescence complementation) in yeast	1.0	May 2015
Tittmann, Kai	Sautner, Viktor / v. Pappenheim, Fabian R. / Brodhun, Florian	340018	A 064	*	Principles and methods of protein purification by chromatography	1.0	9-10 Mar 2015
Rehling, Peter	Wuttke, Jan-Moritz	340021	A 092	*	Subcellular fractionation	0.5	1 Apr 2015
Feußner, Ivo	Herrfurth, Cornelia	340045	A 016	*	Introduction to lipid analysis	1.0	9-11 Mar 2015
Jahn, Reinhard	Milovanovic, Dragomir / Witkowska, Agata	340046	A 033	*	Reconstitution of neuronal exocytosis	1.0	26-27 Mar 2015
Tittmann, Kai	Tietzel, Michael / Kupsi, Oliver / Sabin Prajapati	340077	A 071	*	Thermodynamic characterization of biomolecular interactions by isothermal titration calorimetry	1.0	12-13 Mar 2015
Jahn, Reinhard	Halder, Partho/ Perez Lara, Angel	340171	A 146	*	Reconstitution of membrane fusion by proteoliposomes	1.0	18-19 Jun 2015
Walter, Lutz	Walter, Lutz / Zaitseva, Olena	340184	A 138	*	High-throughput single-cell quantitative microfluidic RT-PCR	1.0	21-22 May 2015
Urlaub, Henning	Chernev, Aleksandar / Karaca, Samir / Qamar, Saadia / Mandad, Sunit / Sharma, Kundan	340201	A 177	*	Sequence analysis of proteins and their post-translational modifications by electrospray ionization (ESI) mass spectrometry	1.0	11-13 May 2015
Kawabe, Hiroshi	Altas, Bekir	340203	A 178		Biochemical affinity purification of binding partners	0.5	tba
Kawabe, Hiroshi	Ambrozkiwicz, Mateusz	340205	A 179		<i>In vivo</i> gene induction in cortical neurons by <i>in utero</i> electroporation	0.5	tba
Rehling, Peter	Levchenko, Maria / Lorenzi, Isotta	340211	A 163	*	Native membrane protein complex isolation	0.5	5 Mar 2015
Rehling, Peter	Schendzielorz, Alexander / Naumenko, Nataliia	340212	A 164		<i>In vitro</i> import into purified mitochondria	1,0	7-8 May 2015
Konrad, Manfred	Nazim Uddin	340222	A 151	*	Introduction to steady-state kinetics	1.0	21-22 May 2015

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<b>Molecular Biology &amp; Genetics</b>							
Gruber, Jens	Gruber, Jens	340022	A 068	*	Mechanisms of RNA silencing	1.0	16-17Jul 2015
Brenig, Bertram	Schütz, Ekkehard	340098	A 113	*	NGS and HTP SNP typing	1.0	20-22 Apr 2015
Brenig, Bertram	Schütz, Ekkehard	340170	A 006	*	Genotyping using FRET on the LightCycler	1.0	13-14 Apr 2015
Fischer, André	Urbanke, Hendrik / Navarro, Magdalena	340218	A 084	*	Chromatin-immunoprecipitation and epigenomic gene-profiling in the adult brain	1.0	13-14 Apr 2015
Jakobs, Stefan	Jensen, Nickels	340226	A 173	*	Strategies to design photoswitchable fluorescent proteins and their application in nanoscopy	1.0	14-15 Apr 2015
<b>Cell Biology &amp; Microbiology, Imaging</b>							
Nave, Klaus-Armin	Möbius, Wiebke	340025	A 044	*	Subcellular localization of proteins by immunoelectron microscopy of cryosections	1.0	15-16 June 2015
Tarantola, Marco / Olympus	Tarantola, Marco	340027	A 046	*	Theory and basics of fluorescence microscopy and imaging / Introduction to life science research applications FRET, FRAP, FLIM, caging–uncaging, GFP, Fluorescence microscopy of living cells	1.0	tba
Großhans, Jörg	Kong, Deqing	340163	A 124		Live imaging and laser ablation	1.0	17-18 Aug 2015
Enderlein, Jörg	Karedla, Narain	340206	A 180		Introduction to Confocal Microscopy and related techniques	1.0	18-22 May 2015
Frahm, Jens	Roeloffs, Volkert / Tan, Zhengguo / Wang, Xiaoping / Andreas	340210	A 162		Basic principles of MRI and Real-Time MRI	1.0	13 Apr 2015
Luther, Stefan	Baig, Tariq	340214	A 166		Visualization of Scientific Data - Methods Course	0.5	June 2015
Pöhlmann, Stefan	Winkler, Michael / Hofmann-Winkler, Heike / Gnirß, Kerstin	340221	A 171	*	Viral transduction systems	1,0	24-26 Mar 2015
<b>Developmental Biology, Anatomy &amp; Histology</b>							
Stadelmann-Nessler, Christine	Schulz, Katja	340033	A 060	*	Non-radioactive <i>in situ</i> hybridization	1.0	16-18 Mar 2015
Bucher, Gregor	Bucher, Gregor	340083	A 145	*	Orthologs and Paralogs – how they evolve and how to distinguish them	0.5	6 Mar 2015
Hahn, Heidi	Nitzki, Frauke / Pyczek, Joanna	340084	A 028		<i>In situ</i> hybridization of paraffin embedded tissue sections	1.0	18-20 May 2015
Shcherbata, Halyna	Shcherbata, Halyna	340085	A 056	*	Introduction to basic histology techniques	1.0	16-17 Mar 2015
Dobbelstein, Matthias	Lizé, Muriel	340220	A 181		Mouse preparation with emphasis on the respiratory tract	1.0	07 Apr 2015

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<b>Vertebrate Animal Models</b>							
Steinbrecher, Julia / Reupke, Verena	Reupke, Verena	340036	A 101	*	Introduction to laboratory animal science	1.5	March 2015
Brembeck, Felix	Tala, Suranand B.	340086	A 107		Tissue processing and immunohistochemistry on tissue sections of genetically engineered mouse models	1.0	Mar 2015
Bayer, Thomas A.	Wirths, Oliver	340199	A 175	*	Neurodegenerative Diseases: Behavioral and neuropathological analysis of transgenic mouse models	1.0	10-11 Jun 2015
Bähr, Mathias	Lingor, Paul	340219	A 139	*	<i>In vitro</i> and <i>in vivo</i> models for Parkinson's disease research	0.5	24 Mar 2015
<b>Molecular &amp; Cellular Neuroscience, Electrophysiology</b>							
Rhee, JeongSeop	Rhee, JeongSeop	340038	A 096	*	Nerve cell culture and patch-clamp recordings from nerve cells	1.0	30-31 Mar 2015
Rizzoli, Silvio	Seitz, Katharina / Zhang, William / Maidorn, Manuel	340039	A 089		High resolution microscopy in synapses	1.0	2-3 March 2015
Stühmer, Walter	Pardo, Luis	340040	A 063	*	Patch clamp	1.0	8-10 Jul 2015
Fiala, André / Göpfert, Martin	Riemensperger, Thomas / Geurten, Bart	340087	A 083	*	<i>Drosophila</i> Neurogenetics	1.0	6-8 Apr 2015
Gollisch, Tim	Kühn, Norma / Schreyer, Helene / Khani, Mohammad	340185	A 140		Multielectrode Array Recordings from the Retina	1.0	11-13 May 2015
Moser, Tobias	Wichmann, Carolin / Chakrabarti, Rituparna	340196	A 149	*	Basic methods of transmission electron microscopy - from tissue preparation to 3D reconstruction	1.0	2-3 Jun 2015
<b>Theoretical, Systems &amp; Behavioral Neuroscience</b>							
Gail, Alexander	Gail, Alexander	340043	A 073		Introduction to Matlab in Systems Neuroscience	1.0	Wed: 15 Apr-27 May 2015 (lectures)
Antal, Andrea	Strenzke, Nicola / Hoch, Gerhard	340054	A 041		Auditory and visual evoked potentials	1.0	May 2015
Ehrenreich, Hannelore	Begemann, Martin / Bartels, Claudia	340137	A 012		Translational Neuroscience: Schizophrenia	2.0	12-14 June 2014
Treue, Stefan / Gail, Alexander	Treue, Stefan / Gail, Alexander / Quigley, Clíodhna	340231	A 168		Visual psychophysics - From theory to experiment	1.0	Wed, 3 Jun-15 Jul 2015 Fri, 5 Jun-10 Jul 2015
Geisel, Theo / Timme, Marc / Wolf, Fred	Geisel, Theo / Timme, Marc / Wolf, Fred	350036	A 022		Theoretical and Computational Neuroscience: Collective Dynamics Biological Neural Networks II	2.0	Fridays

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<b>Structural Biology</b>							
Bennati, Marina	Liu, Guoquan / Kasanmascheff, Müge	340055	A 003	*	EPR-Spectroscopy	1.5	11-13 Mar 2015
Pena, Vlad	Ponce Salvatierra, Almudena / Cretu, Constantin / Kibedi, Csaba	340059	A 102		Crystallization of biological macromolecules	1.0	2-4 Mar 2015
Stark, Holger	Niels Fischer	340060	A 061	*	3D structure determination of macromolecular complexes by single particle cryo-EM	1.0	May 2015
Ficner, Ralf	Neumann, Piotr	340130	A 103		X-ray crystallography	2.5	20-24 Apr 2015
<b>Biophysics, Bioinformatics and Statistics</b>							
Friede, Tim	Röver, Christian	340061	A 100	*	Basic statistics for graduate students in the life sciences	1.0	23-27 Mar 2015
Mitkovski, Mišo	Mitkovski, Mišo / Alexopoulos, Ioannis	340066	A 098	*	Introduction to image processing in biology with ImageJ	1.0	19-20 Mar 2015
Steinem, Claudia	Gleisner, Martin / Mey, Ingo	340067	A 133	*	Using biosensors to study analyte-ligand interactions: basic principles and applications	0,5	19 Mar 2015
Burg, Thomas P.	Burg, Thomas P.	340135	A 121	*	Micropatterning and Microfluidics	1.0	May/June 2015 (tbd)
Grubmüller, Helmut / Schmidt, Christoph F.	Grubmüller, Helmut / Schmidt, Christoph F.	340166	A 025	*	Current Topics in Biophysics – Lecture Series	1.0	Fridays
Norma Kühn, Frank / Stollmeier, Florencia	Kühn, Norma / Stollmeier, Frank / Noriega, Florencia / Manik,	340156	A 123		Python programming introductory course	2.0	23-25, 30-31 Mar 2015
Beißbarth, Tim	Wolf, Alexander	340200	A 176	*	Introduction to R and RNA-Seq analysis	1.0	7-9 Apr 2015
Enderlein, Jörg	Ghosh, Siddharth	340201	A 154		Optics in Microscale to Nanoscale: From Rainbow to Plasmonic	1.5	22-24 Apr 2015
Steinem, Claudia / Janshoff, Andreas	Mey, Ingo / Henrik Neubacher	340203	A 169	*	Atomic Force Microscopy vs. Scanning Ion Conductance Microscopy; versatile tools to study surfaces and surface properties	1.0	9-10 Jul 2015
Grubmüller, Helmut / de Groot, Bert / Hub,	Grubmüller, Helmut / de Groot, Bert / Hub, Jochen	340204	A 170		Biomolecular Physics and Simulations	1.5	Mondays
Beißbarth, Tim/ Bonn, Stefan / Posnien, Nico	Beißbarth, Tim / Bonn, Stefan / Posnien, Nico	340208	A 157	*	Next Generation Sequencing (NGS) – Analysis of RNAseq and ChIP-seq data	1.5	21-23 Apr 2015

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<b>Biophysics, Bioinformatics and Statistics (continued)</b>							
Katifori, Eleni	Gräwer, Johannes / Manik, Debsankha	340228	A 174		Introduction to Interactive Network Analysis and Visualization with Python	0,5	16-17 Apr 2015
Wolf, Fred	Florez, Juan / Kirli, Koray	340229	A 182		Introduction to dynamical modelling in biology	1.0	18-19 May 2015
Wolf, Fred	Florez, Juan	340230	A 183		Designing graphical user interfaces in MATLAB	1.0	4-5 May 2015
<b>Extended Methods Courses</b>							
Stühmer, Walter / Hörner, Michael /	Stühmer, Walter / Hörner, Michael / Schlüter, Oliver	340095	E 03		ENI Electrophysiology Training (ENI-ELECTRAIN)	4.0	4-15 May 2015