

## GGNB: Short Methods Courses & Method Seminars; Extended Methods Courses Program April - September 2018 (summer semester 2018)

- Registration possible two months before the course month -

### Laboratory Animal Science:

Courses are offered by the UMG. To register, please contact Dr. Monique Silter (monique.silter@med.uni-goettingen.de). The fees for the course have to be covered by the department of the participant.

**Theoretical part:** online course. The passing of a written exam is prerequisite for participation in the practical part.

### Practical part:

9-13 Apr 2018	Modules 1-6
15-17 May 2018	Modules 1, 2, 4 (3 days)
18-22 Jun 2018	Modules 1-6
17-21 Sep 2018	Modules 1-6
22-26 Oct 2018	Modules 1-6
26-30 Nov 2018	Modules 1-6

Department/Group	Supervisor(s)	UniVZ	ID	Title of Course	Credits	Date
<b>Biochemistry</b>						
Feußner, Ivo	Herrfurth, Cornelia	340045	A 016	Introduction to lipid analysis	1.0	10-12 Sep 2018
Rehling, Peter	Wang, Cong / Hartmann, Magnus	340074	A 053	Blue-native PAGE analysis of membrane protein complexes	1.0	10-11 Apr 2018
Konrad, Manfred	Konrad, Manfred	340240	A 151	Introduction to steady-state kinetics	1.0	Jun/Jul 2018 (tba)
Kaplan, Öyküm	Manuela Schwark, Öyküm Kaplan	340205	A 179	<i>In vivo</i> gene induction in cortical neurons by <i>in utero</i> electroporation	0.5	5 Apr 2018
Rehling, Peter	Kochbeck, Lioba / Poerschke, Sabine	340211	A 163	Native membrane protein complex isolation	0.5	19 Apr 2018
Rehling, Peter	Gomkale, Ridhima	340212	A 164	<i>In vitro</i> import into purified mitochondria	1.0	12-13 Apr 2018
Jahn, Reinhard	Angel Perez-Lara / Pribecevic, Sonja	340255	A 210	Study of membrane binding proteins involved in exocytosis	1.0	12-13 Apr 2018
Katschinski, Dörthe	Maithily Nanadikar	340340	A 234	Using biosensors to study cellular redox processes	0.5	Juli 2018 (tba)
<b>Molecular Biology &amp; Genetics</b>						
Gruber, Jens	Gruber, Jens	340022	A 068	Mechanisms of RNA silencing	1.0	May 2018 (tba)
Fischer, André	Stefan Irniger, Cemil Kerimoglu, Sakib Sadman	340218	A 084	Chromatin-immunoprecipitation and epigenomic gene-profiling in the adult brain	1.0	Aug/Sep 2018 (tba)
Jakobs, Stefan	Jensen, Nickels	340226	A 173	Strategies to design photoswitchable fluorescent proteins and their application in nanoscopy	1.0	10-11 Apr 2018
Pöhlmann, Stefan	Pöhlmann, Stefan	350032	A 160	Molecular Biology of HIV replication and pathogenesis	1.0	Wednesdays

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<b>Molecular Biology &amp; Genetics (continued)</b>						
Hörandl, Elvira	Appelhans, Marc / Pätzold, Claudia	340247	A 188	Introduction into the bioinformatic analysis of next generation sequence data	1.0	25-27 Sep 2018
Cramer, Patrick et al.	Cramer, Patrick et al.	340316	A 214	Genome Science Lecture Series	1.0	Fridays
<b>Cell Biology &amp; Microbiology, Imaging</b>						
Mitkovski, Mišo	Georg Wieser	340066	A 098	Introduction to image processing in biology with ImageJ	1.0	12-13 Apr 2018
Pöhlmann, Stefan	Michael Winkler, Markus Hoffmann, Heike Hofmann-	340221	A 171	Viral transduction systems	1.0	24-26 Apr 2018
Großhans, Jörg	Deqing Kong	340163	A 124	Live imaging and laser ablation	1.0	13-14 Aug 2018
Frahm, Jens	Jakob Klosowski, Jost Kollmeier	340210	A 162	Basic principles of MRI and Real-Time MRI	1.0	<i>tba</i>
Wouters, Fred	Wouters, Fred / Bunt, Gertrude	340321	A 220	Bioimage analysis for microscopists	1.0	<i>Jun/Jul 2018 (tba)</i>
Roos, Christian	Roos, Christian	340322	A 221	NGS-based identification of gastrointestinal parasites	1.0	14-15 May 2018
Roos, Christian	Roos, Christian	340323	A 222	Assessing biodiversity: Investigating the blood meal of leeches	1.0	28-29 May 2018
Roos, Christian	Roos, Christian	340324	A 223	NGS-based identification of the gut microbiome	1.0	4-5 Jun 2018
Luther, Stefan	Raúl Quiñonez, Vineesh Kappadan	340326	A 226	Optical Mapping for Cardiomyocyte Cultures and Isolated Hearts	1.0	24-25 Apr 2018
Zimmermann, Wolfram-Hubertus	Norman Liaw / Meyer / Tiburcy	340342	A 236	Construction and Phenotyping of Engineered Heart Muscle	1.5	<i>tba</i>
<b>Developmental Biology, Anatomy &amp; Histology</b>						
Stadelmann-Nessler, Christine	Katja Schulz	340033	A 060	Non-radioactive in situ hybridization	1.0	<i>tba</i>
Bucher, Gregor	Bucher, Gregor	340083	A 145	Orthologs and Paralogs – how they evolve and how to distinguish them	0.5	13 Apr 2018
Shcherbata, Halyna	Shcherbata, Halyna	340085	A 056	Introduction to basic histology techniques	1.0	29-30 May 2018
Dobbelstein, Matthias	Lizé, Muriel	340220	A 181	Mouse preparation with emphasis on the respiratory tract	1.0	27 Apr 2018
Ebert, Antje	Ebert, Antje	340320	A 219	Human induced pluripotent stem cells (iPSCs), their differentiation and genomic modification via CRISPR/Cas9	1.0	23-24 May 2018
Stadelmann-Nessler, Christine	Stadelmann-Nessler, Christine	340345	A 237	Pathology of human neurodegenerative diseases, e.g. Alzheimer's disease, Parkinson's disease, ALS	0.0	<i>tba</i>

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<b>Developmental Biology, Anatomy &amp; Histology (continued)</b>						
Stadelmann-Nessler, Christine	Stadelmann-Nessler, Christine	340346	A 238	Pathology of multiple sclerosis and related disorders	0.0	<i>tba</i>
Wilting, Jörg	Ch. Zelent	340341	A 235	Transmission electron microscopy	3.0	<i>tba</i>
<b>Vertebrate Animal Models</b>						
Bähr, Mathias	Lingor, Paul	340219	A 139	In vitro and in vivo models for Parkinson's disease research	0.5	10 Apr 2018
Wirths, Oliver	Wirths, Oliver	340199	A 175	Neurodegenerative Diseases: Behavioral and neuropathological analysis of transgenic mouse models	1.0	<i>Jun 2018 (tba)</i>
<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	5-6 Apr 2018
Rizzoli, Silvio	Manuel Maidorn, Katharina Richter, Katharina Seitz, Sinem Sertel	340039	A 089	High resolution microscopy and novel probes to study the physiology of synapses	1.0	12-13 Apr 2018
Pardo, Luis	Pardo, Luis	340040	A 063	Patch clamp	1.0	16-18 May 2018
Wichmann, Carolin	Chakrabarti, Rituparna	340196	A 149	Basic methods of transmission electron microscopy - from tissue preparation to 3D reconstruction	1.0	<i>Jun 2018 (tba)</i>
Gollisch, Tim	Helene Schreyer / Mohammad Khani	340185	A 140	Multielectrode Array Recordings from the Retina	1.0	4-6 Jun 2018
Brose, Nils	Gideons, Erin / Krüger, Dilja	340236	A 153	Isolation of synaptic compartments for quantitative biochemical analysis	0.5	22 Jun 2018
Fiala, André	Fiala, André	340319	A 216	Neuronal circuit dissection in <i>Drosophila</i>	1.0	3-5 Apr 2018
Strenzke, Nicola	Lopez de la Morena, David	340239	A 193	Single Neuron Recordings from Mouse Auditory Nerve	0.5	24 Apr 2018
Nave, Klaus-Armin	Möbius, Wiebke	340328	A 228	A practical introduction into electron microscopy	1.0	16-17 Apr 2018
Nicolas Lemus-Diaz	Nicolas Lemus-Diaz	340331	A 230	Analysis of miRNA posttranscriptional regulation by Flow Cytometry	1.5	25-27 Apr 2018
Moser, Tobias	Philippe Jean, Lina Maria Jaime Tobon, Ozge Demet Ozcete, Mattia Nova, Carlos Duque Afonso	340337	A 232_1	Sensory processing in the cochlea: morphological and electrophysiological approaches to understand hearing	2.0	9-12 Apr 2018

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<b>Molecular &amp; Cellular Neuroscience, Electrophysiology (continued)</b>						
Moser, Tobias	Philippe Jean, Lina Maria Jaime Tobon, Ozge Demet Ozcete, Mattia Nova, Carlos Duque Afonso	340337	A 232_2	Sensory processing in the cochlea: morphological and electrophysiological approaches to understand hearing	2.0	23-26 Apr 2018
Gärtner, Jutta	Susann Diegmann, Annika Wolf	340339	A 233	Next Generation Sequencing to identify the disease gene in unclear neurogenetic disorders	1.0	Jul/Aug 2018 (tba)
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<b>Theoretical, Systems &amp; Behavioral Neuroscience</b>						
Gail, Alexander	Glaser, Beatrix	340043	A 073	Introduction to Matlab in Systems Neuroscience	1.0	18 & 25 Apr 2018
Antal, Andrea / Strenzke, Nicola	Strenzke, Nicola / Hoch, Herhard / Nova, Mattia	340054	A 041	Auditory and visual evoked potentials	1.0	17-18 Apr 2018
Treue, Stefan / Gail, Alexander	Treue, Stefan / Gail, Alexander / Clíodhna Quigley	340231	A 168	Visual psychophysics - From theory to experiment	1.0	May/June 2018 (tba)
Geisel, Theo / Timme, Marc / Wolf, Fred	Geisel, Theo / Timme, Marc / Wolf, Fred	350036	A 022	Theoretical and Computational Neuroscience: Collective Dynamics of Biological Neural Networks II	2.0	Fridays
<b>Structural Biology</b>						
Bennati, Marina	Tomas Orlando, Shu-Hao Liou	340055	A 003	EPR-Spectroscopy	1.5	18-20 Apr 2018
Pena, Vlad	Csaba Kibedi, Jana Schmitzova, Mateusz Mieczkowski	340059	A 102	Crystallization of biological macromolecules	1.0	7-8 May 2018
Ficner, Ralf	Neumann, Piotr	340130	A 103	X-ray crystallography	2.5	23-27 Apr 2018
Güttler, Johannes	Antonio Ibanez	340332	A 231	Introduction to 3D printing: macro and micro scale	1.0	23-24 Apr 2018
<b>Biophysics, Bioinformatics and Statistics</b>						
Steinem, Claudia	Ingo Mey, Jonas Schäfer	340067	A 133	Using biosensors to study analyte-ligand interactions: basic principles and applications	0.5	21 Jun 2018
Sayedeh Hussaini /Torsten Eckstein	Sayedeh Hussaini /Torsten Eckstein	340156	A 123	Introduction to Programming in Python	1.5	9-11 Apr 2018
Grubmüller, Helmut / Schmidt, Christoph F.	Grubmüller, Helmut / Schmidt, Christoph F.	340166	A 025	Current Topics in Biophysics – Lecture Series	1.0	Fridays
Steinem, Claudia	Andreas Janshoff / Ingo Mey / Stefan Nehls / Hannes Witt	340235	A 169	Atomic Force Microscopy vs. Scanning Ion Conductance Microscopy; versatile tools to study surfaces and surface properties	1.0	18 Apr 2018
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	Perera Bel, Julia	440727	A 176	Introduction to R and RNA-Seq analysis	1.0	4-6 Apr 2018

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<b>Biophysics, Bioinformatics and Statistics (continued)</b>						
Enderlein, Jörg	Thiele, Jan Christoph / Sharma, Akshita / Katti, Aditya	340295	A 211	Basics of fluorescence microscopy and spectroscopy in biophysics	0.5	<i>tba</i>
Godec, Aljaz	Lapolla, Alessio	340296	A 212	Advanced Computational Methods in Statistical Mechanics	4.0	Wednesdays
Nietert, Manuel	Nietert, Manuel	340317	A 215	An introduction to reproducible handling of scientific data and concordant analysis using KNIME workflows	0.5	16-17 Apr 2018
Bertens, Guus	Bertens, Guus	340261	A 200	Introduction to Data Science	2.5	14-18 May 2018
Liepe, Juliane	Liepe, Juliane	340325	A 224	Modelling Biological Systems	0.5	17 Apr 2018
Söding, Johannes	Roth, Christian / Seidel, Annika	340327	A 227	Writing good scientific code	1.0	11-12 Jun 2018
Strenzke, Nicola	Pelgrim, Maike	340330	A 229	Structured approaches to analyze large quantities of experimental data: Relational Databases and Structured Query Language (SQL)	0.5	20 Apr 2018
<b>Extended Methods Courses</b>						
Stühmer, Walter / Hörner, Michael / Schlüter, Oliver	Stühmer, Walter / Hörner, Michael / Schlüter, Oliver	340095	E 003	ENI Electrophysiology Training (ENI-ELECTRAIN)	4.0	7-18 May 2018