UNIVERSITÄT
LEIPZIG

M.Sc. Neuroscience & Behavioural Biology

Prof. Dr. Robert J. Kittel
Dpt. of Animal Physiology
Institute of Biology, Talstrasse 33

Agnes Wohlfarth
Study Office
Talstrasse 33

Neuroscience and Behavioural Biology

Leipzig: a research centre for life sciences

Faculty of Life Sciences

- **Institute of Biology**
- Institute of Biochemistry
- Institute of Psychology

Leipzig: a research centre for life sciences

Partners in research and teaching (selection)

- Faculties of Medicine, Chemistry, Physics and Mathematics at Leipzig University
- iDiv: German Centre for Integrative Biodiversity Research
- BBZ: Centre for Biotechnology and Biomedicine
- SIKT: Saxonian Incubator for Clinical Translation
- IZI: Frauenhofer Institute for Cell Therapy and Immunology
- UFZ: Helmholz-Centre for Environmental Research
- PFI: Paul Flechsig Institute - Centre of Neuropathology and Brain Research
- IOM: Leibnitz Institute of Surface Engineering
- MPI EVA: Max-Planck-Institute for Evolutionary Anthropology
- MPI CBS: Max-Planck-Institute for Human Cognitive and Brain Sciences
- MPI MiS: Max-Planck-Institute for Mathematics in the Sciences
- Graduate School Brain Dynamics

Leipzig: a research centre for life sciences

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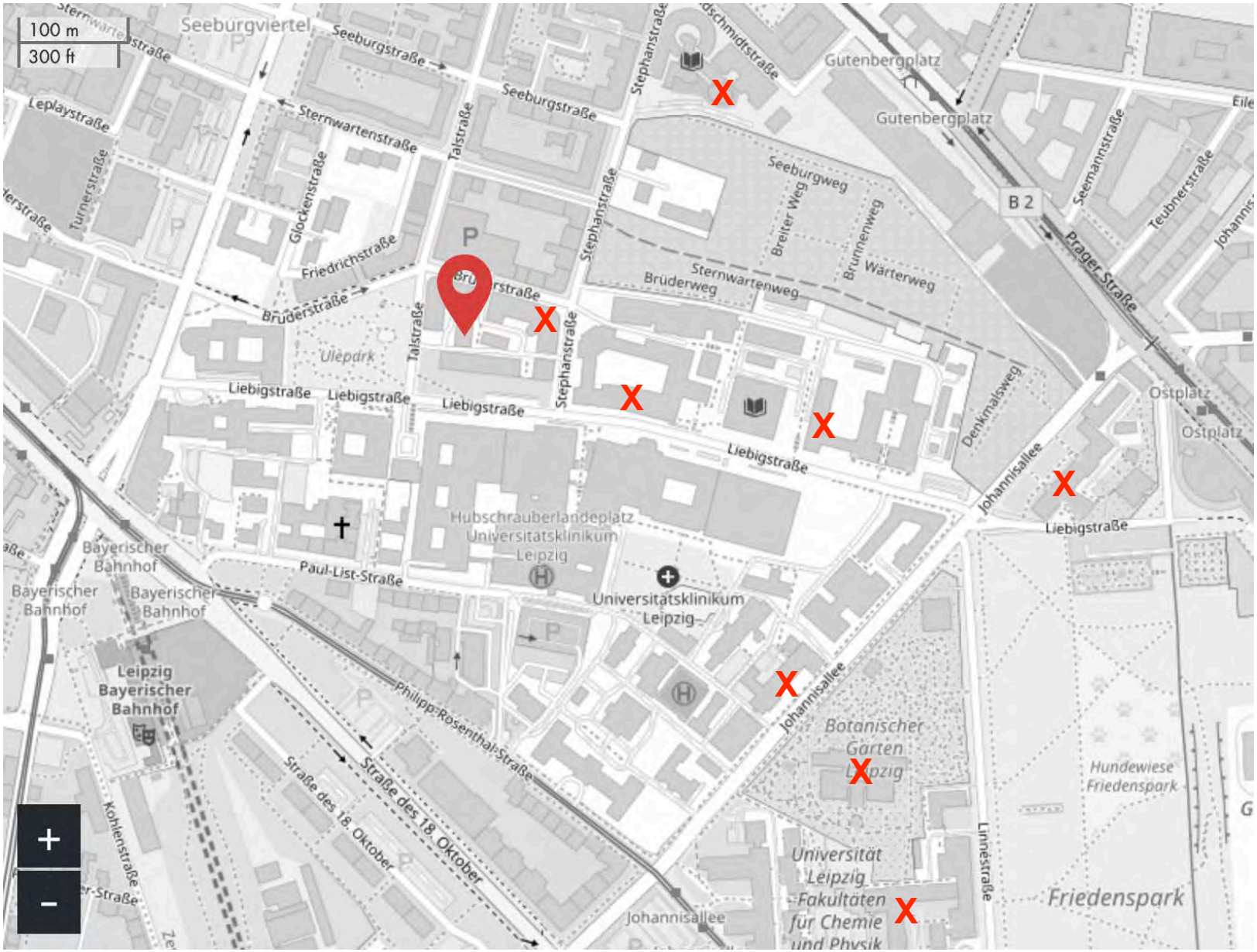
International hotspot for Neuroscience and Behavioural Biology

Leipzig: a research centre for life sciences



Humboldtian model of higher education

Menzel, Berlin, 1836

Formulated by Wilhelm von Humboldt (Alexander's brother)

- Research and teaching are interwoven
- The M.Sc. course is tightly connected with our research work and current scientific results
  - Research-oriented training for scientific careers in academia and science-related professions
  - Promoting independent and critical thinking
  - **Interdisciplinary** qualification for doctoral studies

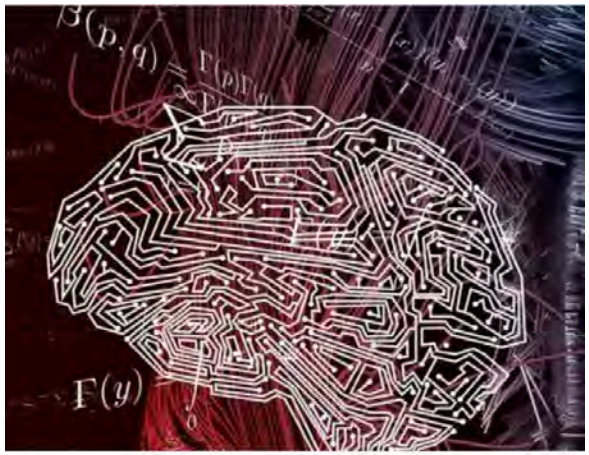
Research areas at the Faculty of Life Sciences

Brain Dynamics

Molecular and Cellular Communication

Sustainable Systems and Biodiversity

Complex Matter



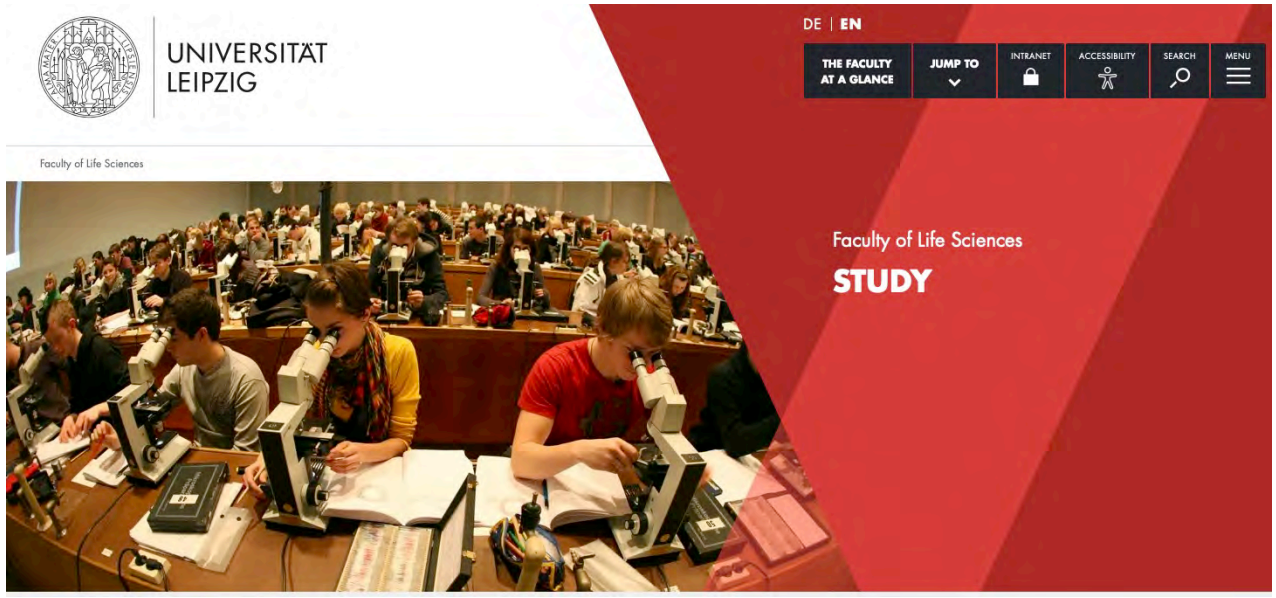
Mathematical and Computational Sciences

Modern Diseases

General organisation

Programme organisation

- Taught in English
- 4 semesters
- Modular structure



Modules

- Compulsory & compulsory elective
- Individual modules:
  - 1 semester
  - 10 credit points
  - Typically lectures, seminars, practical courses
- 9 modules (each 10 credit points)
  + M.Sc. thesis (30 credit points)
  = 120 credit points in total

General organisation

Semester 1	Module 1	Module 3	Module 5	
	Module 2	Module 4		External Module
Semester 2	Module 6	Module 8	Module 10	
	Module 7	Module 9	Module 11	External Module
Semester 3	Practical Module	Theoretical Module	Laboratory Module	
Semester 4	M.Sc. project			

General organisation

Choose a total of 6 elective modules (3 per semester):

- 5 core modules + 1 external module

Semester 1	Module 1	Module 3	Module 5	
	Module 2	Module 4		External Module
Semester 2	Module 6	Module 8	Module 10	
	Module 7	Module 9	Module 11	External Module
Semester 3	Practical Module	Theoretical Module	Laboratory Module	
Semester 4	M.Sc. project			

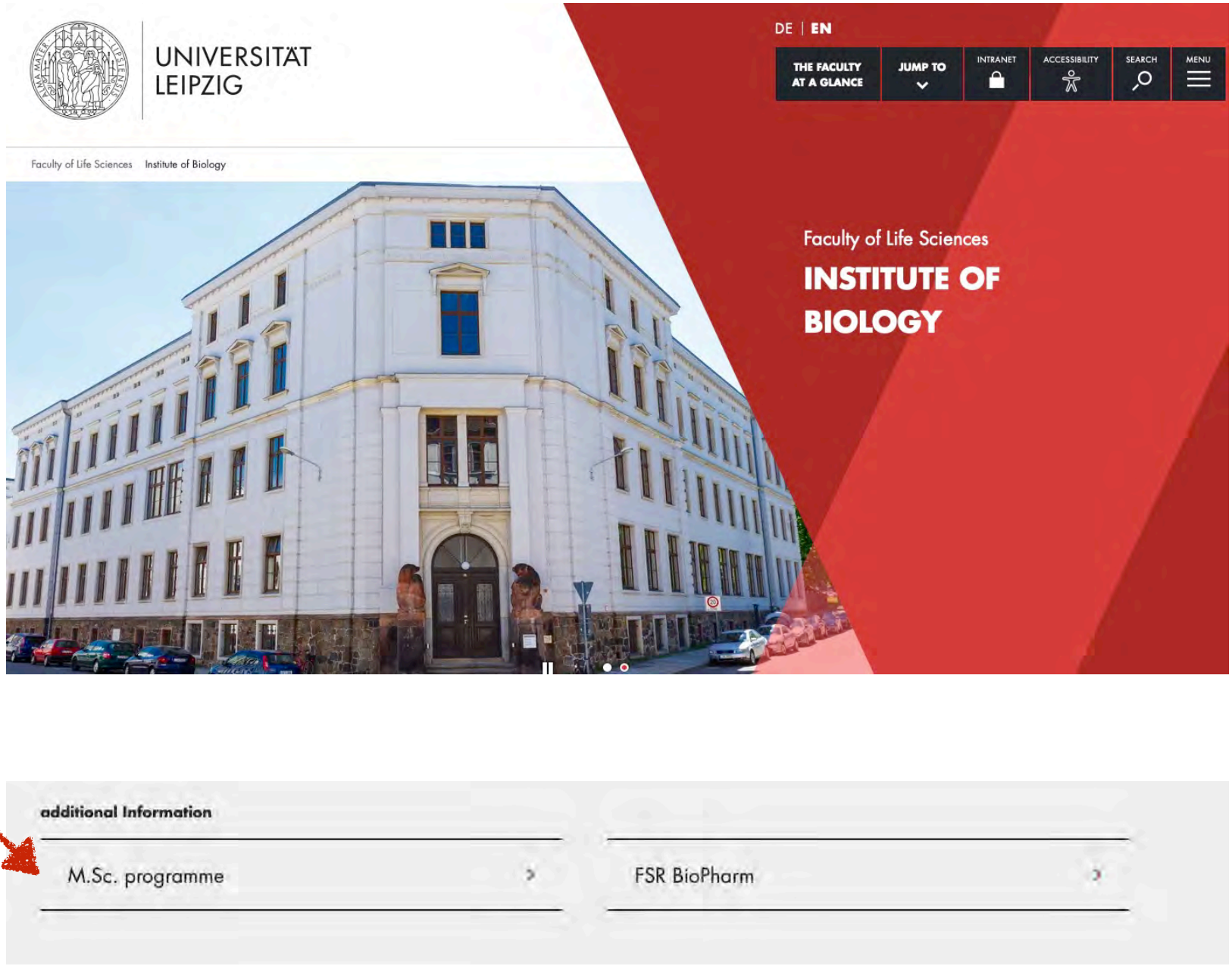
General organisation

3 compulsory modules to

- widen your horizon: Practical Module **NOT** at the Institute of Biology
- prepare for your M.Sc. thesis: Theoretical Module & Laboratory Module (ideally) in the lab of your M.Sc. project

Semester 1	Module 1	Module 3	Module 5	
	Module 2	Module 4		External Module
Semester 2	Module 6	Module 8	Module 10	
	Module 7	Module 9	Module 11	External Module
Semester 3	Practical Module	Theoretical Module	Laboratory Module	
Semester 4	M.Sc. project			

Detailed information on the 3rd semester



General organisation

Semester 1	Module 1	Module 3	Module 5	
	Module 2	Module 4		External Module
Semester 2	Module 6	Module 8	Module 10	
	Module 7	Module 9	Module 11	External Module
Semester 3	Practical Module	Theoretical Module	Laboratory Module	
Semester 4	M.Sc. project			

M.Sc. project

- Written thesis based on original research
- Supervised research project
  - Scientific contribution

eLife

RESEARCH ADVANCE

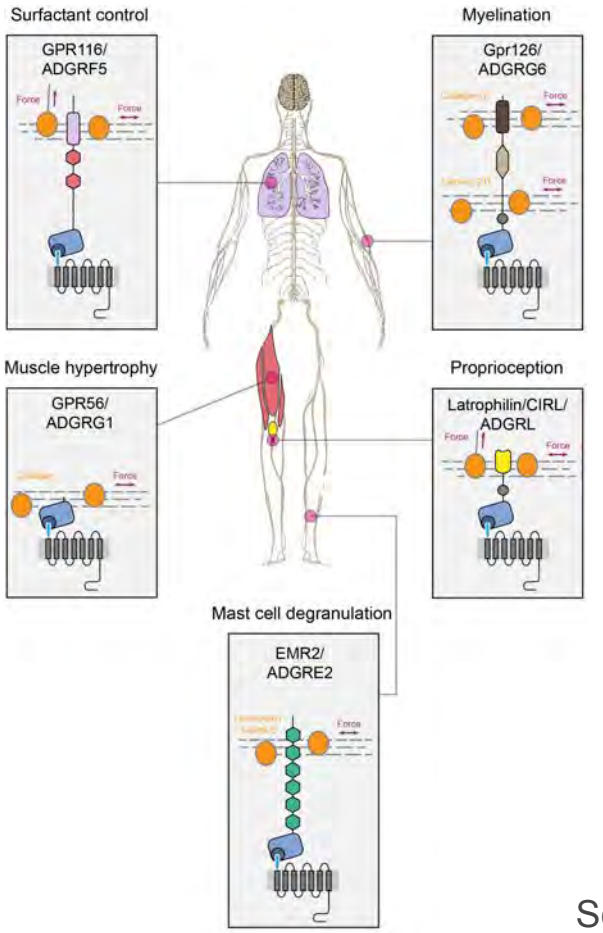
Antinociceptive modulation by the adhesion GPCR CIRL promotes mechanosensory signal discrimination

Sven Dannhäuser[1,2], Thomas J Lux[3], Chun Hu[4], Mareike Selcho[1,2], Jeremy T-C Chen[3], Nadine Ehmann[1,2], Divya Sachidanandan[1,2], Sarah Stopp[1,2], Dennis Pauls[1,2], Matthias Pawlak[5], Tobias Langenhan[6], Peter Soba[4], Heike L Rittner[3]*, Robert J Kittel[1,2]*

[1]Department of Animal Physiology, Institute of Biology, Leipzig University, Leipzig, Germany; [2]Carl-Ludwig-Institute for Physiology, Leipzig University, Leipzig, Germany; [3]Center for Interdisciplinary Pain Medicine, Department of Anaesthesiology, University Hospital Würzburg, Würzburg, Germany; [4]Neuronal Patterning and Connectivity, Center for Molecular Neurobiology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany; [5]Department of Neurophysiology, Institute of Physiology, University of Würzburg, Würzburg, Germany; [6]Rudolf Schönheimer Institute of Biochemistry, Division of General Biochemistry, Medical Faculty, Leipzig University, Leipzig, Germany

M.Sc. modules

- The course programme covers different levels of biological organisation:
  - from molecular and cellular neurobiology to systems and clinical neuroscience and ethology.
  - Connecting mechanisms of brain function in physiological and pathological settings with animal interactions with the environment.



Scholz et al., *Handb Exp Pharmacol*, 2016

Core modules

Behavioural		Molecular/Cellular	Systems/Bridge
Group	Module #	Module title	Semester
Lukas, McElreath (MPI)	31-BIO-216	Human behavior, ecology and culture	Winter
Widdig	11-BIO-212	Primate behavioural ecology	Winter
Liebal	11-BIO-223	Diversity of cognition	Summer
Vernot (MPI)	11-BIO-805	Molecular anthropology	Summer
Schönwiesner	11-BIO-213	Brain mechanisms of perception and cognition	Summer
Schönwiesner	11-BIO-211	How the brain works	Winter
Thum	11-BIO-214	Behavioural neurogenetics	Summer
Stassart, Hallermann (MedFak)	09-BIO-225	Clinical and translational neuroscience	Summer
Kittel	11-BIO-222	Neuroimaging	Summer
Kittel	11-BIO-215	Molecular mechanisms of neuronal communication	Winter
Langenhan	11-BIO-224	Biochemical principles and molecular tools in neurobiology	Winter

External/Cooperation modules this winter semester

Modules offered in cooperative study programs:

07-201-2508 Gründungsmanagement

10-202-2205 Graphen und Biologische Netze

10-202-2207 Sequenzanalyse und Genomik

11-BCH-0701 Bioorganische Chemie

11-BIO-0710 Soil Ecology

11-BIO-201 Quantitative Methods in Biodiversity Sciences

11-BIO-202 Molecular Evolution

11-BIO-203 Molecular Ecophysiology and Biotechnology of Plants

11-BIO-204 Structure, Function and Ecology of Microbial Communities

11-PSY-11003 Biologische Psychologie

Must be confirmed and saved during the confirmation period in TOOL

Please check whether the language of instruction is English.

Virology: external module in the summer semester

Master of Science Biologie (ab WS 2024/25)

Akademischer Grad	Modulnummer	Modulform
Master of Science	**MolMed-09-BIO-0825**	**Wahlpflicht**

Modultitel	**Molekulare Medizin, Virologie** Nichtbiologisches Wahlpflichtmodul
Modultitel (englisch)	**Molecular Medicine, Virology** Non-biological Compulsory Elective Module
Empfohlen für	2. Semester
Verantwortlich	Medizinische Fakultät, Institut für Medizinische Mikrobiologie und Virologie, FB Virologie
Dauer	1 Semester
Modulturnus	Jedes Sommersemester
Lehrformen	Vorlesung „Molekulare Medizin, Virologie“ (3 SWS) = 30 h Präsenzzeit und 70 h Selbststudium = 100 h Seminar „Molekulare Medizin, Virologie“ (1 SWS) = 15 h Präsenzzeit und 35 h Selbststudium = 50 h Praktikum „Molekulare Medizin, Virologie“ (6 SWS) = 60 h Präsenzzeit und 90 h Selbststudium = 150 h

Module registration

UNIVERSITÄT LEIPZIG

Fakultät für
Lebenswissenschaften
Studienbüro

Module Registration Information for Winter Term 2024/25

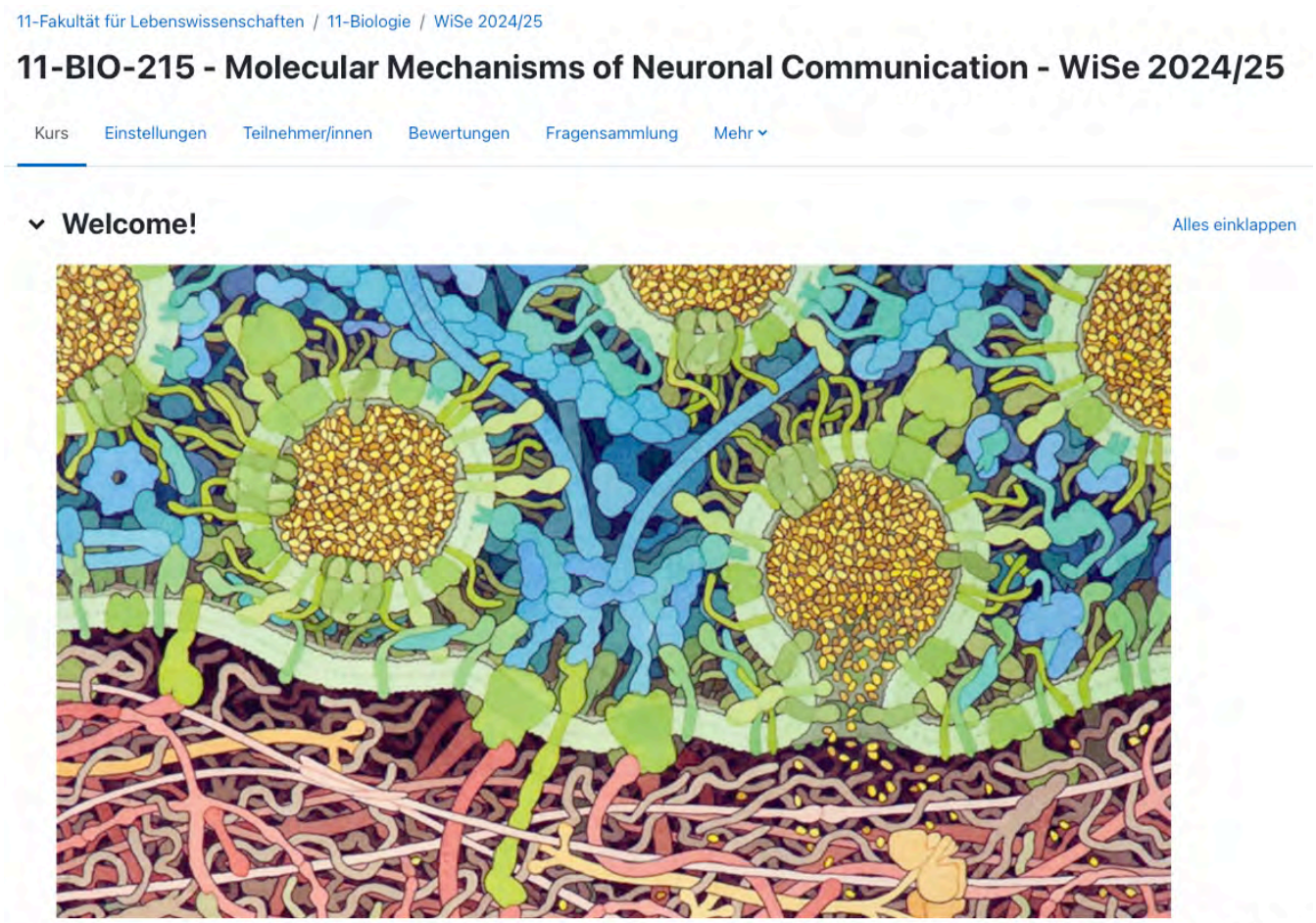
M. Sc. Neuroscience and Behavioural Biology (NBB)

The module registration for the M.Sc. Neuroscience and Behavioural Biology takes place online via TOOL. Instructions for using TOOL in German can be found here and in English here. Registration is only possible if you have re-registered for the winter semester by paying the semester fee on time.

Schedule for module registration:

Online registration: **(all modules)**	**30th September, noon – 07th October, 11:59 pm**
Confirmation of modules: **(only electives)**	**08th October, 2:00 pm – 09th October, 11:59 pm**

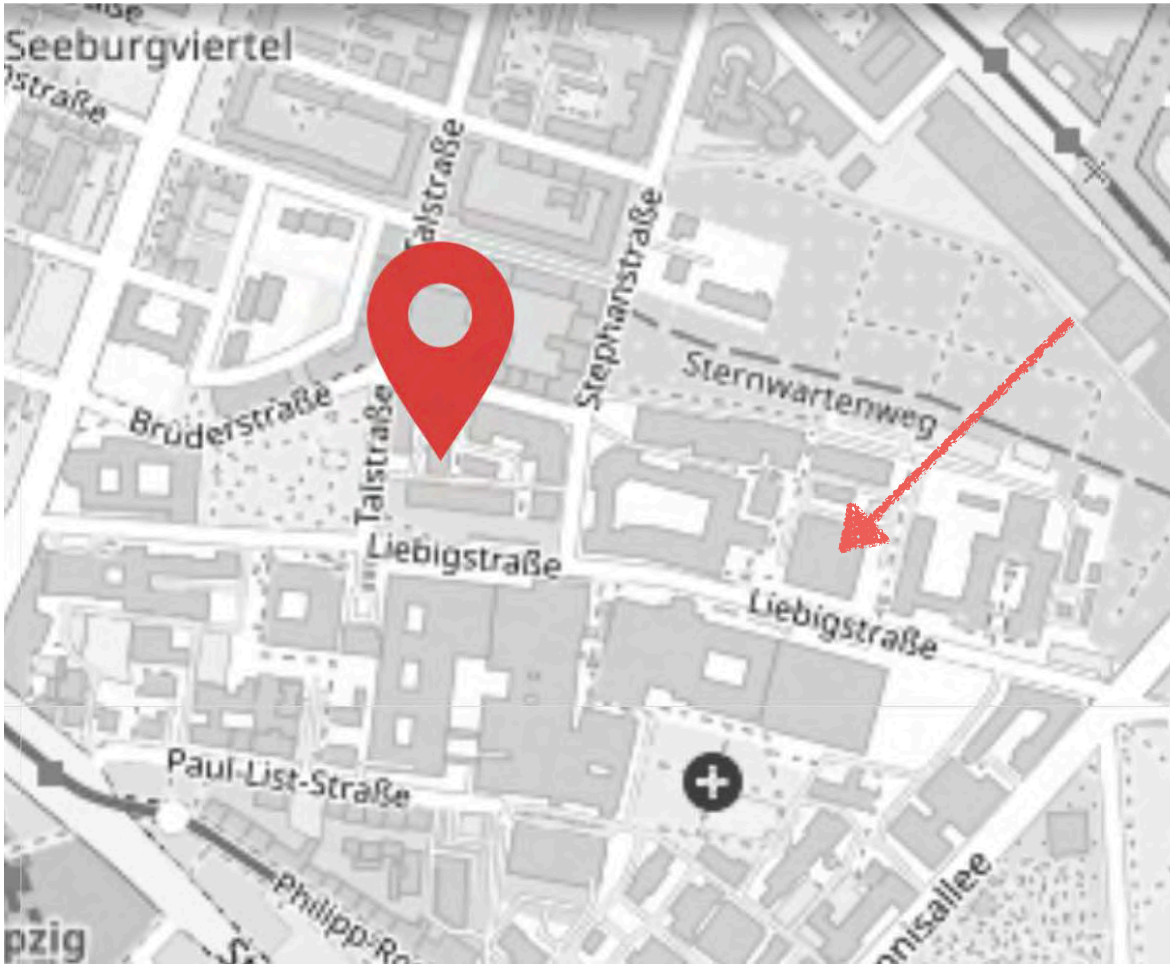
Moodle study platform - https://moodle2.uni-leipzig.de



- Course content
  - e.g. file download
- Interaction platform for students and lecturers
  - e.g. discussion forums
- Current information and updates
  - e.g. exam dates

Library Medicine and Natural Sciences

- Liebigstrasse 23/25
- https://www.ub.uni-leipzig.de/standorte/medizinnaturwissenschaften/



Mentoring Programme

If you did not attend the introduction contact the Study Office.

- Get in touch with your mentor by email to arrange a first meeting!

Further information

- People
  - Dean: Prof. Marc Schönwiesner
  - Dean of Studies: Prof. Irene Coin
  - M.Sc. Course Coordinator: Prof. Robert J. Kittel

- Homepage Institute of Biology https://www.lw.uni-leipzig.de/institut-fuer-biologie/
- Homepage Study Office https://www.lw.uni-leipzig.de/studium/studienbuero/
- Homepage Student Representatives https://fsr-biopharm.de

Student representatives

FSR BIOPHARM

KOMM AUF UNS ZU !

Vorstand

Absolvent*innen-
verabschiedung

- **Hochschulpolitik**
- **Veranstaltungen**
- **Studierendenvertretung**

FSR
BIOPHARM

fsr_biopharm

info@fsr-biopharm.de

fsr-biopharm.de

Student representatives

Einführungswoche Wintersemester 2024/25

Montag 07.10.24	Dienstag 08.10.24	Mittwoch 09.10.24	Donnerstag 10.10.24	Freitag 11.10.24
10-11 Uhr **Einführungs-veranstaltung Biochemie** (Gr HS Ta33) **+ Pharmazie** (Beckmann-HS Brü34)	ab 10 Uhr **Fahrradtour** Fakultät Ta33	10 - 14 Uhr **Laborverkauf** Raum 135 Ta33		
11:30-12:30 Uhr **Einführungs-veranstaltung Biologie** (Gr HS Ta33) **+ Biologie Lehramt** (Beckmann-HS Brü34)		ab 14:30 Uhr **How to Uni + Vereinsvorstellung** Gr HS Ta33	14 - 18 Uhr **Erstirallye Biologie + Biologie Lehramt** Treffpunkt: Gr HS Ta33	14 - 18 Uhr **Erstirallye Biochemie + Pharmazie** Treffpunkt: Gr HS Ta33
11-14:30 Uhr **Laborverkauf** Raum 135 Ta33			ab 18:30 Uhr **Erstiabend Biologie + Biologie Lehramt** Gr HS Ta33	ab 18:30 Uhr **Erstiabend Biochemie + Pharmazie** Gr HS Ta33
ab 18 Uhr **Erstigrillen** Ulepark	ab 18 Uhr **Master Ersti Abend** Fakultät Ta33			

Weitere Veranstaltungen:

Montag, 14.10.24, 12 Uhr
Einführungsveranstaltung Masterstudiengänge
Kl HS Ta33

Samstag, 12.10.24, ab 14 Uhr
Katalytische Triade
Hof hinter der Chemiefakultät (Johannisallee 29)

Sonntag, 13.10.24, ab 11 Uhr
Brunch
Fakultät Ta33

Montag, 14.10.24
Einführungsveranstaltungen der Fakultät für Lebenswissenschaften
Details siehe studiengangsspezifische Wochenpläne

Montag, 14.10.24, ab 19 Uhr
Kneipentour
Fakultät Ta33

Veranstaltungsorte:
Gr HS Ta33 - Großer Hörsaal (Talstraße 33)
Kl HS Ta33 - kleiner Hörsaal (Talstraße 33)
Beckmann HS Brü 34 - Beckmannhörsaal (Brüderstraße 34)
Raum 135 Ta 33 - Seminarraum 135 (Talstraße 33)
Ulepark - gegenüber der Talstraße 33

Legende: Veranstaltungen FSR BioPharm - Veranstaltungen Bioelferrat - Veranstaltung Fakultät
Achtung!
Die hier aufgeführten Termine sind noch nicht fest! Die aktuellste Version findet ihr aber immer auf unserer Website.
Bei Fragen erreicht ihr uns über Instagram (@fsr_biopharm) oder schreibt uns eine Mail (info@fsr-biopharm.de).
Alle weiteren Infos und den aktuellsten Plan findest du über den QR-Code auf unserer Website (www.fsr-biopharm.de).

FSR BIOPHARM

NBB Master Erstigruppe

fsr_biopharm

info@fsr-biopharm.de

fsr-biopharm.de