

List of elective modules 2021/22 update: 1.3.2022

Subject area A: Basic Neuroscience

- (A5) Clock Mechanisms in Mammalian Neurons and Neuroendocrine Cells (FB16) **Maronde**
- (A7) Neurobiology of the Nematode *Caenorhabditis elegans* (FB14) **Gottschalk**
- (A8) Neuropharmacology (FB14) **Klein**
- (A9) Cellular Physiology of Dopaminergic Neurons (FB16 & FB12) **Röper/Schneider**
- (A10) Neurophysiology and Behaviour (FB 15) **Grünewald**
- (A12) The Neuro-Vascular Interface (FB 16) **Liebner**
- (A14) Embryonic and adult neurogenesis (FB 16) **Schulte**
- (A15) Electrophysiological recordings in freely behaving animals (FB 16) **Sigurdsson**
- (A17) Auditory Function and Dysfunction: Behavior and Physiology (FB 15) **Gaese**
- (A18) Information Processing in the Central Auditory System (FB 15) **Gaese**
- (A19) Neuronal basis of acoustic communication in mammals (FB 15) **Hechavarría/Kössl**
- (A21) Cellular, molecular and systemic Neurobiology in mouse and zebrafish (FB15) **Acker-Palmer**
- (A22) Optogenetics and calcium-recordings in freely behaving animals (FB16) **Duvarci/Kössl**
- (A23) Cellular and molecular mechanisms in neurovascular disorders (FB15) **Hefendehl/Kössl**
- (A24) Deciphering brain activity during natural behaviour in real time (ESI/FB15) **Havenith/Schölvinck/Kössl**
- (A25) Neuroscience of Navigation and Self-Motion (ESI/FB15) **Laurens/Kössl**

Subject area B: Clinical Neuroscience

- (B2) Physiology and Pharmacology of Pain (FB 16) **Niederberger**
- (B4) Plasticity in Hippocampus – Morphology, Physiology, and Clinical Relevance (FB16) **Radic/Jungenitz/Deller**
- (B6) Brain Damage and Neuroprotection (FB16) **Kögel/Rami**
- (B8) Clinical Neuroimaging (FB16) **Berkefeld-Weidauer (Hattingen, Polkowski)**
- (B9) Clinical Auditory Neuroscience (FB 16) **Baumann**
- (B10) Experimental and Translational Psychiatry (FB16) **Slattery**
- (B11) Neurobiological human cell models (FB 16) **Chiocchetti**
- (B12) Neuroimaging Biomarkers in Psychiatry (FB 16) **Ecker**
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Subject area C: Cognitive and Computational Neuroscience

- (C3) Modeling and Simulation (FB12) **Wittum**
- (C4) Virtual Hippocampus – Introduction to Computational Neuroscience (FB 16) **Jedlicka**
- (C8) Systems Neuroscience – Sensorimotor and Cognitive Networks (FB 16) **Kell**
- (C10) Computational Neuroanatomy – quantitative analysis and modelling (ESI/FB16) **Cuntz/Kössl**
- (C11) Computational Modeling of Neuronal Plasticity (FIAS/FB 15) **Triesch**
- (C12) Computational neural dynamics (MPI/FB15) **Tchumatchenko/Kössl (extern)**
- (C13) Models for Neural Circuit Development (MPI/FB 15) **Gjorgjieva/Kössl (extern)**
- (C14) Cognitive Psychology – Attention, Perception & Memory (FB05) **Vo**
- (C15) Developmental Cognitive Neuroscience (FB05) **Shing**

Subject area D: Applied Aspects of Neuroscience

- (D1) Behavioral Biology in Zoos (FB15) **Dierkes**