

## List of elective modules 2022/23 *update: 1.11.2022*

### 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**
- **A9** Dopaminergic Neurons in schizophrenia mouse models (FB16 & FB12) **Diamantopoulou/Röper/Schneider**
- **A10** Neurophysiology and Behaviour (FB 15) **Grünwald**
- **A12** The Neuro-Vascular Interface (FB 16) **Liebner**
- **A14** Genetics and Epigenetics of Neurogenesis and Gliogenesis (FB 16) **Schulte**
- **A15** Recording neuronal activity 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**
- **A21** Cellular, molecular and systemic Neurobiology in mouse and zebrafish (FB15) **Kirchmaier/Acker-Palmer**
- **A22** Optogenetics and calcium-recordings in freely behaving animals (FB16) **Duvarci**
- **A23** Cellular and molecular mechanisms in neurovascular disorders (FB15) **Hefendehl**
- **A24** Deciphering brain activity during natural behaviour in real time (ESI/FB15) **Havenith/Schölvinck**
- **A25** Neuroscience of Navigation and Self-Motion (ESI/FB15) **Laurens**

### Subject area B: Clinical Neuroscience

- **B2** Physiology and Pharmacology of Inflammatory Reactions (FB 16) **Niederberger**
- **B4** Plasticity in Hippocampus – Morphology, Physiology, and Clinical Relevance (FB16) **Radic/Jungenitz/Deller**
- **B6** Brain Damage and Neuroprotection (FB16) **Kögel/Rami**
- **B7** Clinical Paediatric Neurology (FB16) **Kieslich**
- **B8** Clinical Neuroimaging (FB16) **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**

### Subject area C: Cognitive and Computational Neuroscience

- **C1** Modern non-invasive Methods in Human Cognition research (FB16) **Kaiser**
- **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**
- **C11** Computational Modeling of Neuronal Plasticity (FIAS/FB 15) **Triesch**
- **C12** Computational neural dynamics **Tchumatchenko (extern)**
- **C15** Developmental Cognitive Neuroscience (FB05) **Shing**
- **C16** Cognitive and perceptual processes in the human brain (ESI) **Rademaker**