

|   |                          |   |
|---|--------------------------|---|
| <b>Module title</b>   |                          | <b>Abbreviation</b>                         |
| Clinical Neurobiology 1   |                          | 03-TN-NB1-152-m01                           |
| <b>Module coordinator</b>   |                          | <b>Module offered by</b>                    |
| Institute of Clinical Neurobiology  |                          | Faculty of Medicine                         |
| <b>ECTS</b>   | <b>Method of grading</b> | <b>Only after succ. compl. of module(s)</b> |
| 5   | numerical grade          | --  |
| <b>Duration</b>   | <b>Module level</b>      | <b>Other prerequisites</b>                  |
| 1 semester  | graduate                 | --  |
| <b>Contents</b>   |                          |   |
| <p>Students will get a theoretical introduction and amplification of topics in clinical neurobiology. The following topics will be discussed: introduction to neurons and glia, ion channels and membrane potential, ion channelopathies, synapses, transmitter release, NMJ, myasthenia gravis, cerebellum, basal ganglia, ataxia and Morbus Parkinson, somatosensory system, touch, pain, schizophrenia and autism spectrum disorders, disorders of cognition, muscle and muscle diseases, anatomy and function of the motor system, spinal reflexes, motoneuron diseases, hippocampus, learning and memory, anterograde amnesia, visual agnosia, cortex and the limbic system, emotions, disorders of conscious and unconscious mental processes, attention, smell and taste and hearing, sleep, EEG, epilepsy, vision and diseases of the visual system. The accompanied literature seminars are based on fundamental and current literature on lecture-relevant topics to discuss experimental and methodological approaches and with this promoting translational thinking. Using student presentations of current research results, the earned knowledge in neurobiology is recessed</p> |                          |   |
| <b>Intended learning outcomes</b>   |                          |   |
| <p>Students who successfully completed this module are able to remind and understand the current theoretical concepts in neurobiology. Furthermore, students are able to classify clinical aspects of neurobiology with the focus to disease mechanisms at molecular, cellular, and physiological levels. Based on current experimental data evaluation, students are able to critical read and evaluate current publications in neurobiology as well as extract relevant information from recent publications.</p>   |                          |   |
| <b>Courses</b> (type, number of weekly contact hours, language – if other than German)  |                          |   |
| V (2)   |                          |   |
| <b>Method of assessment</b> (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)  |                          |   |
| a) written examination (30 to 60 minutes, including multiple choice questions) or c) oral examination of one candidate each (30 to 60 minutes) or d) oral examination in groups of up to 3 candidates (approx. 30 to 60 minutes)  |                          |   |
| <b>Allocation of places</b>   |                          |   |
| --  |                          |   |
| <b>Additional information</b>   |                          |   |
| --  |                          |   |
| <b>Workload</b>   |                          |   |
| 150 h   |                          |   |
| <b>Teaching cycle</b>   |                          |   |
| --  |                          |   |
| <b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)  |                          |   |
| --  |                          |   |
| <b>Module appears in</b>  |                          |   |
| <p>Master's degree (1 major) Translational Neuroscience (2015)<br/>           Master's degree (1 major) Translational Neuroscience (2017)<br/>           Supplementary course Translational Medicine (2018)<br/>           Master's degree (1 major) Translational Medicine (2018)</p>  |                          |   |

Master's degree (1 major) Translational Neuroscience (2018)  
Supplementary course Translational Neuroscience (2018)  
Master's degree (1 major) Translational Neuroscience (2022)  
Supplementary course Translational Neuroscience (2022)