**Module title**  
Neuroinflammation

**Abbreviation**  
03-TN-NI-172-m01

**Module coordinator**  
Department of Neurology, Section of Developmental Neurobiology and Institute of Virology and Immunobiology

**Module offered by**  
Faculty of Medicine

**ECTS**  
5

**Method of grading**  
Numerical grade

**Only after succ. compl. of module(s)**  
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**Duration**  
1 semester

**Module level**  
Unknown

**Other prerequisites**  
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**Contents**

Introduction to neural cells and structures relevant for neuroinflammation (glial cells, myelin, myelin molecules, synapses, nodes of Ranvier), components of the innate immune system I: macrophages and microglial cells, components of the innate immune system II: dendritic cells, NK cells, granulocytes; antigen presentation; lymphatic organs, components of the adaptive immune system: lymphocytes and antigen recognition, the phenomenon of tolerance and autoimmunity, experimental models for neuroinflammation (EAE, cuprizone, EAN); the BBB, clinics, pathogenesis and therapy of multiple sclerosis, role of inflammation in primarily neurological/neurodegenerative disorders (Alzheimer's disease; inherited neuropathies).

**Intended learning outcomes**

Students who successfully completed this module will have acquired solid insights into fundamental and disease-relevant aspects of neuroimmunology and neuroinflammation. They will have learned to critically read scientific publications and will have been trained in the ability to extract relevant information from the original scientific literature.

**Courses**

(type, number of weekly contact hours, language — if other than German)

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**Method of assessment**

(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) or e) presentation (20 to 45 minutes)

**Language of assessment:** English

**Allocation of places**

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**Additional information**

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**Referred to in LPO I**

(examination regulations for teaching-degree programmes)

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**Module appears in**

Master's degree (1 major) Translational Neuroscience (2017)

Master's degree (1 major) Translational Neuroscience (2018)

Supplementary course Translational Neuroscience (2018)