SECOND FACULTY OF MEDICINE CHARLES UNIVERSITY

Akademie věd České republiky
Strategie AV21
Špičkový výzkum ve veřejném zájmu

QUALITAS
Kvalitní život ve zdraví i nemoci

You are warmly invited to hear the lecture by

Dr. Albert J. Becker

Professor for Molecular Neuropathology

Department of Neuropathology
University of Bonn

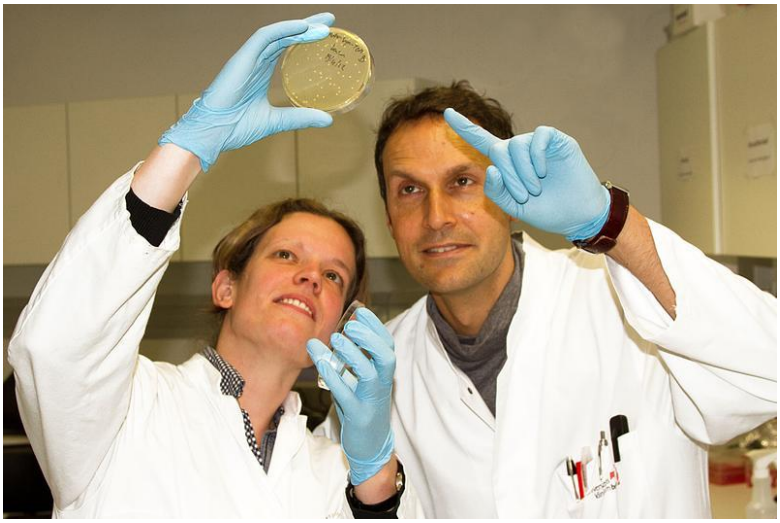
MECHANISMS OF EPILEPTOGENESIS: INSIGHTS FROM RECENT MOUSE MODELS

on

MONDAY 26th NOVEMBER AT 11.00 AM

Venue:
Seminar room
Department of Neurology
Second Faculty of Medicine
V Úvalu 84, 150 06 Prague 5

In his talk, Prof. Becker will present how new animal models of epilepsy can contribute to our better understanding of mechanisms behind epilepsy due to malformations of cortical development and epilepsies of autoimmune origin.



The major scientific interests of Prof. Becker's group focuses on the neuropathological basis of epilepsies. Seizures frequently initiate in circumscribed areas of the brain. Many respective patients are pharmacoresistant. By neurosurgical removal of the epileptogenic focus, seizures can often be controlled. Respective neurosurgical biopsies represent a unique prerequisite for molecular pathological approaches in order to provide an improved understanding of the aetiology and pathogenesis to develop novel treatment strategies. Complementarily, we are using model systems of different complexity to gain insights in epileptogenesis, i.e. brain tissue reorganization after a transient insult that finally leads to a spontaneously epileptic focus. We have major research foci on acquired ion channelopathies in epileptogenesis, their underlying transcriptional control mechanisms and the role of 'epileptic neurons' as pacemakers of aberrant network synchronization. We further concentrate on acquired ion channelopathies in temporal lobe epilepsy, transcriptional control mechanisms in epileptogenesis and the role of microglia in epilepsy-associated neurodegeneration. Currently, we are exploring the molecular pathology of brain malformations (especially focal cortical dysplasia) and molecular mechanisms behind limbic encephalitis and epilepsy of autoimmune origin.

http://epilepsyresearch.de/BeckerLab/researches