

# Neuroscience Colloquium

Winter Semester 2017/2018

Lectures are held Thursdays, **5 p.m.**

Venue: Paul-Ehrlich Lecturehall, Virchowweg 4, next to CCO

## Cenk Ayata

DEPARTMENT OF NEUROLOGY, NEUROVASCULAR RESEARCH UNIT MASSACHUSETTS,  
HARVARD MEDICAL SCHOOL, CAMBRIDGE, USA

# Spreading depolarizations in ischemic brain: Physiological triggers and their clinical implications

Dr. Ayata is a neurologist and a clinician-scientist dedicated to translational research on neurovascular function and dysfunction. Since his fellowship under Professor Michael A. Moskowitz in 1994, he dedicated his time to build and integrate electrophysiological and multimodal optical imaging techniques focusing on neurovascular research areas including stroke, migraine, cerebral amyloid angiopathy, and CADASIL. With independent grant supports from American Heart Association, NIH, and Deane Foundation, Dr. Ayata explores therapies to augment perfusion and oxygenation in acute stroke (e.g., hyperoxia, induced hypertension, Rho-kinase inhibition), the pathophysiological roles of injury depolarizations in stroke, and targeting spreading depression in migraine.

Dr. Ayata is expert in non-invasive in vivo investigations of cerebrovascular physiology and pathophysiology in mice under full systemic physiological control. In collaboration with Dr. Joutel, Dr. Ayata defined a novel enhanced CSD-susceptibility phenotype in Notch3R90C mutant mice, providing an explanation for the increased incidence and severity of migraine with aura in CADASIL patients.

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**Location:** Paul Ehrlich-Hörsaal,  
Charité – Universitätsmedizin Berlin, Campus Mitte  
Virchowweg 4, next to CCO

**Date:** Thursday, December 14<sup>th</sup>, 5 p.m.

**Host:** Matthias Endres

The Neuroscience Colloquium is supported by:  
**DZNE e.V.** German Center for Neurodegenerative Diseases;  
**Einstein Center** for Neurosciences; **NeuroCure** Cluster of Excellence.  
Organized by NeuroCure and Institute for Neurophysiology: Christian Rosenmund;  
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