

# SOPRANI Meeting Linz (25–27 February)

The European Training Network for Smart NeuroMonitoring to Support Precision Medicine in Acute Central Nervous Injury (SOPRANI) is an international and interdisciplinary network dedicated to training PhD students in the field of advanced neuromonitoring. The consortium brings together experts from multiple disciplines to promote innovation and collaboration in neurocritical care research. As part of the training program, each partner institution hosts a thematic meeting. The Linz meeting will focus on monitoring and imaging technologies in neurocritical care patients. It is designed as an interactive module aimed at providing participants with a comprehensive overview of invasive and non-invasive multimodal neuromonitoring and neuroimaging techniques. Through lectures delivered by PhD students and PIs, combined with hands-on workshops and discussions, the meeting will foster active knowledge exchange and interdisciplinary collaboration. For more information about the network: <https://www.soprani.eu/>

## Location lectures (Loft):

ADM Building, 9th Floor; MED Campus I.

Note: Coffee is included; lunch is not.

**PhD Student Speakers:** Eloïse Baud, Aneeta Chacko, Eugenia Driusso, Love Ilochonwu, Malaika Mohammad, Cansu Rehber, Fadime Tokmak, Sara Turella, W. Xu

## Internal Speakers

**Univ.-Prof. Dr. Raimund Helbok** - Head of Neurology

**Univ.-Prof. Dr. Franz Fellner** - Head of Radiology

**Prim. Dr. Michael Sonnberger** - Head of Neuroradiology

**Ass.-Prof. OA Dr. Matthias Gmeiner** - Assistant Professor of Neurosurgery

**Ass.-Prof. Dr. Erich Kobler** - Assistant Professor in Machine and Deep Learning in Medical Imaging

**Dr.in J. Tas** - Postdoctoral Researcher, Neurology

## External Speakers

### Bart Depreitere

Bart Depreitere is neurosurgeon and professor at KU Leuven specialized in traumatic brain injury and neurocritical care. His research focuses on advanced neuromonitoring, including cerebral autoregulation research, AI-driven ICP prediction, and he is the lead of the European SOPRANI Network.

### Jens Dreier

Jens Dreier is a professor at Charité – Universitätsmedizin Berlin and works as a neurologist and neuroscientist. He is internationally recognized for his research on spreading depolarizations and their role in brain injury, bridging experimental neuroscience and clinical neurocritical care.

### Geert Meyfroidt

Geert Meyfroidt is a neurointensivist and professor at KU Leuven. His research focuses on advanced neuromonitoring, including cerebral autoregulation research, AI-driven ICP Predictions, and he contributes to major international traumatic brain injury research initiatives.

### Dick Moberg

Dick Moberg has been active in neuromonitoring research and product development since the late 1970s. An engineer by training, he has founded several companies and developed innovative technologies for brain monitoring, including Moberg Analytics. He is particularly experienced in early-stage medical technology development and translational innovation.

### Baptiste Balanca

Baptiste Balanca is an anesthesiologist and Head of the Department of Neuroanesthesia and Neurocritical Care (Hospices Civils de Lyon), with a PhD in Neuroscience. His clinical and research interests include neurocritical care, acute brain injury, spreading depolarizations, brain metabolism, and electrophysiology.

## **Wednesday, 25 February 2026**

**9:00-9:15** Opening- R. Helbok

### **Non-invasive neuromonitoring & Clinical Bedside Assessment**

9:15-9:35 Neurological exam in neurocritical care - C. Rehber

9:45-10:05 Pupillometry in neurocritical care - A. Chacko

10:15-10:35 Ultrasound: Duplex, TCCD, and TCD basics in neurocritical care - M. Mohammad

### **10:45-11:00 Coffee Break**

### **Invasive neuromonitoring**

11:00-11:20 Invasive brain oxygen monitoring in neurocritical care - F. Tokmak

11:30-11:50 Cerebral microdialysis in neurocritical care - S. Turella

12:00-12:20 ICP monitoring in neurocritical care - E. Driusso

*12:30-15:30 Workshops (Accessible to SOPRANI students only)*

### **Neuroimaging & Optical Monitoring**

15:30-15:50 NIRS in neurocritical care - F. Gonçalves

16:00-16:20 Neuro-imaging techniques I: CT & perfusion in neurocritical care - L. Ilochonwu

16:30-16:50 Neuro-imaging techniques II: MRI in neurocritical care- W.Xu

## **Thursday, 26 February 2026**

### **Innovations and Emerging Technologies in Neurocritical Care**

9:00-9:20 surface EEG in neurocritical care - E. Baud

9:30-9:50 artificial intelligence and medicine - G. Meyfroidt

10:00-10:20 Ischemic stroke from a neuroradiologist's perspective - M. Sonnberger

10:30-10:50 Virtual neurosurgery: Medical EDUcation in Surgical Aneurysm clipping (MEDUSA) - M. Gmeiner

### **11:00-11:20 Coffee Break**

11:30-12:30 3D Anatomy for Clinical Neuroimaging - F. Fellner

*12:30-15:00 Workshops (Accessible to SOPRANI students only)*

### **Invasive EEG & Spreading Depolarizations**

15:00- 15:45 Detection of spreading depolarizations and pitfalls - J. Dreier

## **Friday, 27 February 2026**

### **Multimodal Neuromonitoring & AI**

9:00-9:20 Evolution of multimodal neuromonitoring - D. Moberg

9:30-9:50 Implementation of multimodal neuromonitoring in clinical practice - J. Tas

10:00-10:20 artificial intelligence and Imaging techniques - E. Kobler

### **10:30-10:45 Coffee break**

### **Clinical cases**

10:45-12:15 Pitfalls in the interpretation of neuromonitoring and imaging data - R.Helbok and B. Depreitere

### **NEUROVISTA**

12:15-12:30 - B.Balanca