

# Central Neuropathic Pain: From Mechanisms To Treatment

Thursday, 31<sup>st</sup> March 2022, 13.15–17.45 Uhr



Supported by



**Dear Ladies and Gentlemen, dear Colleagues,**

It is our pleasure to invite you to a virtual symposium on central neuropathic pain. The event will take place in a virtual format on Thursday, 31st March 2022.

Neuropathic pain is a frequent and debilitating sequela accompanying a number of primary neurological diseases. As clinicians and scientists we are regularly facing a number of clinically relevant challenges due to a gap in our pathophysiological understanding of neuropathic pain. This not only makes a confident diagnosis difficult, but also affects the development of an effective treatment plan. Central neuropathic pain following stroke and spinal cord injury is therefore one of the research foci of the recently founded Stroke Research Center at the Department of Neurology in Bern.

With this symposium, we would like to provide a comprehensive overview of the topic ranging from neurophysiology of nociceptive processing to clinical diagnosis and state-of-the-art therapeutic approaches. Special emphasis will be placed on novel neurophysiological techniques and emerging concepts in neuromodulation of pain.

We are fortunate to have a renowned, international faculty participating in this symposium. We are also proud to bring together scientists and clinicians from various disciplines as part of this truly interdisciplinary symposium.

We hope we have already sparked your interest and would like to welcome you at the first Bernese Virtual International Symposium entitled «Central Neuropathic Pain: From Mechanisms To Treatment».

Yours sincerely,

**Prof. Dr. med. Claudio Bassetti**

**Prof. Dr. med. Andrew Chan**

**Prof. Dr. med. Marcel Arnold**

**Prof. Dr. med. Adrian Guggisberg**

**Dr. med. Jan Rosner**

# Scientific Program

## 13.15 Introduction/Welcome

Prof. Dr. med. Andrew Chan

Dr. med. Jan Rosner

## From Bench to Bedside (Chair: Prof. Konrad Streitberger, MD)

### 13.30 Principles of Nociceptive Coding in the Anterior Cingulate Cortex

Prof. Thomas Nevian, PhD

### 13.45 Central Neuropathic Pain Syndromes: Etiology and Diagnosis

Jan Rosner, MD

### 14.00 Discussion

## Neurophysiology of «Pain Pathways» (Chair: Kathleen Seidel, MD)

### 14.15 Modality-specific Somatosensory Evoked Potentials

Philipp Hüllemann, MD

### 14.30 Pain-autonomic Interaction:

#### Insights from Experimental and Clinical Pain Models

Paulina Scheuren, PhD & Michèle Hubli, PhD

### 14.45 Discussion

## Thalamic Networks in Pain Modulation (Chair: Jan Rosner, MD)

### 15.00 The Impact of Optically-induced Thalamic Lesions on Pain Sensitivity

Carolina Gutierrez Herrera, PhD

### 15.15 Deep Brain Stimulation for Post-Stroke Pain

Andreas Nowacki, MD

### 15.30 Discussion

## 15.45 Break

### State-of-the-art Pain Therapy (Chair: Prof. Adrian Guggisberg, MD)

- 16.00 **Invasive and Non-invasive Cortical Stimulation for Post-Stroke Pain**  
Prof. Garcia-Larrea, MD PhD
- 16.15 **Pharmacotherapy for Neuropathic Pain**  
Prof. Finnerup, MD PhD
- 16.30 **Discussion**

### «Big Data» in Pain Research (Chair: Prof. Tobias Nef, PhD)

- 16.45 **Lessons Learned from the German Network on Neuropathic Pain**  
Jan Vollert, PhD
- 17.00 **Tracking Progression of Neuropathic Pain in Longitudinal Studies**  
Prof. John Kramer, PhD
- 17.15 **Discussion**
- 17.30 **Quiz and Prize Ceremony**  
Jan Rosner, MD & Paulina Scheuren, PhD

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## General information



The symposium will take place exclusively virtually. To participate, please register at [kommunikation.neurologie@insel.ch](mailto:kommunikation.neurologie@insel.ch).

## Credits

SNG 4 Credits, SGKN 4 Credits, SSIPM 1 Credit, SPS 4 Credits, SGAIM (pending).  
You will receive a confirmation of participation.

# Faculty

**Prof. Dr. med. Claudio L. A. Bassetti**

Chairman and Head, Department of Neurology, Bern University Hospital, Inselspital, University of Bern, Bern, Switzerland  
Dean, Medical Faculty, University of Bern, Switzerland

**Prof. Dr. med. Andrew Chan**

Head, Medical Division Neuro, Bern University Hospital, Inselspital  
Vice-Chairman, Department of Neurology  
Head Universitäres Ambulantes Neurozentrum, Department of Neurology, Bern University Hospital, Inselspital, University of Bern, Bern, Switzerland

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**Dr. med. Jan Rosner**

Junior Attending & Group Leader, Stroke Research Center, Department of Neurology, Bern University Hospital, Inselspital, University of Bern, Bern, Switzerland

**Prof. Nanna Brix Finnerup, MD PhD**

Director, Danish Pain Research Center, Department of Clinical Medicine, Aarhus University, Denmark

**Prof. Luis Garcia-Larrea, MD PhD**

Research Director, Central Integration of Pain (NeuroPain) Lab, Lyon Neuroscience Research Center and Neurological Hospital, INSERM, Université Claude Bernard, Bron, France

**PD Dr. Carolina Gutierrez Herrera**

Principal Investigator, Center for Experimental Neurology (ZEN), Department of Neurology, Bern University Hospital, Inselspital, University of Bern, Bern, Switzerland

**PD Dr. med. Philipp Hüllemann**

Medical Director and Chairman, Department of Neurology, MEDICLIN Klinikum Soltau, Germany & Principal Investigator, Department of Neurology, Division of Neurological Pain Research and Therapy, Department of Neurology, Christian-Albrechts-Universität Kiel, Kiel, Germany

**Prof. John Kramer, PhD**

Principal Investigator, International Collaboration on Repair Discoveries, University of British Columbia, Vancouver, British Columbia, Canada

**Prof. Dr. Tobias Nef**

Extraordinarius, ARTORG Center for Biomedical Engineering Research & Department of Neurology, University of Bern, Bern, Switzerland

**Prof. Dr. Thomas Nevian**

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