

# 19<sup>TH</sup> INTERDISCIPLINARY CEREBROVASCULAR SYMPOSIUM

---

**From August 17<sup>th</sup> to 19<sup>th</sup>, 2023**

Forum Genève, Rue de Lausanne 11-19, 1201 Geneva



# Présentation

---

The Interdisciplinary Cerebrovascular Symposium has become a premier meeting, gathering experts with different backgrounds: geneticists, biologists, clinicians, engineers and more recently, data analysts and modellers using AI with a common aim to better understand cerebrovascular pathophysiology and develop new tools to diagnose and treat cerebrovascular diseases. The first ICS took place in Geneva in 2004 and was organised by Prof. Daniel A. Rüfenacht, Prof. Pedro Lylyk and Prof. Makoto Ohta.

The 2023 opus will cover physiology of the cerebrovascular autoregulation and implications in ischemic and haemorrhagic stroke, as well as mechanisms of vessel wall remodelling, aneurysm formation and progression, arterio-venous malformation and arterio-venous fistula natural history modelling and treatments, as well as discussions on cavernous angioma, vasospasm, hydrocephalus and cerebrovascular disautonomy induced by trauma. The sessions will focus on key questions addressed by experts from different backgrounds ending with a moderated round-table discussion. It has been decided to leave enough time between the sessions and organise social events to promote collaborations.

Prof. Philippe Bijlenga,

Prof. Sven Hirsch,

Dr. Sandrine Morel,

Prof. Paolo Machi,

Dr. Emmanuel Carrera,

Dr. Julien Haemmerli,

Prof. Karl Schaller

# Program

Thursday, August 17<sup>th</sup> 2023

---

**7:30 Registration and coffee**

**8:00 Welcome**

Prof. Daniel Rüfenacht and Prof. Philippe Bijlenga

**8:15 Cerebrovascular pathology and brain health: major challenges and tools to succeed**

*Chair: Prof. Philippe Bijlenga*

Prof. Jonathan Rosand

**9:00 Break**

## **Ischemic stroke**

*Chairs: Prof. Jonathan Rosand, Dr. Emmanuel Carrera*

**9:15 Federating and data share in clinical neurosciences**

Prof. Philippe Ryvlin

**9:30 Genetics of ischemic stroke**

Dr. Aniket Mishra

**9:45 Molecular atlas of the human brain vasculature across development, adulthood, and disease**

Dr. Thomas Wälchli

**10:00 Blood biomarkers of underlying stroke etiology**

Prof. Mira Katan

**10:15 Thrombolysis in ischemic stroke: numerical modeling and in-vitro validations**

Prof. Bastien Chopard

**10:30 Break**

## **Ischemic stroke and modeling**

*Chairs: Dr. Emmanuel Carrera, Prof. Philippe Bijlenga*

- 10:45 Genetic cause of childhood stroke**  
Dr. Joel Fluss
- 11:00 Molecular and radiographic signatures of ischemic stroke etiology and outcomes in retrieved thrombi**  
Dr. Vincent Tutino
- 11:15 ER-mitochondria contact sites: a potential therapeutic target for ischemic stroke**  
Prof. Yves Gouriou
- 11:30 Mathematical models of the cerebral microcirculation and oxygen transport to tissue**  
Prof. Stephen J. Payne
- 11:45 Functional monitoring of brain perfusion**  
Dr. Colette Boex
- 12:00 Lunch and Poster Discussion**

## **Challenges and sharing experience**

*Chairs: Prof. Philippe Bijlenga, Prof. Paolo Machi*

- 13:00 Effective and ineffective medical and interventional treatments of vertebral artery ischemic disease**  
Prof. Patrik Michel
- 13:15 Surgical options for extracranial vertebral artery ischemic disease**  
Prof. Fady Charbel
- 13:30 Advanced Neuroimaging of cerebral hemodynamics and clinical implications**  
Prof. Luca Regli
- 13:45 Future directions in medical VR training: Challenges and opportunities**  
Dr. Paul Zikas
- 14:00 Break**

**14:30 Degenerative brain diseases and effect on microcirculation**

*Chair: Prof. Philippe Bijlenga*

Prof. Hugh Markus

**15:15 Break**

**Hemorrhagic stroke**

*Chairs: Dr. Emmanuel Carrera, Dr. Julien Haemmerli*

**15:30 Genetics of ICH and ERICH study**

Dr. Stacie Demel

**15:45 Causal ICH classification (CLAS-ICH)**

Dr. Martina Göldlin

**16:00 Minimally invasive hematoma removal**

Prof. Raphael Guzman

**16:15 Break**

**Cavernoma**

*Chairs: Prof. Raphael Guzman, Prof. Luca Regli*

**16:30 Natural history and clinical management**

Prof. Philipp Dammann

**16:45 Brain stem cavernoma management**

Prof. Amir Dehdashti

**17:00 Cavernoma inflammation and microbiot**

Dr. Andrea Cardia

**17:15 Informal discussion and demos in the lobby**

**Free evening**

# Program

Friday, August 18<sup>th</sup> 2023

---

**7:30 Coffee**

**8:00 Welcome**

Prof. Sven Hirsch

**8:15 Intracranial aneurysms What do we know, do and should expect**

*Chair: Prof. Sven Hirsch*

Prof. Gabriel Rinkel

**9:00 Break**

## **IA initiation**

*Chairs: Prof. Gabriel Rinkel, PhD Richard Redon*

**9:15 Genetics of intracranial aneurysms**

Dr. Mark Bakker

**9:30 Primary cilia control endothelial permeability by regulating expression and location of junction proteins**

Dr. Mannekomba Diagbouga

**9:45 Intracranial aneurysm, sex-dependent characteristics**

Dr. Sandrine Morel

**10:00 Break**

## **Detection and classification of IA**

*Chairs: Prof. Sven Hirsch, Dr. Vincent Tutino*

**10:15 Genetics of familial aneurysm**

PhD Richard Redon

**10:30 Integrating data to model a multifactorial disease - ontology and database representation**

M.Sc. Alban Gaignard

**10:45 Decision support using Bayesian networks**

Dr. Georg Spinner

**11:00 Clinical management of unruptured intracranial aneurysms: lessons learned from the pathobiology of the aneurysm wall**

Prof. Juhana Frösen

**11:15 Break**

## **Cerebrovascular network and flow**

*Chairs: Prof. Sven Hirsch, Prof. Vitor Mendes Pereira*

- 11:30 Cerebrovascular unit, blood brain barrier and ischemia**  
Prof. Susanne Wegener
- 11:45 Circle of Willis configurations in stroke patients**  
Dr. Fabio Muso and Dr. Norman Juchler
- 12:00 Synthetic database of arterial network and its variability**  
Prof. Hitomi Anzai
- 12:15 Experiment-based super-resolution in intracranial aneurysms using direct data assimilation**  
M.Sc. Franziska Gaidzik
- 12:30 Intraoperative LASER Speckle contrast imaging to assess vessel flow in neurosurgery**  
PhD Johannes Goldberg
- 12:45 Cerebral blood flow from MRI**  
Dr. Sepideh Amin-Hanjani
- 13:00 Lunch and Poster Blitz**
- 14:00 Current state of AI in Medicine**  
*Chair: Prof. Philippe Bijlenga*  
Prof. Pietro Lio
- 14:45 Break**

## **IA stabilisation**

*Chairs: Prof. Daniel Rufenacht, Prof. David Hasan*

- 15:00 Hemodynamic stress and endothelial responses in cerebral aneurysms**  
Dr. Naoki Kaneko
- 15:15 EC cells replication and migration**  
Prof. Makoto Ohta
- 15:30 Imaging markers, MRI micelles**  
Prof. Eric Allémann

**15:45 Modelling the mechanobiology of intracranial aneurysm evolution**

Prof. Paul Watton

**16:00 Break**

### **IA progression**

*Chairs: Dr. Sandrine Morel, Prof. Sven Hirsch*

**16:15 Vessel wall structure changes**

Dr. Rikka Tulamo

**16:30 Circulating gene expression signatures as molecular markers for intracranial aneurysm detection and risk stratification**

Dr. Vincent Tutino

**16:45 Subarachnoid haemorrhage flora Japan project**

Prof. Akio Morita

**17:00 Emerging hemodynamic markers of (un)stable aneurysms: Refined ingredients or just more alphabet soup?**

Prof. David Steinman

**17:15 Ultrastructural modeling of wall-thinning and thickening process of intracranial aneurysms**

Dr. Takanobu Yagi

**17:30 Informal discussion and demos in the lobby**

**19:30 Dinner Place de Neuve - Restaurant Le Lyrique**



# Program

Saturday, August 19<sup>th</sup> 2023

---

**7:30 Coffee**

**8:00 Welcome**

Prof. Paolo Machi

**8:15 The cerebrovascular system in the Human Virtual Twin**

*Chair: Prof. Philippe Bijlenga*

Prof. Alfons Hoekstra

**9:00 Break**

## **Vessel wall rupture and treatments**

*Chairs: Prof. Ivan Radovanovic, Prof. Amir Dehdashti*

**9:15 Biomechanics of IA rupture**

Prof. Anne Robertson

**9:30 Intravascular Imaging: High resolution microscopy of the cerebrovasculature and beyond**

Prof. Matt Gounis

**9:45 Genome-wide association study of cerebrovascular dissection**

Prof. Stephanie Debette

**10:00 Life experience regarding intracranial aneurysms management**

Prof. Nobuyuki Sakai

**10:15 Break**

## **Hydrocephalus**

*Chairs: Prof. Daniel Rufenacht, Prof. Philippe Bijlenga*

**10:30 Initial experience using the eShunt device for the treatment of Normal Pressure Hydrocephalus (NPH)**

Prof. Charles Matouk

**10:45 Water and solute dynamic in the brain**

Prof. Stephen J. Payne

**11:00    Craniospinal compliance. Original conception, 50 years of lessons learned, and new approaches for non-invasive measurement**

Dr. Andreas Spiegelberg

**11:15    Deferiprone iron chelation to improve outcome after SAH - UDISCO**

Prof. David Hasan

**11:30    Break**

### **IA treatment**

*Chairs: Dr. Julien Haemmerli, Prof. Karl Schaller*

**11:45    Beyond the border. Dual training in neurovascular surgery**

Dr. Anatoly V. Bervitskiy

**12:00    Novel thin-film implants for the treatment of intracranial aneurysms**

Dr. Prasanth Velvaluri

**12:15    A novel method for brain aneurysms CFD analysis after flow diverter stent implantation based on micro-CT reconstruction**

Dr. Philippe Reymond

**12:30    Coincidental cerebral aneurysms and intracranial tumours**

Dr. Oleg M. Andrushkevich

**12:45    Prediction of appropriate 1<sup>st</sup> coil in coil embolization for intracranial aneurysms using machine learning model**

Prof. Soichiro Fujimura

**13:00    Lunch and Poster Discussions**

**14:00    Simulating IA initiation and progression**

*Chair: Prof. Sven Hirsch*

Prof. Jay Humphrey

**14:45    Break**

## **SAH consequences and outcome**

*Chairs: Prof. Hervé Quintard, Prof. Stephen J Payne*

- 15:00 Genetics of vasospasm and DCI in aneurysmal subarachnoid hemorrhage**  
Prof. Elisa Cuadrado-Godia
- 15:15 CBF autoregulation after SAH: do we need it at all ?**  
Prof. Marek Czosnyka
- 15:30 Cerebrovascular vasospasm modelling**  
Dr. Giulia Pederzani
- 15:45 Genetics of SAH outcome**  
MA, MB, Bchir, MRCS Ben Gaastra
- 16:00 Induced suppression of platelets activity in aSAH Management - iSPASM**  
Prof. David Hasan
- 16:15 Development of a core outcome set for patients with aneurysmal subarachnoid hemorrhage**  
MBBS Chris Andersen
- 16:30 Break**

## **AVM**

*Chairs: Prof. Sven Hirsch, Prof. Karl Schaller*

- 16:45 Why AVMs**  
Prof. Ivan Radovanovic
- 17:00 Biomechanics of AVM**  
Dr. Ali Alaraj
- 17:15 Image-based hemodynamic investigation of vessel wall enhanced intracranial draining veins of arteriovenous malformations**  
M.Sc. Janneck Stahl
- 17:30 Perspectives on robotics and digital technologies in neuro intervention**  
Prof. Vitor Mendes Pereira
- 17:45 Surgical treatment of AVM using mixed reality**  
Dr. Julien Haemmerli
- 18:00 Closing remarks**  
Prof. Karl Schaller and Prof. Philippe Bijlenga
- 18:15 Informal discussion and demos in the lobby**
- 19:00 Walk from Forum Genève to Rotonde du Mont Blanc and lake crossing with Mouette**
- 19:30 Lake dinner - Restaurant de la Plage**

# Intervenants

---

## Opening

Prof. Daniel Rüfenacht, Diagnostic and interventional neuroradiology, Swiss Neuro Radiology Institute (SNRI) and SwissNeuroFoundation (SNF), Zurich, Switzerland

Prof. Philippe Bijlenga, associate professor in neurosurgery at University of Geneva and Geneva University Hospitals, Geneva, Switzerland

## Welcome Day 2

Prof. Sven Hirsch, professor for computational health, Head of Center for Computational Health, Institute of Computational Life Sciences, ZHAW, Zurich, Switzerland

## Welcome Day 3

Prof. Paolo Machi, associate professor, Head of the Unit of interventional neuroradiology at Geneva University Hospitals, Head of Brain Endovascular Therapeutics R&D Lab, Geneva, Switzerland

## Closing

Prof. Karl Schaller, professor and chair of neurosurgery, Department of clinical neurosciences, Geneva University Hospitals, Geneva, Switzerland

## Session chair

Prof. Philippe Bijlenga, associate professor in neurosurgery at University of Geneva and Geneva University Hospitals, Geneva, Switzerland

Dr. Emmanuel Carrera, Department of clinical neurosciences, Geneva University Hospitals, Faculty of medicine, University of Geneva, Geneva, Switzerland

Prof. Amir Dehdashti, Neurosurgery, North Shore University Hospital, New York, USA

Prof. Raphael Guzman, Neurosurgery, University of Basel, Basel, Switzerland

Dr. Julien Haemmerli, Neurosurgery, Department of clinical neurosciences, Geneva University Hospitals, Faculty of medicine, University of Geneva, Geneva, Switzerland

Prof. David Hasan, Department of neurosurgery, Duke University School of Medicine, Durham, North Carolina, USA

Prof. Sven Hirsch, professor for computational health, Head of Center for Computational Health, Institute of Computational Life Sciences, ZHAW, Zurich, Switzerland

Prof. Stephen J Payne, Institute of Applied Mechanics, National Taiwan University, Taipei, Taiwan

Prof. Paolo Machi, associate professor, Head of the Unit of interventional neuroradiology at Geneva University Hospitals, Head of Brain Endovascular Therapeutics R&D Lab, Geneva, Switzerland

Prof. Vitor Mendes Pereira, Department of Neurosurgery, University of Toronto, Toronto, Canada

Dr. Sandrine Morel, Department of clinical neurosciences, Geneva University Hospitals, Department of pathology and immunology, Faculty of medicine, University of Geneva, Geneva, Switzerland

Prof. Hervé Quintard, Head of the Unit of intensive care, Department of acute medicine, Geneva University Hospitals, Geneva, Switzerland

Prof. Ivan Radovanovic, Department of Neurosurgery, University of Toronto, Toronto, Canada

PhD Richard Redon, L'institut du thorax, INSERM, Université de Nantes, Nantes, France

Prof. Luca Regli, Department of Neurosurgery of the University Hospital of Zürich, Zurich, Switzerland

Prof. Gabriel Rinkel, Department of Neurology, University Medical Centre Utrecht, Utrecht, Netherlands

Prof. Jonathan Rosand, Massachusetts General Hospital, Harvard Medical School and Broad Institute of MIT, Boston, Massachusetts, USA

Prof. Daniel Rüfenacht, Diagnostic and interventional neuroradiology, Swiss Neuro Radiology Institute (SNRI) and SwissNeuroFoundation (SNF), Zurich, Switzerland

Prof. Karl Schaller, professor and chair of neurosurgery, Department of clinical neurosciences, Geneva University Hospitals, Geneva, Switzerland

Dr. Vincent Tutino, Department of pathology and Anatomical Sciences, Jacob School of Medicine and Biomedical Sciences, Buffalo, New York, USA

## Keynote lectures

Prof. Alfons Hoekstra, Faculty of Science, Informatics Institute, University of Amsterdam, Amsterdam, Netherlands

Prof. Jay Humphrey, Department of Biochemical Engineering, Yale School of engineering and applied science, New Haven, Connecticut, USA

Prof. Pietro Lio, Department of Computer Science and Technology, University of Cambridge, Cambridge, UK

Prof. Hugh Markus, Department of Clinical Neurosciences, University of Cambridge, Cambridge, UK

Prof. Gabriel Rinkel, Department of Neurology, University Medical Centre Utrecht, Utrecht, Netherlands

Prof. Jonathan Rosand, Massachusetts General Hospital, Harvard Medical School and Broad Institute of MIT, Boston, Massachusetts, USA

## Speakers

Dr. Ali Alaraj, Department of neurosurgery, University of Illinois, Ohio, USA

Prof. Eric Allémann, School of Pharmaceutical Sciences, University of Geneva, Geneva, Switzerland

Dr. Sepideh Amin-Hanjani, Department of neurosurgery, Cleveland Medical Center, Ohio, USA

MBBS Chris Andersen, Northern Clinical School, The University of Sydney, Sydney, Australia

Prof. Hitomi Anzai, Institute of fluid science, Tohoku University, Sendai, Miyagi, Japan

Dr. Mark Bakker, Department of Neurology and Neurosurgery, University

Medical Centre Utrecht, Utrecht, Netherlands

Dr. Colette Boex, Department of clinical neurosciences, Geneva University Hospitals, Faculty of medicine, University of Geneva, Geneva, Switzerland

Dr. Andrea Cardia, Department of Neurosurgery, Hospital di Lugano, Lugano, Switzerland

Prof. Fady Charbel, Department of neurosurgery, University of Illinois Health, Chicago, USA

Prof. Bastien Chopard, Department of Computer Science, University of Geneva, Geneva, Switzerland

Prof. Elisa Cuadrado-Godia, Department of Science, Universitat Pompeu Fabra, Barcelona, Spain

Prof. Marek Czosnyka, Department of Neuroscience, University of Cambridge, Cambridge, UK

Prof. Philipp Dammann, Clinic for Neurosurgery, University Hospital Essen, Essen, Germany

Prof. Stephanie Debette, Centre de la Mémoire, Centre Hospitalier Universitaire de Bordeaux, Bordeaux, France

Prof. Amir Dehdashti, Neurosurgery, North Shore University Hospital, New York, USA

Dr. Stacie Demel, Clinical Neurology & Rehabilitation Medicine, College of Medicine, University of Cincinnati, Ohio, USA

Dr. Mannekomba Diabougba, Department of Infection, Immunity and Cardiovascular Disease, University of Sheffield, Sheffield, UK

Dr. Joel Fluss, Neuropediatrics, Geneva University Hospitals, Geneva, Switzerland

Prof. Juhana Frösen, Department of Neurosurgery, Kuopio University Hospital, Kuopio, Finland

Prof. Soichiro Fujimura, Faculty of Engineering, Department of Mechanical Engineering, Tokyo University of Science, Tokyo, Japan

MA, MB, Bchir, MRCS Ben Gaastra, Department of Neurosurgery, University of Southampton, Southampton, UK

M.Sc. Franziska Gaidzik, Institut für Strömungstechnik and Thermodynamik, University of Magdeburg, Magdeburg, Germany

M.Sc. Alban Gaignard, UMR\_S 1087, UMR\_C 6291 l'Unité de recherche de l'institut du thorax, INSERM, Centre hospitalier universitaire de Nantes, Nantes, France

PhD Johannes Goldberg, Universitätsklinik für Neurochirurgie, Universitätsspital Bern, Bern, Switzerland

Dr. Martina Göldlin, Department of Neurology, University Hospital of Bern, Bern, Switzerland

Prof. Matt Gounis, Radiology Department, Chan Medical School, University of Massachusetts, Boston, Massachusetts, USA

Prof. Yves Gouriou, University Claude Bernard, Lyon, France

Prof. Raphael Guzman, Neurosurgery, University of Basel, Basel, Switzerland

Dr. Julien Haemmerli, Neurosurgery, Department of clinical neurosciences, Geneva University Hospitals, Faculty of medicine, University of Geneva, Geneva, Switzerland

Prof. David Hasan, Department of Neurosurgery, Duke University School of Medicine, Durham, North Carolina, USA

Prof. Stephen J Payne, Institute of Applied Mechanics, National Taiwan University, Taipei, Taiwan

Dr. Norman Juchler, ZHAW Life science and Facility Management, FG Medical Image Analysis and Data Modeling, Züriche Hochschule für Angewandte Wissenschaften, Zurich, Switzerland

Dr. Naoki Kaneko, Department of Interventional Neuroradiology, UCLA, Los Angeles, California, USA

Prof. Mira Katan, Department of Neurology, University Hospital Basel, Basel, Switzerland

Dr. Oleg M. Andrushkevich, The Federal Center of Neurosurgery of the Ministry of health of the Russian Federation, Novosibirsk, Russia

Prof. Charles Matouk, Department of Neurosurgery, Yale University School of Medicine, Yale, New Haven, Connecticut, USA

Prof. Vitor Mendes Pereira, Department of Neurosurgery, University of Toronto, Toronto, Canada

Prof. Patrik Michel, Head of the Laboratory of Clinical Stroke Research Unit, University of Lausanne, Lausanne, Switzerland

Dr. Aniket Mishra, Researcher, University of Bordeaux, Bordeaux, France

Dr. Sandrine Morel, Department of clinical neurosciences, Geneva University Hospitals, Department of pathology and immunology, Faculty of medicine, University of Geneva, Geneva, Switzerland

Prof. Akio Morita, Department of Neurosurgery, University of Tokyo, Tokyo, Japan

Dr. Fabio Muso, ZHAW Life science and Facility Management, FG Medical Image Analysis and Data Modeling, Züriche Hochschule für Angewandte Wissenschaften, Zurich, Switzerland

Prof. Makoto Ohta, Biomedical Flow Dynamics Laboratory, Tohoku University, Sendai, Miyagi, Japan

Dr. Giulia Pederzani, Faculty of Science, Informatics Institute, University of Amsterdam, Amsterdam, Netherlands

Prof. Ivan Radovanovic, Department of Neurosurgery, University of Toronto, Toronto, Canada

PhD Richard Redon, L'institut du thorax, INSERM, Université de Nantes, Nantes, France

Prof. Luca Regli, Department of Neurosurgery of the University Hospital of Zürich, Zurich, Switzerland

Dr. Philippe Reymond, Unit of cardiovascular surgery, Department of surgery, Geneva University Hospitals, Switzerland

Prof. Anne Robertson, Department of Mechanical and Materials science, Swanson School of Engineering, University of Pittsburgh, Pennsylvania, USA

Prof. Philippe Ryvlin, Department of Neurosciences, Neurology, CHUV, Lausanne, Switzerland

Prof. Nobuyuki Sakai, Department of Psychology, Graduate School Faculty of Arts and Letters, Tohoku University, Sendai, Miyagi, Japan

Dr. Andreas Spiegelberg, Institute of Physiology, The Interface Group, University of Zürich, Zurich, Switzerland



Dr. Georg Spinner, ZHAW Life science and Facility Management, FG Medical Image Analysis and Data Modeling, Zürcher Hochschule für Angewandte Wissenschaften, Zurich, Switzerland

M.Sc. Janneck Stahl, Forschungscampus STIMULATE, University of Magdeburg, Magdeburg, Germany

Prof. David Steinman, Mechanical and Industrial Engineering, University of Toronto, Toronto, Canada

Dr. Rikka Tulamo, Department of Surgery, HUS Neurocenter, University of Helsinki, Helsinki, Finland

Dr. Vincent Tutino, Department of Pathology and Anatomical Sciences, Jacob School of Medicine and Biomedical Sciences, Buffalo, New York, USA

Dr. Anatoly V. Bervitskiy, The Federal Center of Neurosurgery of the Ministry of health of the Russian Federation, Novosibirsk, Russia

Dr. Prasanth Velvaluri, Institute of Materials Science, Faculty of Engineering, Christian-Albrechts-Universität zu Kiel, Kiel, Germany

Dr. Thomas Wälchli, Neurosurgeon-Neuroscientist, Zurich University Hospital, Zurich, Switzerland

Prof. Paul Watton, Department of Computer Science, University of Sheffield, Sheffield, UK

Prof. Susanne Wegener, Department of Neurology, University of Zurich, Zurich, Switzerland

Dr. Takanobu Yagi, Waseda University, Tokyo, Japan

Dr. Paul Zikas, ORamaVR, Geneva, Switzerland

## Posters

M. Daisuke Goanno, Tohoku University, Sendai, Miyagi, Japan

M. Riko Hasegawa, Tohoku University, Sendai, Miyagi, Japan

M. Joan Jiménez-Balado, Neurovascular Research Group, Hospital del Mar Research Institute (IMIM), Barcelona, Spain

M. Kazuyoshi Jin, Tohoku University, Sendai, Miyagi, Japan

M. Abiram Sandralegar, Faculty of Medicine, University of Geneva, Geneva, Switzerland

M. Luo Yiming, Institute of Applied Merchanics, National Taiwan University, Taipei, Taiwan

# Practical information

---

## Organisation

Prof. Philippe Bijlenga, associate professor in neurosurgery at University of Geneva and Geneva University Hospitals

Dr. Julien Haemmerli, neurosurgeon, Chief resident, University of Geneva and Geneva University Hospitals

Prof. Karl Schaller, professor and chair of neurosurgery, Department of clinical neurosciences, Geneva University Hospitals

Prof. Sven Hirsch, professor for computational health, Head of Center for computational health, Institute of Computational Life Sciences, ZHAW

Dr. Sandrine Morel, senior researcher in clinical sciences and biology, ADB management AneuX Biobank management

Prof. Paolo Machi, associate professor, Head of the Unit of interventional neuroradiology at Geneva University Hospitals, head of Brain endovascular therapeutics R&D Lab

Dr. Emmanuel Carrera, associate doctor, Unit of neurology, Department of clinical neurosciences, Geneva University Hospitals

## Accreditation

24 credits CME

## Registration Fees

Presential, the meeting will not be streamed.

- ▶ Congress registration: CHF 800.-
- ▶ Friday night dinner: CHF 100.-
- ▶ Saturday night dinner: CHF 100.-

Registration:

➤ [www.hug.ch/event/19th-interdisciplinary-cerebrovascular-symposium](http://www.hug.ch/event/19th-interdisciplinary-cerebrovascular-symposium)

## Restaurants

Le Lyrique, Boulevard du Théâtre 12, 1204 Genève

Restaurant de la Plage, Quai Gustave-Ador 75, 1207 Genève

## Contact and information

✉ [ics2023geneva@gmail.com](mailto:ics2023geneva@gmail.com)

➤ <https://services.hug.ch/fr/evenement/19th-interdisciplinary-cerebrovascular-symposium>

Logistic urgent issues call: ☎ +41 (0)79 204 40 43

## Sponsors

Gold:



Silver:



Bronze:

