***Nov. 14, 2022 (Mon)***

***Opening remarks*** (8:50 – 9:00) ***Tetsuya Tsukahara***
***Luca Regli***

***11/14 morning 1*** (9:00 – 9:50)

Aneurysm 1 Modulator: Miikka Korja, Tosinori Matsushige

9:00 - 9:12 Miikka Korja, Helsinki, Finland
Screeing of UIAs in smoking postmenopausal women - a new effective way to decrease SAH incidence

9:12 - 9:24 Victor Staartjes, Zürich, Switzerland
The Prediction of Adverse Events in MIcrosurgery for Unruptured AneurysMs (PRAEMIUM) Study: protocol and first results of a global cohort study

9:24 - 9:36 Toshinori Matsushige, Hiroshima, Japan
The vessel wall imaging of cerebral aneurysm

9:36 - 9:48 Tomomichi Kayahara, Suita, Japan
The crucial contribution of neutrophils infiltrating through vasa vasorum induced in the adventitia to the rupture of intracranial aneurysm

***11/14 morning 2*** (9:50 – 10:40)

Aneurysm 2 Modulator: Philippe Bijlenga, Taku Satou

9:50 - 10:02 Philippe Bijlenga, Geneve, Switzerland
Bayesian modelling of IA rupture risk assessment

10:02 - 10:14 Taku Satou, Fukishima, Japan
Novel imaging of cerebral aneurysms using 7T MRI

10:14 - 10:26 Shouta Tsutsui, Morioka, Japan
Assessment of shape-dependent susceptibility artifacts by titanium alloy clips for aneurysms in a 7 Tesla ultra-high-field magnetic resonance scanner

10:26 - 10:38 Tatsuya Sasaki, Sendai, Japan
Usefulness of transcranial motor evoked potential in clipping surgery for cerebral aneurysms-Introduction of a new protocol for stable monitoring-

10:38 - 10:50 Fredrick Johnson Joseph, Bern, Switzerland
Post-operative microsurgery case review using dynamic mixed-reality patient-specific neurosurgical clipping simulator

**Coffee break (10:50 – 11:10)**

***11/14 morning 3*** (11:10 – 12:00)

Subarachnoid hemorrhage Modulator: Hans Jakob Steiger, Hidenori Suzuki

11:10 - 11:22 Menno Germans, Zurich, Switzerland
Ultra-early tranexamic acid after subarachnoid hemorrhage: the ULTRA Study analysis

11:22 - 11:34 Hans Jakob Steiger, Düsseldorf, Germany
The value of milrinone for secondary cerebral ischemia after aneurysmal subarachnoid hemorrhage

11:34 - 11:46 Hidenori Suzuki, Mie, Japan
Tenascin-C as a target for intervention in delayed cerebral ischemia after subarachnoid hemorrhage

11:46 - 11:58 Atsushi Kanoke, Sendai, Japan
Ischemic complication of extracranial-intracranial bypass followed by trapping for ruptured blood blister-like aneurysms

**Lunch** (11:50 – 13:00)

***11/14 afternoon 1*** (13:00 – 13:50)

Moyamoya disease 1 Modulator: Pieter Deckers, Satoshi Kuroda

13:00 – 13:12 Satoshi Kuroda, Toyama, Japan

5-Year Stroke Risk and Its Predictors in Asymptomatic Moyamoya Disease – The Results of Multi-Center, Prospective Cohort Study, Asymptomatic Moyamoya Registry (AMORE)

13:12 – 13:24 Kengo Setta, Morioka, Japan

Feasibility of a Hadamard encoding-based arterial spin-labeling MRI for detecting CBF reduction in adult patients with ischemic moyamoya disease

13:24 – 13:36 Peter Birkeland, Copenhagen, Denmark

Course and outcome of Moyamoya disease in Denmark

13:36 – 13:48 Pieter Deckers, Utrecht, Netherlands

The clinical and radiological outcome after surgical treatment for moyamoya vasculopathy: a Dutch prospective single-center cohort study

***11/14 afternoon 2*** (13:50 – 14:40)

Moyamoya disease 2 Modulator: Jürgen Beck, Miki Fujimura

13:50 – 14:02 Miki Fujimura, Sapporo, Japan

Surgical approaches to Moyamoya disease: Standard procedure and recent guideline recommendations

14:02 – 14:14 Anna Shulgina, Moscow, Russia

Cerebral ischemic complications of surgical treatment in patients with Moyamoya disease

14:14 – 14:26 Akinori Miyakoshi, Shizuoka, Japan

Identification of the bleeding point in hemorrhagic Moyamoya Disease using fusion Images of susceptibility-weighted imaging and

time-of-flight MRA

14:26 – 14:38 Yusuke Egashira, Gifu, Japan
How I do it: Combined bypass procedure for adult moyamoya disease with maximal consideration of cosmetic aspects

**Coffee break (14:40 – 15:00)**

***11/14 afternoon 3*** (15:00 – 15:40)

AVM 1 Modulator: Ivan Radovanovic, Hiroki Kurita

15:00 - 15:12 Martina Sebök, Zürich, Switzerland
Patients with brain arteriovenous malformation-associated epilepsy exhibit more pronounced hemodynamic alterations

15:12 - 15:24 Kennichirou Kikuta, Fukui, Japan
Outcome of direct surgery to ARUBA-eligible patients with unruptured brain AVM

15:24 - 15:36 Hiroki Kurita, Saitama, Japan (14, 15)
Lessons learned from 265 AVM surgery: battle plans and clinical results

***11/14 afternoon 4*** (15:40 – 16:40)

Dural AVF Modulator: Marco Cenzato, Michihiro Tanaka

15:40 - 15:52 Michihiro Tanaka, Chiba, Japan
Efficacy of high-resolution cone beam CT for the endovascular treatment of dural AVFs

15:52 - 16:04 Naoya Kuwayama, Toyama, Japan
Onyx treatment of dural AV fistulas

16:04 - 16:16 Taku Sugiyama, Sapporo, Japan
The role of direct surgery for intracranial dural arteriovenous fistula

16:16 - 16:28 Naoki Akioka, Toyama, Japan
Multidisciplinary treatment of dural arteriovenous fistula

16:28 - 16:40 Marco Cenzato, Milano, Italy
Surgical treatment of spinal AVMs

***Nov. 15, 2022 (Tue)***

***11/15 morning 1*** (9:00 – 9:50)

Cerebral ischemia 1 Modulator: Giuseppe Esposito, Jouji Nakagawara

9:00 - 9:12 Elisa Colombo, Zürich, Switzerland

Cerebrovascular surgery: preoperative planning and training with a novel mixed reality system

9:12 - 9:24 Jouji Nakagawara, Osaka, Japan
Novel hemodynamic parameters for cerebral ischemia in patients with occlusive cerebrovascular disease using dual ASL perfusion imaging

9:24 - 9:36 Alex Bhogal, Utrecht, Netherlands
Quantifying cerebral blood arrival times using hypoxia-mediated arterial Blood Oxygen Level Dependent (BOLD) MRI contrast

9:36 - 9:48 Martina Sebök , Zürich, Switzerland
Recurrent stroke in symptomatic steno-occlusive disease: identifying patients at high-risk using impaired BOLD cerebrovascular reactivity

***11/15 morning 2*** (9:50 – 10:40)

Cerebral ischemia 2 Modulator: Luca Regli, Hideyuki Ishihara

9:50 - 10:02 Giuseppe Esposito, Zürich, Switzerland

Zurich bypass flow chart

10:02 - 10:14 Andreas Gruber, Linz, Austria
The occipital artery as donor graft for posterior circulation revascularisation

10:14 - 10:26 Tsuyoshi Ohta, Kobe, Japan
New device/technique of endovascular thrombectomy

10:26 - 10:38 Hideyuki Ishihara, Yamaguchi, Japan
ADC Value as an Indicator of Effectiveness of thrombectomy

**Coffee break (10:40 – 11:00)**

***11/15 morning 2*** (11:00 – 12:00)

Cerebral ischemia 3 Modulator: Philippe Schucht, Masashi Morimoto

11:00 - 11:12 Philippe Schucht, Bern, Switzerland
Carotid endarterectomy and floating thrombus: a cohort study

11:12 - 11:24 Jun Yoshida, Morioka, Japan
Cerebral white matter abnormalities can affect cognitive improvement after carotid endarterectomy in patients with carotid artery steno-occlusive disease

11:24 - 11:36 Masashi Morimoto, Yokohama, Japan
Vascular reconstruction of carotid artery stenosis

11:36 - 11:48 Kiyohumi Yamada, Suita, Japan
Impact of magnetic resonance plaque imaging before carotid artery stenting

11:48 - 12:00 Federico Nicolosi, Milano, Italy
Psychomotor Skill Training and Hybrid Reality in Vascular Neurosurgery

**Lunch** (12:00 – 13:00)

***Poster viewing*** (12:30 – 13:00)

***11/15 afternoon 1*** (13:00 – 13:50)

AVM 2 Modulator: Carlo Bortolotti, Yasushi Takagi

13:00 - 13:12 Ivan Radovanovic, Toronto, Canada

Surgery of cerebral AVM

13:12 - 13:24 Yasushi Takagi, Tokushima, Japan
AVM surgery using intra-arterial ICG videoangiography in hybrid operating room

13:24 - 13:36 Yuki Shinya, Tokyo, Japan
γ-knife treatment of cerebral AVM

13:36 - 13:48 Carlo Bortolotti, Bologna, Italy
Multidisciplinary treatment of grade 4&5 brain AVMs

***11/15 afternoon 2*** (13:50 – 14:30)

Aneurysm 3 Modulator: Tristan van Doormaal, Akira Satou

13:50 - 14:02 Tristan van Doormaal, Zurich, Switzerland
Artificial intelligence and augmented reality in aneurysm surgery

14:02 - 14:14 Hiroshi Abe, Fukuoka, Japan
Direct surgery of complex cerebral aneurysms

14:14 - 14:26 Akira Satou, Tokyo, Japan
Study on the effect of intraventricular and/or intracerebral hematoma on the development of symptomatic vasospasm : post-hoc analysis of the reassessment study of the WFNS grading scale

**Coffee break (14:30 – 14:50)**

***11/15 afternoon 3*** (14:50 – 15:40)

Aneurysm 4 Modulator: Paolo Ferroli, Shigeru Miyachi

14:50 - 15:02 Tomohiro Inoue, Tokyo, Japan
Direct surgery of complex cerebral aneurysms using EC-IC bypass

15:02 - 15:14 Paolo Ferroli, Milano, Italy

The role of bypass surgery for the management of complex intracranial aneurysms in the anterior circulation in the flow-diverter era: a single-center series

15:14 - 15:26 Takayuki Hara, Tokyo, Japan
Hybrid surgeries for the treatment of complex cerebral aneurysms

15:26 - 15:38 Matthias Gmeiner, Linz, Austria
Neurosurgical hybrid operating room: first experiences at Kepler University Hospital Linz

15:38 – 15:50 Shigeru Miyachi, Nagoya, Japan
Challenge with endovascular approach for difficult cerebral aneurysms

***11/15 afternoon 4*** (15:50 – 16:40)
Cavernous angioma/intracerebral hemorrhage

Modulator: Giampietro Pinna, Hiroki Hongou

15:50 - 16:02 Hiroki Hongo, Tokyo, Japan
Epidemiology/etiology of cerebral cavernous malformations

16:02 - 16:14 Giampietro Pinna, Verona, Italy
Brainstem Cavernomas: the Verona experience and current philosophy

16:14 - 16:26 Domenico D'Avella, Padova, Italy
Our experience on surgery for large intradural cerebellopontine angle paragangliomas

16:26 - 16:38 Jürgen Beck, Freiburg, Germany
What is a minimal invasive approach in ICH today?

***Nov. 16, 2022 (Wed)***

***11/16 morning 1*** (9:00 – 9:40)

Exoscope — Modulator: Marco Cenzato, Kenichirou Kikuta

9:00 - 9:12 — Marco Cenzato, Milano, Italy
Exoscope in vascular neurosurgery

9:12 - 9:24 — Youji Tanaka, Tokyo, Japan
Direct surgery of cerebral aneurysms using exoscope

9:24 - 9:36 — Takuma Maeda, Saitama, Japan
Exoscopic Cerebrovascular Surgery: Current Status & Future Perspective

***11/16 morning 2*** (9:40 – 10:30)

Aneurysm 5 — Modulator: Andreas Gruber, Ichirou Nakahara

9:40 - 9:52 — Luca Regli, Zürich, Switzerland
Aneurysm surgery: strategies to reduce the microsurgical trauma

9:52 - 10:04 — Ichirou Nakahara, Toyoake, Japan
Endovascular treatment of wide-neck bifurcation aneurysm: a Japanese single center experience and current status in our country

10:04 - 10:16 — Hidetoshi Matsukawa, Takarazuka, Japan
Prognostic factors in patients with unruptured vertebrobasilar fusiform aneurysms treated with endovascular procedures: a single-center, retrospective analysis

10:16 - 10:28 — Takeshi Miyata, Kokura, Japan
Non-contrast improved motion-sensitized driven-equilibrium black blood magnetic resonance imaging predicts the occlusion status of intracranial aneurysms after the flow-diverter deployment

**Coffee break (10:30 – 10:50)**

***11/16 morning 3*** (10:50 – 11:40)

Aneurysm 6 Modulator: Philippe Bijlenga, Yasuhiko Kaku

10:50 - 11:02 Miikka Korja, Helsinki, Finland

Can aneurysm surgery be learned without increased additional morbidity and mortality?

11:02 - 11:14 Yosuke Akamatsu, Morioka, Japan

Partial removal of the anterior insular cortex for clipping of middle cerebral artery aneurysms located in the limen recess

11:14 - 11:26 Yoshimasa Niiya, Otaru, Japan

Surgical treatment of cerebral aneurysms with temporary cardiac arrest using Adenosine

11:26 – 11:38 Yasuhiko Kaku, Gifu, Japan

The hybrid neurosurgeon -Treatment results of A-com aneurysms using both treatment modalities-

***Closing remarks*** ***Giuseppe Esposito***
***Yasuhiko Kaku***

***Poster*** Poster display (14 Nov. 9:00 – 15 Nov. 17:00)
Poster viewing in the presence of the authors (15 Nov. 12:30 – 13:00)

1. Kohei Chida, Morioka, Japan
Identification of the distal end of carotid plaque using 3-dimensional Fast Spin Echo T1-weighted magnetic resonance plaque imaging

2. Haruto Uchino, Sapporo, Japan
Association of RNF213 and cortical hyperintensity sign on fluid-attenuated inversion recovery images after direct revascularization surgery for Moyamoya disease

3. Rikiyoshi Yamamoto, Gifu, Japan
A case of symptomatic common carotid artery occlusion treated by a bridging bypass using saphenous vein graft

4. Nozomi Sasaki, Gifu, Japan
Intracranial Carotid Artery Calcification predicts TypeⅢ Aortic Arch

5. Koki Onodera, Saitama, Japan
Hemodynamic study prior to and after combined revascularization surgery in adult Moyamoya disease

6. Yasuhiro Yamada, Nagoya, Japan
Treatment of paraclinoid aneurysms

7. Sayaka Itou, Siga, Japan
PTEN hamartoma tumor syndrome and spinal vascular malformations: A case report and literature review

8. Anna Shulgina, Moscow, Russia
Local hemodynamic parameters after bypass surgery in patients with steno-occlusive disease of the internal carotid artery

9. Anna Shulgina, Moscow, Russia
New classification of the degree of cerebrovascular insufficiency in patients with Moyamoya disease measured by ASL MRI perfusion

10. Giorgio Selmin, Zürich, Switzerland
High stimulation rate improves somatosensory evoked potentials for short recording duration

11. Nico Henrique Stroh, Linz, Austria
Microsurgical treatment of unruptured anterior communicating artery aneurysms:
A long-term retrospective single center study

12. Gmeiner Matthias, Linz, Austria
Medical education in surgicall aneurysm clipping (MEDUSA) –a mixed reality solution

13. Giorgio Selmin, Zürich, Switzerland

Transcranial electrical stimulation and trigeminal-hypoglossal reflex response during CEA: a novel method to monitor the function of the hypoglossal nerve

14. Elisa Colombo, Zurich, Switzerland
Zurich Microsurgical Lab: training models and future perspectives

15. Fabian Wolf, Zurich, Switzerland

Correlation between NOVA volume flow rate and TOF signal intensity ratio in patients with unilateral ICA occlusion

16. Victor Staartjes, Zurich, Switzerland
How we do it: the Zurich Microsurgical Lab technique for placenta preparation

17. Martina Sebök, Zurich, Switzerland
Do hemodynamics and flow correlate in patients with symptomatic ICA occlusion?

18. Fabian Wolf, Zurich, Switzerland
A new classification system of training models for cerebral microvascular anastomosis