24th ZURICH COURSE ON DIAGNOSTIC AND INTERVENTIONAL NEURORADIOLOGY

August 22 – 27, 2016
University Hospital of Zurich
Switzerland

Course Directors:
Anton Valavanis, MD  Scott W. Atlas, MD

www.cinr-zurich.ch
Course Description

Dear colleagues and friends,

Based on the success of combining diagnostic and interventional neuroradiology in the past courses, we are pleased to announce the 24th Zurich Course to be held August 22 – 27, 2016 at the Department of Neuroradiology of the University Hospital of Zurich.

Since its inception 1992, the primary educational goal of the Zurich Course has been to link neuroradiology with the fundamental neuroanatomy, neurobiology and clinical manifestations of neurologic disease. Formal lectures, interactive case discussions, video- and hands-on workshops are the educational format.

This year, the diagnostic part of the course will cover selected topics on fundamental and advanced clinical neuroimaging of the brain, including neuroanatomy, neurooncology, neuroimmunology and neurovascular disease with emphasis on hemorrhagic and ischemic stroke and neuroradiology of the skull base.

The interventional part of the course will cover almost the entire spectrum of endovascular interventional neuroradiology including acute ischemic stroke, intra- and extracranial atherosclerotic disease, vascular lesions of the head and neck, hypervascular skull base and intracranial tumors, dural arteriovenous fistulae, brain AVMs, spinal cord AVMs and intracranial aneurysms.

The teaching activities of the Course are designed in such a way that they cover all relevant aspects of each topic, from basic considerations to advanced applications and address both the beginner as well as the experienced practitioner in the field. Enrollment is possible in the diagnostic part, the interventional part, or the entire course.

We look forward to welcoming you next August in Zurich.

A. Valavanis  
University Hospital of Zurich

S. W. Atlas  
Stanford University

Course Faculty

Anton Valavanis, M.D., Course Director  
Professor and Chairman  
Department of Neuroradiology  
Director of the Clinical Neuroscience Center  
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CH-8091 Zurich, Switzerland

Scott W. Atlas, M.D., Course Director  
David and Joan Traitel Senior Fellow  
Hoover Institution  
Stanford University  
Stanford, CA, USA

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Division of Neuroradiology  
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Karel terBrugge, M.D., FRCPC  
The David Bradley and Nancy Gordon Chair in Interventional Neuroradiology  
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Director Stroke Program
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Spyros S. Kollias, M.D.
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Chief Neuro-MRI
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University Hospital of Zurich
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Technical Assistance: Manuela Keller, M.D.
Ceylan Kurz-Yasargil, chief nurse
Arja Hugentobler, nurse

Audiovisual Assistance: Peter Roth
René Inglin

Course Organisation: Department of Neuroradiology
University Hospital of Zurich
Frauenklinikstrasse 10
CH – 8091 Zurich
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E-mail: neuroradiologie@usz.ch
Internet: www.cinr-zurich.ch
Monday, August 22, 2016

Course on Diagnostic Neuroradiology

08.00  Registration open

09.00  Welcome address, S. W. Atlas and A. Valavanis

Topic: Neuroradiology of the insula and neopallium

09.10  The role of the insula in the evolution of the telencephalon and implications for neuroimaging, A. Valavanis

10.00  Neuroimaging anatomy and topography of the insula, T. P. Naidich

10.50  COFFEE BREAK

11.00  The vascularization of the insula, A. Valavanis

11.30  Diagnostic neuroradiology of insular pathology, A. Valavanis

12.00  Neuroimaging analysis of the neopallium, T. P. Naidich

12.45  Discussion

13.00  LUNCH

Topic: Neuroradiology of brain tumors

14.00  Classification of brain tumors: pathology or genetics? P. Kleihues

14.45  Neuroimaging of brain tumors: fundamentals, S. W. Atlas

15.30  COFFEE BREAK

16.00  On the behaviour of gliomas as assessed by neuroimaging, A. Valavanis

16.45  Neuroimaging of pediatric brain tumors, T. P. Naidich

17.30  Brain tumors: cases discussion, S. W. Atlas

18.15  Discussion

18.45  WELCOME RECEPTION at the Foyer of the Lecture Hall

Tuesday, August 23, 2016

08.00  Registration open

Topic: Neuroradiology of the cerebral white matter and its diseases

09.00  The architectonics of the cerebral white matter: an introduction, A. Valavanis

09.45  Application of tractography in clinical neuroimaging, S. Kollias

10.30  COFFEE BREAK

11.00  MRI of multiple sclerosis and white matter diseases, S. W. Atlas

11.40  White Matter diseases: case discussion, S. W. Atlas

12.30  Discussion

13.00  LUNCH
Zurich Course on Diagnostic and Interventional Neuroradiology

**Topic:** Neuroradiology of cerebrovascular disease

14.00 Stroke imaging: current status, S. W. Atlas

14.45 Neuroimaging of the vessel wall: technique and clinical applications, T. Krings

15.30 **COFFEE BREAK**

15.50 Intracranial haemorrhage: principles of imaging, S. W. Atlas

16.30 Diagnostic neuroradiology of cavernomas and of developmental venous anomalies, A. Valavanis

17.15 Brain AVMs: what the neuroradiologist needs to report, A. Valavanis

17.45 Intracranial aneurysms: what the neuroradiologist needs to report, T. Krings

18.30 Discussion

**Wednesday, August 24, 2016**

08.00 Registration open

**Topic:** Diagnostic Neuroradiology of the skull base

09.00 Neuroradiology of the temporal bone, S. Kollias

09.45 Neuroradiology of the orbit, sella turcica and cavernous sinus, S. W. Atlas

10.30 **COFFEE BREAK**

11.00 Neuroradiology of the nasopharynx and paranasal sinuses, S. Kollias

11.45 Neuroradiology of pulsatile tinnitus, A. Valavanis

12.30 Discussion

13.00 **LUNCH**

Course on Interventional Neuroradiology

14.00 Welcome and introduction, A. Valavanis

**Topic:** Interventional neuroradiology of the skull base

14.05 Functional vascular anatomy of the skull base, G. Rodesch

14.45 Interventional neuroradiology of paragangliomas of the head and neck, A. Valavanis

15.30 **COFFEE BREAK**

16.00 Interventional neuroradiology in intractable epistaxis and in nasopharyngeal angiofibromas, A. Valavanis

16.45 Interventional neuroradiology of vascular and neoplastic lesions of the cavernous sinus, A. Valavanis

17.30 Interventional neuroradiology of meningiomas and neurinomas of the skull base, A. Valavanis

18.00 Discussion

18.30 **WELCOME RECEPTION**

at the Foyer of the Lecture Hall
**Thursday, August 25, 2016**

**08.00** Registration open

**08.00** Hands-on Workshop (provided by Stryker)

**Topic:** Intracranial dural AVF’s and tumors

**09.00** Intracranial dural AVF’s: natural history, classification and the role of interventional neuroradiology, **K. terBrugge**

**09.45** Venous analysis of intracranial dural AVF’s and its impact on treatment, **G. Baltsavias**

**10.00** The venous architecture of intracranial DAVFs, **G. Baltsavias**

**10.30** **COFFEE BREAK**

**11.00** Video workshop: Embolization of intracranial dural AVF’s, **A. Valavanis**

**12.00** Embolization of hypervascular intracranial tumors, **A. Valavanis**

**12.45** Discussion

**13.00** **LUNCH**

**Topic:** Interventional neuroradiology of ischemic stroke

**14.00** Cardiocentrism versus encephalocentrism in clinical neuroscience with special reference to acute stroke, **A. Valavanis**

**15.00** Endovascular treatment of anterior circulation stroke, **G. Baltsavias**

**15.15** Classification of spinal vascular malformations, **T. Krings**

**15.40** **COFFEE BREAK**

**16.00** Endovascular treatment of posterior circulation stroke, **K. terBrugge**

**16.40** Carotid artery stenting: update, **M. Tanaka**

**17.00** Carotid stenting without filter devices, **S. Husain**

**17.20** Intracranial atherosclerotic disease: current status of interventional neuroradiology, **T. Krings**

**18.00** Discussion

**Friday, August 26, 2016**

**08.00** Registration open

**Topic:** Interventional neuroradiology of brain AVM’s

**09.00** Brain AVM’s: a still enigmatic disease, **A. Valavanis**

**09.30** The angioarchitectonics of brain AVMs, **G. Rodesch**

**10.15** A critical analysis of the ARUBA study, **T. Krings**

**10.40** **COFFEE BREAK**

**11.00** Cerebral proliferative angiopathy, **A. Valavanis**

**11.45** Partial targeted embolization of brain AVMs: concept, indications, techniques and results, **T. Krings**

**12.2** Brain AVMs/AVFs in the pediatric population, **K. terBrugge**

**13.00** **LUNCH**
Saturday, August 27, 2016

08.00 Registration open

**Topic:** Interventional neuroradiology of intracranial aneurysms

09.00 Aneurysmal vasculopathy and implications for endovascular treatment, **T. Krings**

09.30 Cisternal architectonics and its interaction with the aneurysm wall, **A. Valavanis**

10.15 **COFFEE BREAK**

10.30 Natural history of unruptured aneurysms: update, **K. terBrugge**

11.00 Endovascular conception of subarachnoid haemorrhage and the endovascular treatment of acutely ruptured intracranial aneurysms (with video demonstration), **A. Valavanis**

12.00 Endovascular considerations in dissecting intracranial aneurysms, **G. Rodesch**

12.45 Discussion

13.00 **LUNCH**

14.00 Dissecting aneurysms of the cerebellar arteries: endovascular treatment, **S. Husain**

14.30 Endovascular treatment of complex and giant intracranial aneurysms, **T. Krings** and **G. Baltsavias**

15.30 Discussion and concluding remarks

16.00 **END OF THE COURSE**

European CME credits (ECMEC) have been applied at the European Accreditation Council for Continuing Medical Education (EACCME).

US physicians may have the EACCME European Credits converted to AMA Category 1 Credit.
General Information

Course Directors
Anton Valavanis, M.D., Professor and Chairman, Department of Neuroradiology and Director, Clinical Neuroscience Center, University Hospital of Zurich, Switzerland
Scott W. Atlas, M.D., David and Joan Traitel Senior Fellow, Hoover Institution, Stanford University, CA, USA

Course organization and information
Irene De Bastiani and Lisa Olia
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Internet: www.cinr-zurich.ch

Venue
University Hospital of Zurich, Frauenklinikstrasse 10, CH – 8091 Zurich, Switzerland, Lecture Hall "Grosser Hörsaal" located in the building NORD1, floors C/D.

Language
The official language is English.

Technical exhibition
A technical exhibition will be held in the foyer of the lecture hall on floors C/D. At the exhibition area several vascular models will be available to the participants and exhibitors for demonstration and testing of neuroendovascular devices and materials.

Travel information
By train: From the main railway station take tram N° 10 (Bahnhofplatz) or tram N° 6 (Bahnhofstrasse) to “ETH–UniversitätsSpital”.

By plane: From Zurich Airport by train to Zurich main station in about 10 minutes or by taxi (taxi fare around CHF 60.–).

By car: It is not recommended to arrive by private car since parking facilities are hardly available.

Registration

Registration fee for

A) Both courses
   for physicians: CHF 1'150.--
   for radiology technicians & nurses: CHF 600.--

B) Diagnostic course
   for physicians: CHF 750.--
   for radiology technicians & nurses: CHF 350.--

C) Interventional course
   for physicians: CHF 900.--
   for radiology technicians & nurses: CHF 420.--

Fee includes
All coffee breaks, all lunches, the Welcome Reception on August 22 and/or August 24, 2016 as well as the Course Dinner on August 26, 2016, course materials and the hands-on workshops.

Deadline
Deadline for registration is July 25, 2016.

How to register
1) Fill out the attached registration form;
2) add a copy of your bank transfer order;
3) forward both documents
   • either by E-mail to neuroradiologie@usz.ch;
   • or by fax by dialling ++41 (0) 44 255 45 04;
   • or by surface mail to following address: Department of Neuroradiology, University Hospital of Zurich, Frauenklinikstrasse 10, CH – 8091 Zurich, Switzerland.
   Shortly after your registration you will receive either an E-mail or a fax confirming your participation in the Course.

On-site registration
On-site registration will start on Monday, August 22, 2016, 08.00 a.m., at the registration desk located in the foyer of the lecture hall on floor C. Only cash payment of the fee is accepted.

Payment of the registration fee: Checks and Credit Cards are not accepted.

Only bank transfer orders in Swiss Francs addressed as follows:

Bank: Lienhart & Partner Privatbank Zurich
Bank address: Postfach, Raemistr. 23, CH – 8024 Zurich, Switzerland
Bank account number: 16 0.981.400.00
Bank account entitled: Forschung Neuroradiologie
SWIFT address: RBABCH 22830
IBAN address: CH64 0683 0016 0981 4000 0
Registration (continued)

Cancellation
Cancellation must be made by writing before the deadline of July 25, 2016. The amount will be refunded, less CHF 50.00 for administrative expenses, later refund at 50%. Refunds will be made after the Course.

Hotel Reservation
For hotel reservation please contact:
Zurich Tourism, Hotelreservation, Postfach, CH – 8021 Zurich, Switzerland, E-mail: hotel@zuerich.com, Internet: www.zuerich.com
Fax: ++41(0)44 215 40 44, Tel.: ++41 (0)44 215 40 40

Course Dinner
The Course Dinner will be held on Friday, August 26, 2016 at the “Zunfthaus zur Meisen”. Please make a reservation by filling out the attached registration form.

CME Accreditation
European CME credits (ECMEC) have been applied at the European Accreditation Council for Continuing Medical Education (EACCME).

US physicians may have the EACCME European Credits converted to AMA Category 1 Credit.

REGISTRATION FORM
Deadline: July 25, 2016

Family Name……………………………………………………………………………………………
First Name……………………………………………………………………………………………..Title……………………………………………………………………………………………
Institute/Department……………………………………………………………………………………………………
Address…………………………………………………………………………………………………………………..
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City………………………………………………………………………………………………………………………Postal Code …..………………………………
Country…………………………………………………………………………………………………………………..
Fax…………………………………………………………………………………………………………………………Tel.…………………………………………………….
E-mail…………………………………………………………………………………………………………………………..

FEE:

Physician Radiology Technician & Nurses
Physicians Radiol.Tech & Nurses
A I will attend BOTH Courses CHF 1150.-- CHF 600.--
B I will attend only the Diagnostic Course CHF 750.-- CHF 350.--
C I will attend only the Interventional Course CHF 900.-- CHF 420.--

Payment of the registration fee
Checks and Credit Cards are not accepted.
Only bank transfer orders in Swiss Francs addressed as follows:
Bank: Lienhardt & Partner Privatbank Zurich
Bank address: Postfach, Raemistr. 23, CH–8024 Zurich, Switzerland
Bank account number: 16 0.981.400.00
Bank account entitled: Forschung Neuroradiologie
Swift address: RBABCH 22830
IBAN address: CH64 0683 0016 0981 4000 0
Add a copy of your bank transfer order to this registration form and send it to the Department of Neuroradiology, University Hospital of Zurich, Frauenklinikstrasse 10, CH – 8091 Zurich, Switzerland.
E-mail: neuroradiologie@usz.ch, Fax: ++41 (0)44 255 45 04.
Registration will be considered and confirmed only if received with the copy of the bank transfer order.

Date:…………………………………………Signature:………………………………………………...
REGISTRATION FOR COURSE DINNER

Friday, August 26, 2016 at 19.30 h
at the "Zunfthaus zur Meisen"

Deadline: July 25, 2016

Family Name………………………………………………………………………………
First Name………………………………………………………………………………….Title
Institute/Department……………………………………………………………………
Address………………………………………………………………………………………..
City……………………………………Postal Code……………………………………
Country……………………………………………………………………………………
Fax………………………………………………………………………………………Tel.
E-mail:……………………………………………………………………………………
Accompanying person(s)……………………………………………………………………
Remarks / Comments…………………………………………………………………………

Please send this registration for the dinner to:

Department of Neuroradiology
University Hospital of Zurich
Frauenklinikstrasse 10
CH – 8091 Zurich, Switzerland
E-mail: neuroradiologie@usz.ch
Fax: ++41 (0)44 255 45 04

The following companies generously support this course:

Stryker Neurovascular, Fremont, CA, USA (main sponsor)
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