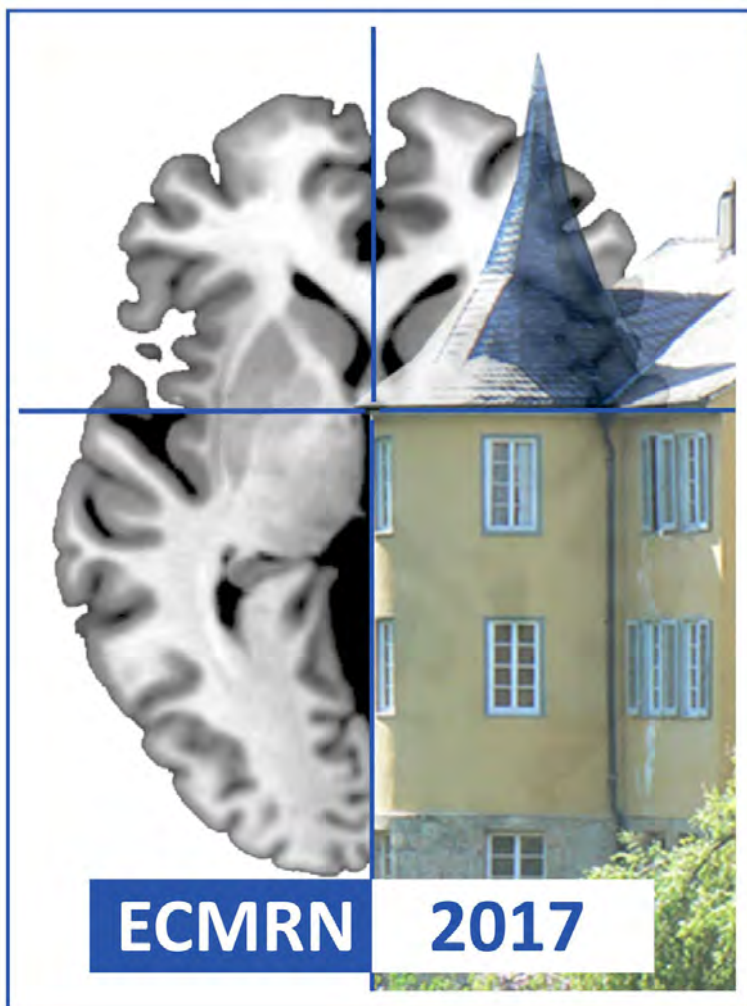


European Congress of Magnetic Resonance in Neuropediatrics

14th Meeting

June 8 - 10th, 2017
Tübingen, Germany

Program





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European Congress of Magnetic Resonance in Neuropediatrics 14th meeting, Tübingen, Germany, June 8-10th, 2017

Scientific Board

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Karen Lidzba

Dear Colleagues,

we would like to cordially welcome you to Tübingen for the 2017 meeting of the European Congress of Magnetic Resonance in Neuropediatrics! The ECMRN is the successor of the European Society (ESMRN), and continues the tradition of bringing together people interested in the application of MR to the developing nervous system.



This conference has always been a stimulating meeting place for a diverse and enthusiastic audience including pediatricians and pediatric neurologists, neonatologists and neuroscientists as well as physicists, radiologists and neuroradiologists. Our common goal is to better diagnose and understand neurological diseases in neonates, infants, and older children, using MRI.

As always, it will be accompanied by educational workshops, addressing basic and advanced topics in this special field. Whether you are a clinician in training wanting to learn the basics, a neonatologist looking for new approaches to outcome prediction, a pediatric neurologist interested in advanced MR methods, or a neuroradiologist who wants to hear the latest advances in developmental anomalies, this is the place to be.

We are looking forward to welcoming you to an exciting meeting!

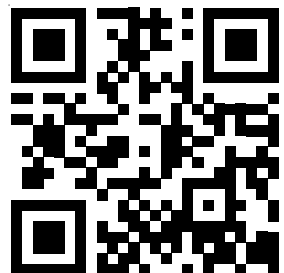
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Congress President

Marko Wilke
Congress Secretary

Congress Organization Office

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<http://www.ecmrn2017.com>



www.ecmrn2017.com

Programme - Thursday, June 8th

Pre-Congress Workshop 1

09:00-12:30	Clinical applications of pattern recognition <ul style="list-style-type: none"> ➢ Malformation of cortical development ➢ Lesional white matter disorders ➢ Genetic white matter disorders ➢ Hypomyelinating disorders 	<i>A.J. Barkovich, San Francisco</i> <i>I. Krägeloh-Mann, Tübingen</i> <i>G. Meijler, Zwolle</i> <i>M. van der Knaap, Amsterdam</i> <i>N. Wolf, Amsterdam</i>
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Pre-Congress Workshop 2

09:00-12:30	Advanced MR methods and multimodal imaging <ul style="list-style-type: none"> ➢ PET-MRI ➢ Improved chemical shift MR imaging by using LASER sequences ➢ Diffusion MRI ➢ Resting state fMRI 	<i>H. Wehrli, Tübingen</i> <i>U. Klöse, Tübingen</i> <i>D. Tournier, London</i> <i>M. Walter, Tübingen</i>
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Pre-Congress Workshop 3

09:00-12:30	MR-aspects of language development under normal and pathological conditions <ul style="list-style-type: none"> ➢ Neural correlates of aphasia in adults ➢ Reorganization following early stroke ➢ MRI correlates of developmental speech and language disorders of unknown origin ➢ MRI correlates of childhood language impairments in genetic vs. acquired conditions ➢ Language development in CP 	<i>F. Liégeois, London</i> <i>K. Lidzba, Tübingen</i> <i>A. Morgan, Melbourne</i> <i>F. Liégeois, London</i> <i>J. Vermeulen, Amsterdam</i>
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12:30 **Lunch**

13:30 **Opening of the congress** *I. Krägeloh-Mann, Tübingen*

Prenatal imaging

Kasprian / Prayer

14:00-16:00	<ul style="list-style-type: none"> ➢ Fetal MRI: structural & functional validity ➢ Brain disruption sequences - vascular and other causes ➢ Prenatal hydrocephalus <p><i>Free oral presentations</i></p> <ul style="list-style-type: none"> ➢ Sagittal axonal strata of the human fetal and neonatal cerebrum ➢ Clinical Applications of Dynamic MRI in Pediatric Neuroradiology ➢ Does prenatal structural brain asymmetry predict later language localization & abilities? 	<i>G. Kasprian, Vienna</i> <i>D. Prayer, Vienna</i> <i>C. Raybaud, Toronto</i> <i>I. Zunic, Zagreb</i> <i>M. Jurkiewicz, Philadelphia</i> <i>L. Bartha-Döring, Vienna</i>
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16:00 **Coffee break**

Neonatal Imaging

Counsell / Girard

16:30-18:30

- Outcome after hypothermia treatment
- The concept of radial vulnerability
- The neonatal connectome

*S. Counsell, London
M. Rados, Zagreb
D. Tournier, London*

Free oral presentations

- Variability of functional connectivity architecture of the neonatal brain
- Neonatal MRI for prediction of neurological and cognitive outcome at age 2 years in neonatal hypoxic ischaemic encephalopathy
- Susceptibility weighted magnetic resonance imaging in newborns with hypoxic ischaemic encephalopathy

*S. Stöcklein, Munich
F. Lennartsson, Lund
B. Vollmer, Southampton*

19:00

Welcome Reception with the mayor in Tübingen's historic City Hall



Programme - Friday, June 9th

Breakfast Session Genotype & MRI phenotype

08:00-09:00	<ul style="list-style-type: none"> > Imaging genomics: Two approaches > Cerebral MR imaging based genetic assessment of brain malformations 	<p><i>Z. Patay, Memphis</i> <i>U. Hehr, Regensburg</i></p>
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Neuroplasticity

Staudt / Lidzba

09:00-11:00	<ul style="list-style-type: none"> > Sensorimotor domain > Memory domain > Reorganization in the visual domain <p><i>Free oral presentations</i></p> <ul style="list-style-type: none"> > Voxel-based lesion symptom mapping of motor outcome after pediatric stroke > The mis-wired language network in rolandic epilepsy: role of the cerebellum > Very premature birth and the visuospatial working memory network in adolescence 	<p><i>M. Staudt, Tübingen</i> <i>T. Baldeweg, London</i> <i>A. Guzzetta, Pisa</i></p> <p><i>M. Steinlin, Bern</i> <i>M. Verly, Leuven</i> <i>S. Kälin, Bern</i></p>
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11:00

Coffee break

Malformations

Barkovich / Raybaud

11:30-13:20	<ul style="list-style-type: none"> > Malformations of the mid- and hindbrain > Cranio-cervical junction malformations > Investigating axonal pathfinding disorders <p><i>Free oral presentations</i></p> <ul style="list-style-type: none"> > SMPD4 mutations link microcephaly with simplified gyration, hypomyelination and congenital arthrogryposis to aberrant cytokinesis and membrane ceramide metabolism > Post-mortem High Resolution Magnetic Resonance Imaging of the fetal brain: characterization of normal and pathological development 	<p><i>A.J. Barkovich, San Francisco</i> <i>C. Raybaud, Toronto</i> <i>M. Severino, Genova</i></p> <p><i>G. Mancini, Rotterdam</i> <i>E. Scola, Milan</i></p>
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13:20

**Lunch break
and poster reception**

White Matter Disorders		van der Knaap / Wolf
14:30-16:30	<ul style="list-style-type: none"> ➢ Update on demyelinating leukodystrophies ➢ Update on hypomyelinating leukodystrophies ➢ MR characterization of MLD <p><i>Free oral presentations</i></p> <ul style="list-style-type: none"> ➢ 4H syndrome: Lessons from 3T MR Imaging ➢ The neuro MRI phenotypic vs mitochondrial genomic of patients diagnosed with mitochondrial disease in Bahrain ➢ How to predict and interpret White Matter hyperintensities on FLAIR MR images in childhood non-CNS tumor patients and survivors? 	<p><i>M. van der Knaap, Amsterdam</i> <i>N. Wolf, Amsterdam</i> <i>S. Gröschel, Tübingen</i></p> <p><i>F. Cayami, Amsterdam</i> <i>H. Al Hashimi, Bahrain</i> <i>C. Sleurs, Leuven</i></p>

16:30 **Coffee break**

Multimodal Imaging & emerging technologies		Scheffler / Pouwels
17:00-18:30	<ul style="list-style-type: none"> ➢ CSF dynamics - new insights from real-time MRI ➢ High-field MRI ➢ Advanced MR technologies to characterize white matter disorders <p><i>Free oral presentations</i></p> <ul style="list-style-type: none"> ➢ FLAIR - a new sequence in the evaluation of normal and pathologic fetal brain ➢ Tissue type segmentation of low contrast MR images using control based atlases ➢ Automatic clustering of white matter to anatomically meaningful fiber bundles 	<p><i>S. Dreha-Kulaczewski, Göttingen</i> <i>K. Scheffler, Tübingen</i> <i>P. Pouwels, Amsterdam</i></p> <p><i>M. Diogo, Lisbon/Vienna</i> <i>M. Al-Saady, Amsterdam</i> <i>C. Anastasopoulos, Freiburg</i></p>

19:30 **Social Dinner at Restaurant Museum**



Programme - Saturday, June 10th

Breakfast Session I MRI in cerebral palsy

- | | | |
|-------------|---|--|
| 08:00-09:00 | <ul style="list-style-type: none"> ➢ The SCPE classification system ➢ Case quiz | <p><i>V. Horber, Tübingen</i>
<i>J. Vermeulen, Amsterdam</i></p> |
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Breakfast Session II Contribution of MRI to neurosurgical decision making

- | | | |
|-------------|--|---|
| 08:00-09:00 | <ul style="list-style-type: none"> ➢ The role of MRI for hydrocephalus surgery ➢ Intra-operative MRI ➢ Pre-interventional fMRI and dMRI | <p><i>M. Schuhmann, Tübingen</i>
<i>B. Bender, Tübingen</i>
<i>M. Wilke, Tübingen</i></p> |
|-------------|--|---|

Inflammatory brain disorders

Gärtner / de Vries

- | | |
|-------------|--|
| 09:00-11:00 | <ul style="list-style-type: none"> ➢ Neuroinflammation: MS and beyond ➢ Infectious CNS disorders in the neonate ➢ Infectious CNS disorders in the older child <p><i>J. Gärtner, Göttingen</i>
<i>L. de Vries, Utrecht</i>
<i>N.C. Moreira, Uppsala</i></p> <p><i>Free oral presentations</i></p> <ul style="list-style-type: none"> ➢ Long-term white matter tract reorganization following prolonged febrile seizures ➢ Structural connectivity by diffusion MRI in childhood apraxia of speech ➢ Comparison of the Detectability of UBOs in Neurofibromatosis Type 1 patients with Proton density-weighted and FLAIR sequences in 3T MRI <p><i>C. Clark, London</i>
<i>S. Fiori, Pisa</i>
<i>L. Porto, Frankfurt</i></p> |
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11:00 Coffee break

Neurovascular disorders

Ernemann / Benseler

- | | |
|-------------|--|
| 11:30-13:00 | <ul style="list-style-type: none"> ➢ Neurovascular disorders – Specific diagnostic approaches ➢ Neurovascular disorders, Inflammatory vs non-inflammatory ➢ Vein of Galen malformations <p><i>U. Ernemann, Tübingen</i>
<i>S. Benseler, Calgary</i>
<i>R. Chapot, Essen</i></p> <p><i>Free oral presentations</i></p> <ul style="list-style-type: none"> ➢ Brain Functional Connectivity changes 7 years after Neonatal Arterial Ischemic Stroke: A resting state fMRI study ➢ Resting-state connectivity within the fronto-parietal network relates to executive functions in children after arterial ischemic stroke and healthy controls ➢ Correlations in resting-state functional networks and cognitive functions in children with perinatal stroke and healthy controls <p><i>L. Hertz-Pannier, Paris</i>
<i>S. Kornfeld, Bern</i>
<i>N. Ilves, Tartu</i></p> |
|-------------|--|

13:00 Farewell

I. Krägeloh-Mann, Tübingen

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P01

Case series: Bilateral periventricular nodular heterotopia (BPNH) as detected on fetal and maternal MRI, caused by a previously undescribed Filamin A mutation

Sophia Stöcklein, Munich, Germany

P02

Atypical fetal superior temporal sulcus depth asymmetry predicts extraordinary language processing in childhood

Anna-Lisa Schuler, Vienna, Austria

P03

Temporal lobe dysgenesis in fibroblast growth factor receptor 3 (FGFR3) gene

Mariana C. Diogo, Vienna, Austria

P04

Functional Connectivity of the Cerebellum in Preterm born Neonates

Cristina Baldoli, Milan, Italy

P05

Brain volumes and developmental trajectories after preterm birth

Brigitte Vollmer, Southampton, UK

P06

The impact of Necrotising Enterocolitis on brain development in preterm infants: Preliminary report

Brigitte Vollmer, Southampton, UK

P07

Brain volume and cognitive functions in healthy very preterm born children

Nadine Oser, Basel, Switzerland

P08

Resting State fMRI and Cognitive Outcome at 6 and 12 months of age in Healthy Preterm Infants

Pasquale Anthony Della Rosa, Milan, Italy

P09

Dynamic functional network connectivity in BECTS - Effects of focus localization

Martina Hubacher, Basel, Switzerland

P10

Language plasticity after Neonatal Arterial Ischemic Stroke (NAIS): clinical and fMRI evaluation at 7 years of age

Lucie Hertz-Pannier, Paris, France

P11

Symptomatic neonatal arterial ischemic stroke: correlation of diffusion weighted imaging and clinical outcome at two years follow-up

Andreas Wiedemann, Bern, Switzerland

P12

Identification of SNORD118 mutations in patients with Leucoencefalopathy with cysts and calcifications

Roberta Battini, Rom, Italy

P13

The neuroimaging features in two patients with hypomyelinating leukodystrophy-13 associated homozygous mutation in the C11ORF73 gene

Aviva Fattal-Valevski, Tel Aviv, Israel

P14

Hypomyelination with atrophy of the basal ganglia and cerebellum (H-ABC) – the first Polish patient

Monika Bekiesinska-Figatowska, Warsaw, Poland

P15

„Nora Imaging“ – a web-based platform for medical imaging

Constantinos Anastasopoulos, Freiburg, Germany

P16

Comparative analysis of Cerebral Magnetic Resonance Imaging changes in infantile, juvenile and adult patients with Niemann-Pick disease type C

Jan Kern, Tübingen, Germany

P17

Hypoplastic olfactory nerve in a patient with SOX2 anophthalmia syndrome

Hiroko Tada, Tokyo, Japan

P18

Unusual MRI findings in the spinal cord in a case of Kearns-Sayre syndrome

Karuna Shekdar, Philadelphia, USA

P19

Isolated Globus Pallidi hypointensities in type 2 GM1 gangliosidosis

Mahesh Kamate, Belgaum, India

P20

Cerebellar cortico-subcortical signal alterations – do they indicate specific pathology?

Andrea Bevot, Tübingen, Germany

Speakers

- Al Hashimi**, Hakima, Radiology, Salmaniya Medical Complex, Jebelat Hebshi, Bahrain
- Al Saady**, Murtadha, Pediatric Neurology, VU University Medical Center, Amsterdam, The Netherlands
- Anastasopoulos**, Constantinos, Neuropediatrics, University Hospital, Freiburg, Germany
- Baldeweg**, Torsten, Developmental Neuroscience, University College, London, UK
- Barkovich**, James A., Neuroradiology, University of California UCSF, San Francisco, USA
- Bartha-Döring**, Lisa, Biomedical Imaging and Image-guided Therapy, Medical University, Vienna, Austria
- Bender**, Benjamin, Neuroradiology, University Hospital, Tübingen, Germany
- Benseler**, Susanna, Rheumatology, Children's Hospital, Alberta, Canada
- Cayami**, Ferdy, Department of Clinical Genetics, VU University Medical Centrum, Amsterdam, The Netherlands
- Chapot**, René, Neuroradiology, Alfried Krupp Hospital, Essen, Germany
- Clark**, Chris, Developmental Imaging and Biophysics Section (DIBS), Great Ormond Street, Institute of Child Health, London, UK
- Counsell**, Serena, Perinatal Imaging and Health, King's College, London, UK
- De Vries**, Linda, University Medical Center, Utrecht, The Netherlands
- Diogo**, Mariana Cardoso, Radiology, Medical University of Vienna, Vienna, Austria/
Neuroradiology, Centro Hospitalar de Lisboa Central, Lisbon, Portugal
- Dreha-Kulaczewski**, Steffi, Pediatric Neurology, University Hospital, Göttingen, Germany
- Ernemann**, Ulrike, Neuroradiology, University Hospital, Tübingen, Germany
- Fiori**, Simona, Developmental Neuroscience, IRCCS Stella Maris Foundation, Pisa, Italy
- Gärtner**, Jutta, Pediatric Neurology, University Hospital, Göttingen, Germany
- Gröschel**, Samuel, Pediatric Neurology and Developmental Medicine, University Hospital, Tübingen, Germany
- Guzetta**, Andrea, Neurology, Neuroradiology, University of Pisa, Italy
- Hehr**, Ute, Human Genetics, University Hospital, Regensburg, Germany
- Hertz-Pannier**, Lucie, Inserm, Neurospin, CEA Paris-Saclay, France
- Horber**, Veronka, Pediatric Neurology and Developmental Medicine, University Hospital, Tübingen, Germany
- Ilves**, Nigul, Radiology, University Hospital, Tartu, Estonia
- Jurkiewicz**, Michael, The Children's Hospital of Philadelphia and the Perelman School of Medicine at the University of Pennsylvania, Philadelphia, USA
- Kälin**, Sonja, Neuropaediatrics, Development and Rehabilitation, Inselspital, University Hospital, Bern, Switzerland
- Kasprian**, Gregor, Neurology, Medical University, Vienna, Austria
- Klose**, Uwe, Neuroradiology, University Hospital, Tübingen, Germany
- Kornfeld**, Salome, Neuropaediatrics, Development and Rehabilitation, Inselspital, University Hospital, Bern, Switzerland

Speakers

- Krägeloh-Mann**, Ingeborg, Pediatric Neurology and Developmental Medicine, University Hospital, Tübingen, Germany
- Lennartsson**, Finn, Diagnostic Radiology, University Hospital, Lund, Sweden
- Lidzba**, Karen, Pediatric Neuropsychology, Inselspital, University Hospital, Bern, Switzerland
- Liégeois**, Frédérique, Developmental Cognitive Neuroscience, UCL Institute of Child Health, London, UK
- Mancini**, Grazia, Clinical Genetics, Erasmus University Medical Center, Rotterdam, The Netherlands
- Meijler**, Gerda, Neonatology, Children's Hospital Zwolle, The Netherlands
- Moreira**, Nuno Canto, Neuroradiology, University Hospital, Uppsala, Sweden
- Morgan**, Angela, Royal Children's Hospital, Melbourne, Australia
- Patay**, Zoltán, St. Jude Children's Research Hospital, Memphis, USA
- Porto**, Luciana, Neuroradiology, Goethe University, Frankfurt, Germany
- Pouwels**, Petra, Radiology, VU University Medical Center, Amsterdam, The Netherlands
- Prayer**, Daniela, Neuroradiology and Radiology, Medical University, Vienna, Austria
- Rados**, Milan, Neuroradiology, University Hospital, Zagreb, Croatia
- Raybaud**, Charles, Neurology, Hospital for Sick Children, Toronto, Canada
- Scheffler**, Klaus, Neuroradiology, University Hospital, Tübingen, Germany
- Schuhmann**, Martin, Neurosurgery, University Hospital, Tübingen, Germany
- Scola**, Elisa, Neuroradiology, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milano, Italy
- Severino**, Mariasavina, Neuroradiology, Gianna Gaslini Hospital, Genova, Italy
- Sleurs**, Charlotte, University Hospital, Leuven, Belgium
- Staudt**, Martin, Neuropediatrics, Schön Klinik, Vogtareuth, Germany
- Steinlin**, Maya, Inselspital, University Hospital, Bern, Switzerland
- Stöcklein**, Sophia, Institute of Clinical Radiology, Ludwig-Maximilians University, Munich, Germany
- Tournier**, J.-Donald, Biomedical Engineering, Division of Imaging Sciences & Biomedical Engineering, King's College London, UK
- Van der Knaap**, Marjo, Pediatric Neurology, Free University, Amsterdam, The Netherlands
- Verly**, Marjolein, Neurosciences, ExpORL, KU Leuven, Leuven, Belgium
- Vermeulen**, Jeroen, Pediatric Neurology, University Medical Center, Maastricht, The Netherlands
- Vollmer**, Brigitte, Clinical Neurosciences, University Hospital, Southampton, UK
- Walter**, Martin, Psychiatry, University Hospital, Tübingen, Germany
- Wehrl**, Hans, Preclinical Imaging, University Hospital, Tübingen, Germany
- Wilke**, Marko, Pediatric Neurology and Developmental Medicine, University Hospital, Tübingen, Germany
- Wolf**, Nicole, Pediatric Neurology, Free University, Amsterdam, The Netherlands
- Zunic**, Iris, Croatian Institute for Brain Research, Zagreb, Croatia

General Information

Registration

For registration please visit www.ecmrn2017.com. Early registration is available, the full registration rate will be applied for any forms received after **April 18, 2017**. Reservations for the various events must be indicated on the registration form. Included are the name badge, admission to the welcome reception and the scientific sessions, congress documentation, lunch on Thursday and Friday, and coffee and tea breaks. When registering locally at the congress information desk, you will receive a ticket for unlimited local transport for the duration of the congress.

Congress registration	Before April 18, 2017	After April 18, 2017
Regular Rate	€ 450	€ 550
Student Rate *	€ 225	€ 275
Workshops		
Regular Rate	€ 150	€ 200
Student Rate *	€ 75	€ 100
Social Dinner	€ 65	

*Proof of student status has to be provided by a copy of student identity card.

Accommodation

Hotel options are listed on the congress website.

Media Requirements

Talks will be accepted as PowerPoint presentations only, acceptable formats are versions up to PowerPoint 2010. Files have to be submitted to the media room at least 60 minutes before the start of the respective session, and will be accepted on CD or USB medium only. As bringing your own laptop is not allowed, please make sure your presentation runs on another computer by assuring all necessary files (especially images and video sequences etc.) are available.

Technical Support

Technical support and assistance will be provided during the conference, please inquire at the welcome desk. If you have any questions, please contact the congress organization office.

CME

Continuous medical education credits have been applied for from the local physician's chamber.

Poster Specifications

Suggested poster size is 841 mm x 1189 mm (A0), but formats of up to 980 mm x 1500 mm are possible. Poster orientation is portrait, not landscape. Mounting of posters is possible as of Thursday, 8:00 am. Mounting material will be made available.

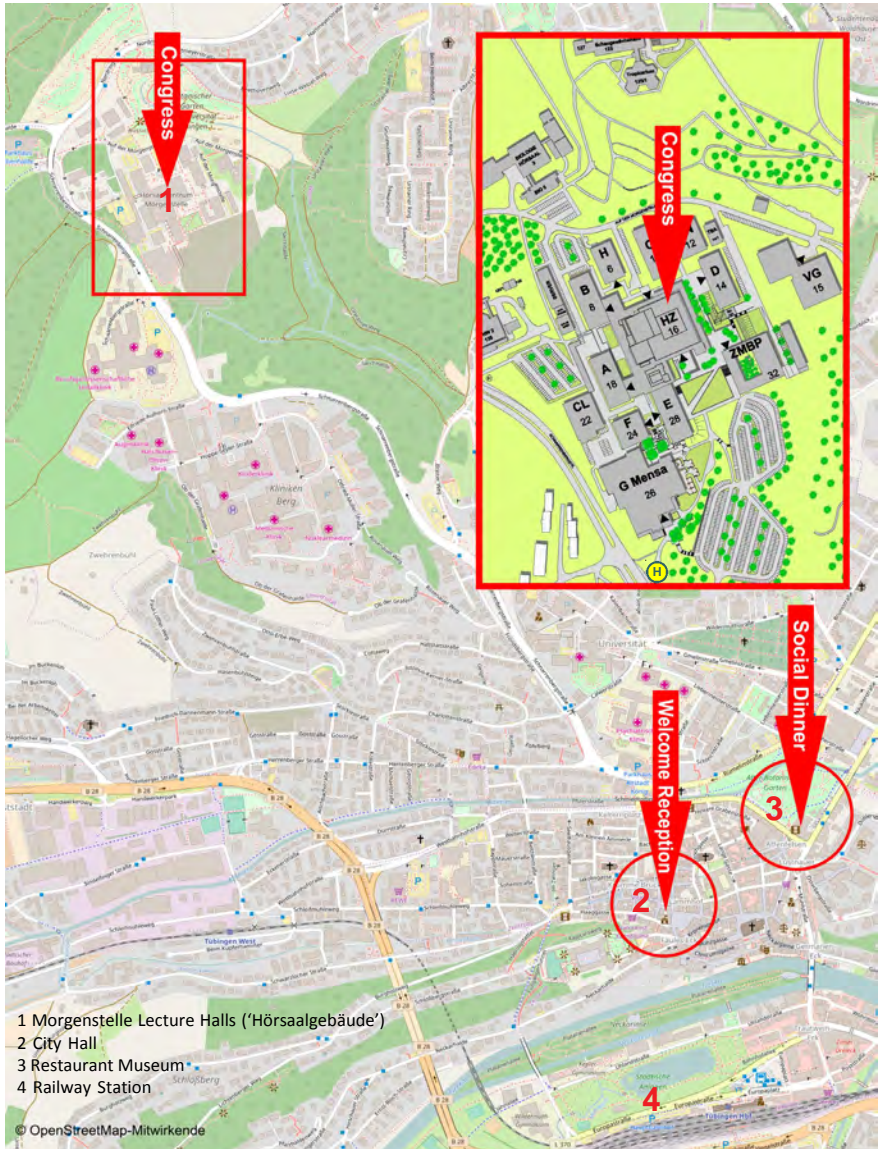
Abstracts

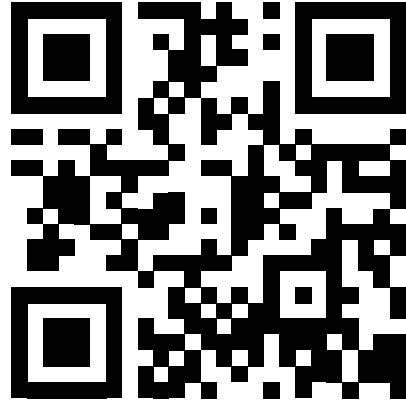
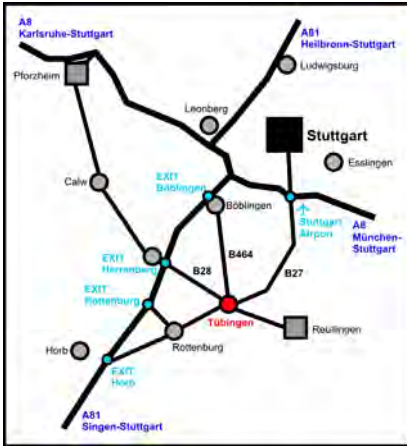
All submitted abstracts are made available in electronic format and can be found online at <http://ecmrn2017.com/ecmrn-abstracts.pdf> or by scanning the QR code on the right.



Venues

Tübingen is a charming historic university town in Southwest Germany, close to Stuttgart airport and with excellent rail connections. The congress will be held at the „Hörsaalzentrum Morgenstelle“, Morgenstelle 16, in the natural science campus. This campus is easily reached by bus (bus stop „BG Unfallklinik“, served by lines 5, 13, 14, 17, 18, X15). The welcome reception will be held at Tübingen’s historic city hall, Am Markt 1, in the middle of the old town. The social dinner will be held at the Restaurant Museum, Wilhelmstraße 3, Tübingen.





www.ecmrn2017.com

**Welcome to the ECMRN 2017
in the middle of Europe!**

