16th Meeting of the European Society of Neurosonology and Cerebral Hemodynamics
20 – 23 May 2011, Munich, Germany

Preliminary Program

ESNCH
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Compumedics Germany GmbH
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Dear Ladies and Gentlemen,
I would like to warmly welcome you to the 16th ESNCH Congress. I am pleased that you have once again chosen Munich as your venue where, back in 1996, the foundations were laid for the successful global development of new ultrasound diagnostic procedures and new therapeutic techniques in neurology.

The ultrasound procedure is an outstanding method for depicting the course of a pathological process such as a stroke in a quick, painless and non-invasive manner. The German Society for Neurology estimates that strokes are developing into the greatest danger for health. According to the data of the Erlangen Stroke Register, the number of initial strokes is currently already 180 cases per 100,000 residents and year.

Qualified region-wide stroke care creates major challenges for healthcare policy. In addition to the supraregional Stroke Units, two telemedical networks – TEMPiS for the region of South-East Bavaria and STENO for the region of Northern Bavaria – have been accepted into the regular healthcare in Bavaria. On the basis of its impressive results for the well-being of patients, the idea of spreading neurological competence and practical experience has attracted attention beyond Bavaria and Germany.

Prevention and the promotion of health are important focal points of Bavarian healthcare policy. Projects were funded with 3.3 millions euros for this purpose in 2010. We want to motivate the Bavarian population to practise health-promoting lifestyles and therefore strengthen personal responsibility for health. The most frequent diseases of civilisation such as cardiovascular disorders and their secondary diseases like high blood pressure, strokes and diabetes can frequently be prevented in this manner. As a result, we make an important contribution to increasing the individual quality of life and simultaneously ensure that costs are considerably reduced in the healthcare system.

I wish your conference every success and I wish all of the participants a pleasant and productive visit to Munich.

Dr. Markus Söder MdL
Bavarian State Minister of the Environment and Public Health
Dear Colleagues and Friends,

It is our great pleasure to invite you to the 16th Meeting of the European Society of Neurosonology and Cerebral Hemodynamics in Munich. Many of you will remember the first meeting of the ESNCH Society, which took place here in Munich in 1996, and which became the cornerstone for further successful cooperation in developing new ultrasonographic diagnostics and even for new therapeutic techniques in neurology. The subsequent annual European meetings have become a popular platform for scientific exchange for all who are interested in neurosonology – not only in Europe, but also worldwide. We are very pleased to again have the opportunity to continue this successful tradition in Munich in 2011.

This meeting will provide updated information about research findings on normal and pathological cerebral hemodynamics as well as in all medical fields related to neurosonology, highlighting their relevance to the clinician. Additionally, basic and advanced tutorials on Doppler- and duplex ultrasonography of cerebral vessels will be held. For those who would like to test their sonographic knowledge, the examination for the „International Certification for Neurosonology“ will be offered during the meeting.

Finally, we hope that in addition to participating in the conference you will also take some time off to enjoy the atmosphere of the beautiful city of Munich. You can explore the historic center and discover the famous beer gardens, fairy-tale castles, and other cultural and historical sights. The month of May is often the most pleasant time of year for visiting Bavaria. We are looking forward to meeting you in Munich.

Prof. Dr. Eva Bartels
Conference Chair
**CONFERENCE CHAIR**
Prof. Dr. Eva Bartels

**SECRETARY**
PD Dr. Holger Poppert

**LOCAL ORGANIZING COMMITTEE**
S. Bartels  
B. Eckenweber  
R. Feurer  
C. Lege  
F. Schlachetzki  
C. Winkler

**EXECUTIVE COMMITTEE**
ESNCH  
President: L. Csiba  
G. Baltgaile  
C. Baracchini  
E. Bartels  
M. Del Sette  
J. Klingelhöfer  
C. Molina  
K. Niederkorn  
E.B. Ringelstein  
D. Russell  
M. Siebler  
M. Sturzenegger

**INTERNATIONAL SCIENTIFIC COMMITTEE**
R. Aaslid, Switzerland  
A. Alexandrov, USA  
E. Azevedo, Portugal  
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G. Seidel, Germany  
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M. Siebler, Germany  
M. Silvestrini, Italy  
V. Skvortsova, Russia  
N. Sternic, Serbia  
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E. Titianova, Bulgaria  
P.J. Touboul, France  
P. Traubner, Slovakia  
P. Turcani, Slovakia  
J.M. Valdueza, Germany  
E. Vicenzini, Italy  
G.M. von Reutern, Germany  
U. Walter, Germany  
L. Wong, China

**IMPORTANT DATES TO REMEMBER**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>27 January 2011</td>
<td>Deadline for abstract submission</td>
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<tr>
<td>28 February 2011</td>
<td>Deadline for early registration (reduced fee)</td>
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<tr>
<td>24 March 2011</td>
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### PROGRAM AT A GLANCE

<table>
<thead>
<tr>
<th>Friday, May 20</th>
<th>Saturday, May 21</th>
<th>Sunday, May 22</th>
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<td>Session III</td>
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<tr>
<td>09:00</td>
<td>Advanced Tutorials – Theory</td>
<td>Session IV</td>
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<tr>
<td>09:30</td>
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<td>The Role of Internet in Diagnostics…</td>
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<tr>
<td>10:00</td>
<td>Advanced Tutorials – Practical Demonstrations</td>
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<tr>
<td>10:30</td>
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<td>Veins &amp; Brains</td>
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<tr>
<td>11:00</td>
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<td>ESNCH Theoretical Exam</td>
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<td>Session V</td>
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<tr>
<td>12:00</td>
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<td>Asymptomatic Carotid Artery Stenosis</td>
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<td>TEVA Pre-Conference Lunch-Symposium</td>
<td>Session VIII</td>
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<td>Novel Technologies II</td>
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<td>Opening Ceremony, Lecture of Excellence</td>
<td>Lunch Break</td>
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<td>Basic Tutorials – Theory I</td>
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<tr>
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<td>Heart &amp; Brain</td>
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<tr>
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<td>Session VI</td>
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<td>Novel Technologies I</td>
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<td>Basic Tutorials – Theory II</td>
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<td>ESNCH Practical Exam</td>
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<td>Comments on Poster Session II</td>
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<td>Basic Tutorials – Hands-on</td>
<td>Session II</td>
<td>17:30</td>
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<tr>
<td>18:00</td>
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<td>Stroke, Genetics and Ultrasound</td>
<td>18:00</td>
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<td>18:30</td>
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<td>General Assembly of the ESNCH</td>
<td>18:30</td>
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<td>19:00</td>
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<td>Comments on Poster Session I</td>
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<td>19:30</td>
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<td>Welcome Reception</td>
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TUTORIALS

14:00 – 18:30  Basic Tutorials: English

(T1) Technical Basics
Rainer Brucher (Ulm, Germany)

(T2) Carotid arteries: Classification of Stenosis
Jürgen Klingelhöfer (Chemnitz, Germany)

(T3) Sonography of the Vertebral Arteries
Galina Baltgaile (Riga, Latvia)

(T4) Transcranial Duplex Sonography
Ralf Dittrich (Münster, Germany)

(T5) Musculoskeletal Ultrasound
Syed Amir Gilani (Lahore, Pakistan)

Hands-on

14:00 – 18:30  Basic Tutorials: German

(T6) Technische Grundlagen
Mario Siebler (Essen, Germany)

(T7) A.carotis: Untersuchungstechnik, IMT und Fallstricke
Dirk Sander (Tutzing, Germany)

(T8) Vertebralarterien: Untersuchung und Fallstricke
Martin Ritter (Münster, Germany)

(T9) A.carotis: Stenoseklassifikation
Gerhard-Michael von Reutern (Bad Nauheim, Germany)

(T10) Transkranielle Duplexsonographie: Technik und pathologische Befunde
Felix Schlachetzki (Regensburg, Germany)

Hands-on

13:00 – 18:30  Basic Tutorials: Technicians

(T11) The Technicians’ View – Round Table Discussion
Beate Eckenweber, Claudia Leege, Theresia Rhiel (Munich, Germany)

(T12) Untersuchung des Karotisstromgebiets
Max Nedelmann (Giessen, Germany)

(T13) Untersuchung der Vertebralarterien
Klaus Gröschel (Göttingen, Germany)

(T14) Transkranielle Duplexsonographie
Erwin Stolz (Giessen, Germany)

Hands-on
### TUTORIALS

#### 08:00 – 09:40  
Advanced Tutorials: Theory  

- **(T15)** PFO  
  *Susanne Horner (Graz, Austria)*  
- **(T16)** Venous system  
  *José Valdueza (Bad Segeberg, Germany)*  
- **(T17)** Cerebral Parenchyma  
  *Uwe Walter (Rostock, Germany)*  
- **(T18)** Vasomotoric Reactivity  
  *Bojana Zvan (Ljubljana, Slovenia)*

#### 10:10 – 12:10  
Advanced Tutorials: Practical demonstrations with video projection  

- **(T19)** Cerebral Perfusion  
  *Günter Seidel (Hamburg, Germany)*  
- **(T20)** Plaque Perfusion  
  *Konrad Stock (Munich, Germany)*  
- **(T21)** Peripheral Nerves  
  *Henrich Kele (Hamburg, Germany)*  
- **(T22)** Transcranial Duplex Sonography, Pathological Cases  
  *Marek Jauss (Mühlhausen, Germany)*

#### 12:20 – 13:20  
TEVA Pre-Conference Lunch-Symposium  

How to find a Parkinson patient?  
Update on Diagnostic and Therapeutic Options  
*Uwe Walter (Rostock, Germany), Jürgen Winkler (Erlangen, Germany)*
### Opening Ceremony

*Chairpersons: E. Bartels (Munich, Germany)  
D. Russell (Oslo, Norway)*

**The ESNCH 2011 Lecture of Excellence:**  
Mechanical Recanalization in Acute Stroke  
*Thomas Liebig (Cologne, Germany)*

### Session I: Heart & Brain

*Chairpersons: V. Oliveira (Lisbon, Portugal)  
E. Bartels (Munich, Germany)*

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Chairpersons</th>
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</thead>
</table>
| 14:00 – 14:20 | Contribution of microembolic signal detection in cardioembolic stroke  
               | E. Bernd Ringelstein (Münster, Germany) | E. Bernd Ringelstein (Münster, Germany) |
| 14:20 – 14:40 | Atrial fibrillation: New drugs for stroke prevention  
               | David Russell (Oslo, Norway)          | David Russell (Oslo, Norway) |

### Poster Session I

*Chairpersons: M. Jauss, P. Traubner, B. Zvan, J.M. de Bray,  
D. Skoloudik, C. Molina*

### Session II: Stroke, Genetics and Ultrasound

*Chairpersons: T. Shiogai (Kyoto, Japan)  
V. Demarin (Zagreb, Croatia)*

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<tr>
<th>Time</th>
<th>Topic</th>
<th>Chairpersons</th>
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</table>
| 16:40 – 17:00 | Genetics & cerebrovascular diseases – think about it!  
               | Martin Dichgans (München, Germany)            | Martin Dichgans (München, Germany) |
| 17:00 – 17:20 | Neurosonology surrogate markers of atherosclerosis in genetic research  
               | Tatjana Rundek (Miami, USA)                  | Tatjana Rundek (Miami, USA) |

### Comments on Poster Session I

*Chairpersons: N. Bornstein (Tel-Aviv, Israel)  
M. Sturzenegger (Bern, Switzerland)*

### Welcome Reception

13:30 – 14:00  
**Opening Ceremony**

14:00 – 15:20  
**Session I: Heart & Brain**

15:20 – 16:40  
**Poster Session I**

16:40 – 18:00  
**Session II: Stroke, Genetics and Ultrasound**

18:00 – 18:45  
**Comments on Poster Session I**

18:45 – 20:30  
**Welcome Reception**
09:00 – 10:30  Session III: Cerebral Hemodynamics in Ischemic Stroke
Chairpersons:  N. Sternic (Belgrade, Serbia) 
J. Klingelhöfer (Chemnitz, Germany)

(S5) Importance of collaterals in intracranial arterial stenosis and occlusion
Lawrence Wong (Hong Kong, China)

(S6) Hemodynamic causes of deterioration in acute stroke
Georgios Tsivgoulis (Alexandroupolis, Greece)

Oral presentations

09:00 – 10:30  Session IV: The Role of Internet in Diagnostics, Training and Research
Chairpersons:  M. Siebler (Essen, Germany) 
C. Baracchini, (Padova, Italy)

(S7) Internet studies (with online demonstration)
Susanne Horner (Graz, Austria)

(S8) Telestroke – how does it work?
Heiner Audebert (Berlin, Germany)

(S9) Teleultrasound in the surgery theatre
Werner Mess (Maastricht, Netherlands)

(S10) Future applications of remote clinical decisions
Georg Rose (Magdeburg, Germany)

Oral presentations

11:00 – 13:00  Session V: Therapeutic “no man’s land“ – Asymptomatic Carotid Stenosis
Chairpersons:  M. del Sette (Genova, Italy) 
N. Bornstein (Tel-Aviv, Israel)

(S11) Detection and classification: Non-invasive methods and guidelines
László Csiba (Debrecen, Hungary)

(S12) View of a neuroradiologist: CEA – treatment of choice!
Hermann Berger (München, Germany)

(S13) View of a vascular surgeon: CAS – Stenting even better!
Hans-Henning Eckstein (München, Germany)

(S14) Don’t touch – best treatment is medical!
Natan Bornstein (Tel-Aviv, Israel)

(S15) Value of neurosonography for decision making?
Kurt Niederkorn (Graz, Austria)

Oral presentations
### Scientific Sessions

<table>
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<tr>
<th>Time</th>
<th>Event</th>
<th>Chairpersons</th>
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<tr>
<td>13:00 – 14:45</td>
<td>Poster Session II</td>
<td>M. Siebler, P. Turcani, M. Mijajlovic, L. Olah,</td>
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<td>S. Castellani, G. Baltgaille</td>
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<tr>
<td>13:30 – 14:30</td>
<td>Consensus Meeting: Plaque Perfusion</td>
<td>E. Vicenzini (Rome, Italy)</td>
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<td>H. Poppert (Munich, Germany)</td>
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<tr>
<td>14:45 – 16:15</td>
<td>Session VI: Novel Technologies I</td>
<td>H. Furuhata (Tokyo, Japan)</td>
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<td>H. Poppert (Munich, Germany)</td>
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<td>(S16) Brain perfusion, sonothrombolysis and CNS drug delivery – neurosonography in 2020</td>
<td>Stephen Meairs (Mannheim, Germany)</td>
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<td>(S17) Imaging of plaque perfusion using contrast-enhanced ultrasound</td>
<td>Edoardo Vicenzini (Rome, Italy)</td>
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<td>Oral presentations</td>
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<tr>
<td>16:30 – 17:15</td>
<td>Comments on Poster Session II</td>
<td>M. Kaps (Giessen, Germany)</td>
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<td>J. Molto (Alicante, Spain)</td>
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### Main Sponsors

- **Compumedics - DWL**
- **Bracco**
- **Esaote**
- **Siemens**
- **Teva**
- **Lundbeck**
09:00 – 10:30  
**Session VII: Veins and Brains**  
Chairpersons:  
J. Carneado (Madrid, Spain)  
G. Meneghetti (Padova, Italy)  
(S18) Brain drain – hemodynamics of the cerebral venous system  
Stefan Schreiber (Berlin, Germany)  
(S19) Fact or fiction: Chronic Cerebro-Spinal Venous Insufficiency (CCSVI)  
Claudio Baracchini (Padova, Italy)  
Oral presentations

11:00 – 13:00  
**Session VIII: Novel Technologies II**  
Chairpersons:  
E. Titianova (Sofia, Bulgaria)  
A. Alexandrov (Birmingham, AL, USA)  
(S20) Act on stroke  
Bernd Hofmann (Erlangen, Germany), E. Bernd Ringelstein (Münster, Germany)  
(S21) Functional guidance in intracranial tumor surgery  
Bernhard Meyer (Munich, Germany)  
(S22) Combined MR-Systems as a chance in stroke diagnostics  
Michael Pflaum (Erlangen, Germany)  
Oral presentations

14:00 – 15:00  
**Session IX: My Worst Case / My Best Case**  
Chairpersons:  
F. Schlachetzki (Regensburg, Germany), E.B. Ringelstein (Münster, Germany)  
Introduction  
Felix Schlachetzki (Regensburg, Germany)  
Oral presentations

15:00 – 16:00  
**Session X: Call for Neurosonography Multicenter Trial Collaborators**  
Chairpersons:  
E.B. Ringelstein (Münster, Germany)  
F. Schlachetzki (Regensburg, Germany)  
Introduction  
E. Bernd Ringelstein (Münster, Germany)  
Oral presentations
16:00 – 16:30   Closing Ceremony & Invitation to the 17th ESNCH Meeting 2012  
Chairpersons:  Eva Bartels (Munich, Germany)  
Claudio Baracchini (Padova, Italy)

EXAMINATION FOR THE INTERNATIONAL CERTIFICATION FOR NEUROSONOLOGY

Saturday, 21 May 2011
10:10 – 12:10   ESNCH – Theoretical Exam  
G.-M. von Reutern, S. Bartels, S. Horner
15:20 – 16:40   ESNCH – Practical Exam  
G.-M. von Reutern, S. Bartels, S. Horner

SCIENTIFIC TOPICS

1. Contrast enhanced ultrasound  
2. Atherosclerotic plaque, IMT  
3. Ultrasound in the follow up of stent placement  
4. PFO diagnostics and clinical impact  
5. Diagnostics in acute stroke management  
6. Therapies in acute stroke, sonothrombolysis  
7. Functional TCD, vasomotor reactivity  
8. Acoustic targeted drug delivery to the brain  
9. Emboli detection  
10. Pitfalls in neurosonography, Case reports and my “worst case”  
11. Carotid surgery / Angioplasty  
12. Intraoperative ultrasound  
13. Ultrasonography in intensive care  
14. Neurodegenerative disease  
15. Ultrasonography in dementia  
16. Venous system  
17. Peripheral nerves, muscles  
18. Novel technologies  
19. News from the industry  
20. Multicenter studies, registries and call for collaborations
GENERAL INFORMATION

Congress Venues

20 – 22 May 2011
Technische Universität, Klinikum rechts der Isar
Auditorium
Ismaninger Straße 22
81675 München

23 May 2011
SiemensForum
Oskar-von-Miller-Ring 20
80333 München

Conference Dates

20 – 23 May, 2011

Conference Chair

Prof. Dr. Eva Bartels
Center for Neurological Vascular Diagnostics
Weinstraße 5
80333 München
www.neurosonologie.de

Scientific Secretariat

PD Dr. Holger Poppert
Technische Universität, Klinikum rechts der Isar
Ismaninger Straße 22
81675 München
E-mail: holger.poppert@neurovasc.de

Congress Organisation & Exhibition Management

Congrex Deutschland GmbH
Potsdamer Platz 11
10785 Berlin

Fon: +49 (30) 25 89-4632
Fax: +49 (30) 25 89-4101
E-mail: esnch@congrex.com
Web: www.congrex.com

Industrial Exhibition

An exhibition of the latest technical equipment and pharmaceutical products will be held on May 21 and 22, 2011. For information regarding the exhibition please contact esnch@congrex.com.

Language

The official language of the congress is English. There will be no translations during the sessions

Online Abstract Submission & Registration: www.neurosonology2011.de
Abstract Submission Guidelines
The Scientific Committee welcomes the submission of abstracts for oral and poster presentation at the ESNCH meeting. The abstracts will be evaluated by the Scientific Committee and notification on acceptance/rejection of the abstracts will be emailed end of February 2011 by Congrex Deutschland GmbH. All accepted abstracts will be published in “Cerebrovascular Diseases”. Abstracts should be submitted electronically by 27 January, 2011 and cannot be submitted by fax, hard copy or email. For abstract submission please visit the conference website www.neurosonology2011.de. An acknowledgement of receipt of your submission will be sent to the stated e-mail address. If you do not receive an email within 24 hours, your submission was not completed and needs to be re-submitted. The corresponding author will receive all correspondence concerning the abstract and is responsible for informing the other authors of the status of the abstract. The presenter of the abstract has to be registered for the meeting.

REGISTRATION

Registration Fees

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<tr>
<td>Members (ESNCH, NSRG)</td>
<td>350 €</td>
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<td>Non-members</td>
<td>380 €</td>
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Please note, that the corresponding VAT (at the present time 19%) is included in all listed fees.

Registration Cancellations and Refunds
All cancellations must be sent to Congrex Deutschland GmbH in writing by e-mail (esnch@congrex.com). For cancellations until 1 February 2011 50% of the registration fee will be refunded. For cancellations after 1 February 2011 there will be no refund.
MAP OF CONGRESS VENUE

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JOURNEY TO THE CONGRESS VENUES

To Technische Universität, Klinikum rechts der Isar (Congress venue 20 – 22 May 2011)
From the Munich Airport:
Take the Airport-Line S8 (S-Bahn) to “Ostbahnhof” (every 20 minutes, driving time approx. 30 min), change to underground U5 (U-Bahn) towards Laimer Platz and get off the train at the next station (Max-Weber-Platz). Follow the signs “Einsteinstraße” and “Einsteinstraße, Klinikum rechts der Isar”. The Auditorium is located just 30 m from the U-Bahn exit.
You can use also the train S1 or S8 until the central train station (Hauptbahnhof).
From the central train station:
Follow the signs which guide you to the underground station and take line U4/Arabellapark or U5/Neuperlach. Get off the train at Max-Weber-Platz, which is only four stations away from the central train station. Follow the signs “Einsteinstraße” and “Einsteinstraße, Klinikum rechts der Isar”. The Auditorium is located just 30 m from the U-Bahn exit.

To SiemensForum (Congress venue 23 May 2011)
We suggest to use the underground (U-Bahn). SiemensForum is located within five minutes walking distance from the underground station Odeonplatz (U3/U6 or U4/U5). From the central train station (Hauptbahnhof) use lines U4 direction Arabellapark or U5/Neuperlach-Süd and exit train at Odeonsplatz (driving time 3 min).

HOTEL / ACCOMMODATION

For the participants of the Congress room contingents with special room rates have been reserved.
The deadline for booking with special room rates is 24 March 2011.
Please note that rooms will be treated on a “first come, first served” basis. Be aware that May is an attractive time for touristic visits of Munich and that late booking may become difficult.
For more detailed information please visit the conference website www.neurosonology2011.de
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Transforming Discovery into Care
Eva Bartels

Color-Coded Duplex Ultrasonography of the Cerebral Vessels

Atlas and Manual

Bilingual Eurobook (English/German)

Forewords by L.R. Caplan and E.B. Ringelstein

The color-coded duplex sonography as non-invasive technique for the evaluation of vessels is more and more preferred to the riskier invasive contrast medium representation. Thanks to improved high resolution equipment, the technique’s meaningfulness increases constantly.

In this well-structured book, the author presents a systematically examination techniques and interpretations of the color-coded duplex ultrasonography of all cerebral vessels, i.e. the carotid arteries, the vertebral arteries and the intracranial vessels as well as the venous system. The advantage of Power Doppler Imaging are also discussed.

- Anatomy and basic physical data are briefly described.
- Examination techniques, normal findings, normal variants and pathologic findings are presented in excellent color pictures and corresponding schematic drawings.
- Every chapter encloses hints to avoid pitfalls and misinterpretations.