9–12 October 2019
Budapest

Impairment, disability, handicap:
So little done, so much to do

Programme

www.ecnr-congress.org
11th WORLD CONGRESS FOR NEUROREHABILITATION
jointly with
35th CONGRESS OF THE FRENCH SOCIETY of Physical and Rehabilitation Medicine

7–10 October 2020
Lyon, France

Submit your abstract now!

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ORGANISATIONAL INFORMATION AND COMMITTEES

Venue
Budapest Congress Center
Jagelló út 1–3  I  1123 Budapest, Hungary
www.bcc.hu

EFNR executive board  I  Core organising committee
Dafin Mureșanu (RO), president
Volker Hömberg (DE), programme chair
Leopold Saltuari (AT)
Giorgio Sandrini (IT)
Heinrich Binder (AT)
Karin Diserens (CH)

Local congress presidents ECNR 2019
László Vécsei  I  University of Szeged  I  Department of Neurology
László Csiba  I  University of Debrecen  I  Department of Neurology

Collaborating societies
Bulgarian Society for NeuroRehabilitation
European Academy for Neurology  I  EAN
NeuroRehabilitation Section of the Hungarian Rehabilitation Society
Romanian Society for Neuropsychological and Motor Rehabilitation  I  RSNMR
Romanian Society for Neurorehabilitation  I  RoSNeRa
Society for the Study of Neuroprotection and Neuroplasticity  I  SSNN
World Federation of Neurology  I  WFN
World Federation for NeuroRehabilitation  I  WFNR
World Stroke Organisation  I  WSO

Professional congress organiser
Conventus Congressmanagement & Marketing GmbH
Marlen Schiller and Ariane Kärger
Phone +49 3641 31 16-358/-325
ecnr@conventus.de  I  www.conventus.de
Dear colleagues and friends,

We are lucky to work in a field that is both diverse and dynamic. Within the last years, we have been able to establish so many different innovations for the benefit of our patients.

We keep in mind the great words of Thomas Stearns Elliot: “Only those who will risk going too far can possibly find out how far one can go!”

Today we find ourselves with a high level of quality, but there is still so much to do. Neurorehabilitation holds so much more potential!

The European Congress of NeuroRehabilitation 2019 in Budapest, Hungary, aims to keep the important dialogue between the countries in Europe, but also between colleagues from all over the world lively and flourishing. Our goal requires continuous research as well as collaborative projects in order to avoid permanent damage and disabilities as consequences of cerebral and cardiovascular diseases, accidents and injuries, or functional disorders. This congress of experts will provide transnational and interdisciplinary opportunities to learn from one another and include those findings into daily work practices.

We are looking forward to a lively exchange at the ECNR 2019!

Yours sincerely,
Dafin Mureşanu
Dear colleagues, dear friends,

The European Federation for NeuroRehabilitation (EFNR) welcomes you to their 4th European Congress for NeuroRehabilitation from 9–12 October in Budapest, Hungary.

Similarly to previous editions of our congress, the ECNR will retain its international character this year by hosting over 60 sessions with numerous speakers from all over the world. The EFNR is looking forward to offering a platform to experts in all areas of neurology and rehabilitation.

We will host several guest symposia including several European and non-European scientific societies like Hungarian and the Romanian Societies for Neurorehabilitation, the European Academy for Neurology, the World Federation of Neurology, and the World Stroke Organisation.

It is our great pleasure to host this year’s ECNR in Budapest – a city in a stunning natural setting with a rich architectural and historical heritage, offering an unmatched combination of culture, fine cuisine and thermal baths. A city on either side of the majestic Danube: Buda, with its romantic streets and alleyways, and Pest, an effervescent cultural centre. In October, Budapest still offers about 6 hours of sun and a pleasant autumnal temperature of 15 to 17 °C.

We are looking forward to a stimulating scientific and social event.

László Csiba & László Vécsei
Abstracts
The accepted abstracts of the ECNR 2019 are published as pdf download at www.ecnr-congress.org. After the conference, all presented abstracts will be published in an online supplement of the journal “Neurologie & Rehabilitation” by Hippocampus publishing.

Badges
Access to all scientific sessions and to the exhibition is only possible with your personal name badge, which you will receive at the check-in desk. All participants are requested to wear their badges throughout the congress.

Best oral presentations and Young experts’ battle
The eight best abstracts will be presented in two sessions on Saturday and will be awarded with 200 EUR each. Furthermore, one winner will be elected during the Young experts’ battle on Friday and will receive a refund of his registration fees as well as a 300 EUR travel grant. Please note that award winners need to be present at the farewell ceremony to be eligible to receive the prize.

Catering
Coffee, tea and biscuits will be served free of charge in the exhibition during official break times. On Thursday and Friday, certain companies will offer catering during their lunch symposia.

Cloakroom
A cloakroom is available next to the registration desk.

Conference app
A conference app with all programme and exhibition details will be offered for Apple iOS as well as ANDROID smartphones and tablets.
CME credits
The conference organisers applied for certification at the European Accreditation Council for Continuing Medical Education (EACCME®). The EACCME is an institution of the European Union of Medical Specialists (UEMS, www.uems.net). The American Medical Association (AMA) recognises EACCME credits as valid CME credits towards the Physician’s Recognition Award (PRA). To convert EACCME credits into AMA PRA category 1 credits, please contact AMA (www.ama-assn.org/education/earn-credit-participation-international-activities).

To obtain your CME credits, please provide daily proof of presence by scanning your name badge at the provided counter as soon as you enter the congress as well as right before leaving the congress area (i.e. twice a day). Afterwards, you will receive a certificate of attendance indicating the amount of CME credits obtained via e-mail. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity. Later requests are discouraged.

ECNR session planner
Navigate the scientific programme, view sessions by day and category and create your own itinerary to fully exploit your conference experience on www.ecnr-congress.org.

ePoster
The ePoster service desk is located in the Speakers’ preview area. Guided ePoster sessions are scheduled for Wednesday and Friday. All ePosters are available during the whole duration of the conference on the three big terminals as well as at special self-study terminals next to lecture hall Liszt II+III.

Internet
A wireless network will be available throughout the whole building and will be free of charge. There is no password needed.

Opening hours
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<th>Day</th>
<th>Check-in/Speakers’ preview area</th>
<th>Cloakroom</th>
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<td>Thursday</td>
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<td>Friday</td>
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<td>Saturday</td>
<td>08:30–13:45</td>
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<tr>
<td>Time</td>
<td>Bartok II</td>
<td>Lehár II + III</td>
<td>Brahms I + II</td>
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<tr>
<td>11:00–13:00</td>
<td>11:45–13:45</td>
<td>WP4: The art of goal planning and use of ICF</td>
<td>WS5: Pharmacology in neurorehabilitation</td>
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<tr>
<td>Part 3</td>
<td>WS7: Randomised controlled trials, meta analyses, and alternatives</td>
<td>WS8: Neurological music therapy</td>
<td>WS9: Assessment and treatment of dysphagia</td>
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<tr>
<td>Part 4</td>
<td>WS10: Measuring spasticity</td>
<td>WS11: Assessment of disorders of consciousness</td>
<td>WS12: Diagnosis and treatment of aphasic problems</td>
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<td>18:30–20:30</td>
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<td>Welcome reception within the industrial exhibition</td>
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**ePoster sessions 1–3**
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<thead>
<tr>
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<td>09:00–09:30</td>
<td>Pátria Hall</td>
<td>Opening session</td>
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<tr>
<td>09:30–10:15</td>
<td>Bartok II</td>
<td>Presidential lecture</td>
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<td>10:30–12:00</td>
<td>Bartok II</td>
<td>S1: Motor rehabilitation</td>
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<tr>
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<td>Brahms I + II</td>
<td>S2: Stimulation techniques in rehabilitation</td>
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<td>Lehár II + III</td>
<td>S3: Traumatic brain injuries</td>
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<td></td>
<td>Liszt II + III</td>
<td>CS1: Hungarian Rehabilitation Society</td>
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<td></td>
<td>Foyers</td>
<td>OP1: Posture and locomotion</td>
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<td>ePoster for self-study</td>
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<tr>
<td>12:15–13:15</td>
<td>Lunch break</td>
<td>Lunch break and industry supported symposia</td>
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<tr>
<td>13:30–15:00</td>
<td>Bartok II</td>
<td>S4: Central autonomic and cerebral lesions</td>
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<td></td>
<td>Brahms I + II</td>
<td>CS2: SSNN</td>
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<td></td>
<td>Lehár II + III</td>
<td>S5: Control of posture and balance</td>
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<tr>
<td></td>
<td>Liszt II + III</td>
<td>S6: Disorders of consciousness</td>
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<tr>
<td></td>
<td>Foyers</td>
<td>OP2: Acute and early rehabilitation</td>
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<tr>
<td></td>
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<td>Coffee break within the industrial exhibition</td>
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<tr>
<td>15:30–17:00</td>
<td>Bartok II</td>
<td>Young experts’ battle</td>
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<td></td>
<td>Brahms I + II</td>
<td>CS3: EAN</td>
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<td></td>
<td>Lehár II + III</td>
<td>S8: VR applications</td>
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<td></td>
<td>Liszt II + III</td>
<td>CS4: WSO</td>
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<td></td>
<td>Foyers</td>
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*Note: P. xx refers to page number.*
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<tr>
<th>Time</th>
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<th>Lehár II + III</th>
<th>Liszt II + III</th>
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<td>10:00–10:45</td>
<td>Plenary 3</td>
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<tr>
<td>11:00–12:30</td>
<td>S9: Music and semantics</td>
<td>CS5: WFN</td>
<td>S10: Rehabilitation programmes in middle income countries</td>
<td>CS6: Szeged Neurorehabilitation Group</td>
<td>OP3: Stroke I</td>
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<tr>
<td>12:30–14:30</td>
<td>Lunch break and industry supported symposium</td>
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<tr>
<td>13:00–14:15</td>
<td>ePoster sessions 4-6</td>
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<tr>
<td>14:30–16:00</td>
<td>S11: Motor rehab post stroke</td>
<td>RT1: Advancing technologies in neurorehabilitation</td>
<td>S12: Acute neurorehabilitation</td>
<td>CS7: Bulgarian Society for NeuroRehabilitation</td>
<td>OP4: Robots + new technologies</td>
<td>ePoster for self-study</td>
</tr>
<tr>
<td>16:30–18:00</td>
<td>S13: Headache and chronic pain</td>
<td>RT2: Educational approaches</td>
<td>S14: Parkinson’s disease</td>
<td>S15: Early neurorehabilitation in Germany</td>
<td>OP5: Stroke II / Cognition</td>
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<td>Time</td>
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<td>Lehár II + III</td>
<td>Brahms I + II</td>
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<td>09:00–09:45</td>
<td>Plenary lecture 4</td>
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<td>09:00–10:00 ePoster for self-study</td>
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<tr>
<td>10:00–11:30</td>
<td>SIG meeting: Early rehabilitation</td>
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<td>p. 38</td>
<td>p. 38</td>
<td>Best of oral presentations 1</td>
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<td>CS8: Romanian Society of Rehabilitation</td>
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<td></td>
<td>S16: Spinal cord injury</td>
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<tr>
<td>12:00–13:30</td>
<td>S17: Connectomes</td>
<td>p. 40</td>
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<td>p. 41</td>
<td>Best of oral presentations 2</td>
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<td>S18: Neglect</td>
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<td>S19: Tele-rehab and BCI</td>
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<td>13:45–14:30</td>
<td>Closing lecture 5</td>
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<td>14:30–15:00</td>
<td>Farewell</td>
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</table>
We are excited to hold our first interactive teaching day dedicated to our youngsters of the congress. Based on the European medical core curriculum in neurorehabilitation and together with established and other young researchers, you will explore and develop your interests and basic knowledge that will help you follow and fully understand the issues of the upcoming sessions during our congress.

The sessions will take place in the lecture hall Bartok II.

09:30–11:30 Part 1
09:30 Basic structure of rehabilitation
H. Binder (Vienna/AT)

10:00 Goal setting and goal monitoring
K. Fheodoroff (Hermagor/AT)

10:30 Organisation of the rehabilitation team
L. Saltuari (Hochzirl/AT)

11:00 Principles of brain recovery
D. Mureșanu (Cluj-Napoca/RO)

11:45–13:45 Part 2
11:45 Assessment tools for motor problems
T. Platz (Greifswald/DE)

12:15 Computer-based treatments in Aphasia – an overview and an introduction to the use of Automatic Speech Recognition (ASR) in Naming-Tasks
B. Gröne (Allensbach/DE)

12:45 The social brain in neurorehabilitation
S. Clarke (Lausanne/CH)

13:15 EBM and design of clinical studies
T. Platz (Greifswald/DE)

13:45–14:15 Coffee break
<table>
<thead>
<tr>
<th>Time</th>
<th>Part</th>
<th>Session</th>
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<tr>
<td>14:15–16:15</td>
<td>Part 3</td>
<td>Basics of sensory-motor learning</td>
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<td>V. Hömberg (Bad Wimpfen/DE)</td>
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<td>14:45</td>
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<td>Differential therapies in motor rehabilitation</td>
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<td></td>
<td>T. Platz (Greifswald/DE)</td>
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<td>15:15</td>
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<td>The use of physical treatment measures</td>
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<td>V. Hömberg (Bad Wimpfen/DE)</td>
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<td>15:45</td>
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<td>The use of technical devices (robots)</td>
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<td>L. Saltuari (Hochzirl/AT)</td>
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<tr>
<td>16:30–18:30</td>
<td>Part 4</td>
<td>Disorders of consciousness</td>
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<td>16:30</td>
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<td>H. Binder (Vienna/AT)</td>
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<td>17:00</td>
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<td>Disorders of attention and working memory</td>
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<td>S. Crottaz-Herbette (Lausanne/CH)</td>
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<td>17:30</td>
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<td>Disorders of memory</td>
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<td>J. Fish (London/GB)</td>
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<td>18:00</td>
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<td>Disorders of emotional and behavioural control</td>
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<td>J. Fish (London/GB)</td>
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<tr>
<td>Time</td>
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<tr>
<td>09:30–11:30</td>
<td>Workshop 1</td>
<td>Prism adaptation in treatment of attentional disorders</td>
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<td>09:30–11:30</td>
<td>Workshop 2</td>
<td>Palliative medicine in neurorehabilitation</td>
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<tr>
<td>09:30–11:30</td>
<td>Workshop 3</td>
<td>State of the art – motor rehabilitation – upper extremity</td>
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<tr>
<td>11:45–13:45</td>
<td>Workshop 4</td>
<td>The art of goal planning and use of ICF</td>
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<td>11:45–13:45</td>
<td>Workshop 5</td>
<td>Pharmacology in neurorehabilitation</td>
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<td>13:45–14:15</td>
<td>Coffee break</td>
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<tr>
<td>14:15–16:15</td>
<td>Workshop 7</td>
<td>Randomised controlled trials, matter analyses, and alternatives</td>
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<tr>
<td>14:15–16:15</td>
<td>Workshop 8</td>
<td>Neurological music therapy</td>
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</table>
SCIENTIFIC PROGRAMME  I  WEDNESDAY, 9 OCTOBER

WORKSHOPS

14:15–16:15  Workshop 9  I  Assessment and treatment of dysphagia
Room  Liszt II + III
Moderation  E. Alfonsi (Pavia/IT), E. Michou (Manchester/GB)

16:30–18:30  Workshop 10  I  Measuring spasticity
Room  Lehár II + III
Moderation  J. Wissel (Berlin/DE), L. Saltuari (Hochzirl/AT)

16:30–18:30  Workshop 11  I  Assessment of disorders of consciousness
Room  Brahms I + II
Moderation  K. Diserens (Lausanne/CH)

16:30–18:30  Workshop 12  I  Diagnosis and treatment of aphasic problems
Room  Liszt II + III
Moderation  B. Gröne (Allensbach/DE)

18:30–20:30  Welcome reception with ePoster sessions 1–3
(please refer to page 44)
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<th>Time</th>
<th>Event</th>
<th>Room</th>
<th>Chair</th>
</tr>
</thead>
</table>
| 09:00–09:30| Opening session                                           | Pátria Hall | D. Mureșanu (Cluj-Napoca/RO), L. Vécsei (Szeged/HU)  
L. Csiba (Debrecen/HU), V. Hömberg (Bad Wimpfen/DE) |
| 09:30–10:15| Presidential lecture                                      | Pátria Hall | L. Vécsei (Szeged/HU)     |
| 09:30      | Changing philosophy of neurorehabilitation                |          | D. Mureșanu (Cluj-Napoca/RO) |
| 10:30–12:00| Symposium 1 I Motor rehabilitation                         | Pátria Hall | J. Mehrholz (Gera/DE)     |
| 10:30      | The enigma of proportional recovery and motor learning    |          | V. Hömberg (Bad Wimpfen/DE) |
| 11:00      | The concept of “enriched environment”                     |          | D. Boering (Bad Wimpfen/DE) |
| 11:30      | What are intelligent mechanical treatment systems good for in motor rehabilitation? |          | J. Mehrholz (Gera/DE)     |
| 10:30–12:00| Symposium 2 I The use of stimulation techniques in rehabilitation | Bartok II | W.-D. Heiss (Cologne/DE) |
| 10:30      | rTMS therapy in stroke rehabilitation – evidence from systematic reviews and clinical practice recommendations |          | T. Platz (Greifswald/DE) |
| 11:00      | What are useful parameters for transcranial DC stimulation in stroke rehabilitation |          | W. Feng (Charleston, SC/US) |
| 11:30      | Mid-brain stimulation for gait restauration                |          | F. Fluri (St. Gallen/CH)  |
10:30–12:00  Cooperative society 1  |  NeuroRehabilitation
Section of the Hungarian Rehabilitation Society
Room  Lehár II + III
Chairs  G. Fazekas, Z. Dénes (Budapest/HU)

10:30  Professional quality of rehabilitation services and WHO reference classifications
L. Kullmann (Budapest/HU)

10:48  Rehabilitation of patients with traumatic brain injury (TBI) in Hungary
Z. Dénes (Budapest/HU)

11:06  Emotional processes determinating rehabilitation after brain injury
Z. S. Nagy (Budapest/HU)

11:24  Integration of aerobic training into rehabilitation program for improving cardiorespiratory fitness and upper extremity function of unconditioned chronic stroke patients – a randomised controlled study
Z. Jenei, P. Fülöp, J. Horváth (Debrecen/HU)

11:42  Research and development in Hungarian – European cooperation:
G. Fazekas (Budapest/HU)

10:30–12:00  Symposium 3  |  Traumatic brain injuries
Room  Brahms I + II
Chair  D. Wright (Atlanta, GA/US)

10:30  Long term consequences of sports concussions
D. Wright (Atlanta, GA/US)

11:00  Advancement in pharmacological treatments
D. Mureşanu (Cluj-Napoca/RO)

11:30  Central dysautonomia after traumatic brain injury
M.-J. Hilz (Erlangen/DE)
10:30–12:00 Oral presentations I Posture and locomotion
Room Liszt II + III
Chair D. Pérennou (Grenoble/FR)

10:30 Scale for retropulsion – a new scale to quantify postural imbalance in the sagittal plane
OP01 J. Bergmann (Bad Aibling, Munich/DE), C. Krewer (Munich, Bad Aibling/DE)
N. Richter (Bad Aibling/DE), F. Müller, K. Jahn (Bad Aibling, Munich/DE)

10:39 A nationwide survey regarding the actual life situations of patients with thalidomide embryopathy in Japan, 2018
T. Tagami (Kyoto/JP), R. Kayamori, S. Ohnishi (Tokyo/JP)

OP03 A. Wöhrenschimmel, A. Greisberger, A. Sonvilla (Vienna/AT)

10:57 Dalfampridine improves gait velocity but not mobility in daily life after a 6-month follow up in people with multiple sclerosis
OP04 T. Rothschedl (Vienna/AT), G. Diermayr (Heidelberg/DE)
F. Leutmezer (Vienna/AT)

11:06 Modern gait training in spinal cord injuries using a novel powered exoskeleton
OP05 P. Milia, M. Caserio, F. De Salvo, A. Sfaldaroli, C. Grelli, A. Piermatti
S. Merli, A. Spinosa (Umbertide, Perugia/IT)
L. Kleinschmidt (Colorado, CO/US), M. C. Peccini
M. Bigazzi (Umbertide, Perugia/IT)

11:15 Benefits of dynamic joint orthoses for regression of joint contractures in children and adolescents
OP06 K. Drossel, L. van der Stam, A. Pekanovic, C. Schmidt-Lucke
A. Kaindl (Berlin/DE)
11:24 Effects of vestibular rehabilitation after severe traumatic brain injury – a preliminary randomized controlled study
G. Allevi, M. Tramontano, G. Vannozzi, E. Bergamini, V. Belluscio
R. Formisano, A. Cuccaro, M. G. Buzzi (Rome/IT)

11:33 Assessment of the balance and functional status in neurological patients – reliability and validity of the Russian version of the Berg Balance Scale
A. Zimin, D. Yusupova, A. Butkovskaya (Moscow/RU)

11:42 Influence of pusher behavior on starting position of the subjective postural vertical in the frontal plane
K. Fukata, D. Sekine (Hidaka, Tokyo/JP), K. Amimoto (Tokyo/JP)
Y. Fujino (Bunkyo/JP), M. Inoue (Tokyo, Hidaka/JP), M. Inoue
Y. Takahashi, S. Makita, H. Takahashi (Hidaka/JP)

11:51 Physiotherapy in children and adolescents with trisomy 21
V. Ploier-Niederschick (Wels/AT)

12:00–13:30 Lunch break

12:15–13:15 Industry supported symposia
(please refer to page 70)

13:30–15:00 Symposium 4 I The controversy of management of central autonomic and cerebral lesions
Room Pátria Hall
Chair M.-J. Hilz (Erlangen/DE)

13:30 Overview of pure autonomic failure and other primary autonomic disorders and their urogenital manifestations
A. Fanciulli (Innsbruck/AT)

14:00 Diagnostics and management of neurogenic lower urinary tract dysfunction
D. Vodusek (Ljubljana/SI)

14:30 Sexual dysfunction after stroke and MS
M.-J. Hilz (Erlangen/DE)
13:30–15:00  Cooperate society 2  I  Society for the Study of Neuroprotection and Neuroplasticity (SSNN)
Room Bartok II
Chairs D. Mureșanu (Cluj-Napoca/RO), N. Bornstein (Tel Aviv-Yafo/IL)

13:30  Brain recovery after traumatic brain injuries – new clinical trials
D. Mureșanu (Cluj-Napoca/RO)

13:50  Advances in cognitive neurorecovery after stroke
N. Bornstein (Tel Aviv-Yafo/IL)

14:10  Prediction of recovery and outcome after stroke
W.-D. Heiss (Cologne/DE)

13:30–15:00  Symposium 5  I  Control of posture and balance
Room Brahms I + II
Chair A. Geurts (Nijmegen/NL)

13:30  Recent lab-based findings on static and dynamic balance recovery after stroke
A. Geurts (Nijmegen/NL)

13:53  Post-stroke weight bearing asymmetry – a window on spatial cognition
D. Pérennou (Grenoble/FR)

14:16  Are balance exercises beneficial for preventing falls in people post stroke? Information from the updated Cochrane review
G. Verheyden (Leuven/BE)

14:40  Leukoaraiosis, an invisible factor contributes to balance and gait disorders after stroke
14:50 An innovative scenario for robot-assisted upper limb neurorehabilitation based on motor and cognitive functions
S. Mazzoleni, E. Battini, S. Campagnini (Pontedera/IT)
F. Posteraro (Lido di Camaiore/IT)

13:30–15:00 Symposium 6 I Disorders of consciousness
Room Lehár II + III
Chair A. Serino, K. Diserens (Lausanne/CH)

13:30 Outcome of DOC problems in children
G. Kluger (Prien am Chiemsee/DE)

13:53 Pitfalls of diagnosis in DOC in acute care
A. Pincherle (Luxembourg-Kirchberg/LU)

14:16 Multisensory integration in the Peri-Personal Space (PPS) and motor attempt EEG paradigm as a diagnostic tool for DOC
A. Serino (Lausanne/CH)

14:40 Long-term outcomes and predictors or recovery of consciousness in children with disorders of consciousness after a brain injury with the Coma Recovery Scale-Revised
C. Colomer, E. Noé, R. Llorens, J. Ferri (Valencia/ES)

13:30–15:00 Oral presentations 2 I Acute and early rehabilitation
Room Liszt II + III
Chair H. Binder (Vienna/AT)

13:30 To smell or not to smell – that is the question. Clostridium difficile-associated diarrhea identified by odour?
M. Strothjohann, I. Balde, E. Baloutsou, S. Bina, L. Chan Guevara
S. Engelhardt, D. Petkov, P. Kostopoulos (Bad Camberg/DE)

13:39 Disease-specific rehabilitation in women with epilepsy
G. Odintsova, A. Chugunova (St. Petersburg/RU)

13:48 Hyperacute rehabilitation – benefits and challenges
M. Mariappan (Stoke-on-Trent/GB)
13:57 Feasibility of transauricular vagus nerve stimulation at improving behavior in disorders of consciousness
E. Noé, R. Llorens, C. Colomer, J. Ferri (Valencia/ES)

14:06 Corticothalamic metabolism in severe traumatic brain injury with different neurological outcomes
J. Ferri, E. Noé, C. Colomer, R. Llorens (Valencia/ES)

14:15 Development and validation of the Cooperative Activity Stroke Assessment (CASA) – Complementing evaluation of upper limb motor status in stroke survivors
F. Thomas (Zurich/CH), Y. Xu (Shenyang/CN), X. Zhang
N. Wenderoth (Zurich/CH), L. Zhang (Shenyang/CN)
M. Schrafl-Altermatt (Zurich/CH)

14:24 Mapping of 1,633 goals from the tower study reveals a higher proportion of activity and participation-related goals in spasticity patients
K. Fheodoroff, S. Ramusch (Hermagor/AT)
A. Scheschonka (Frankfurt a. M./DE), J. Wissel (Berlin/DE)

14:33 Epilepsy and Autism Spectrum Disorder – sequential plasmatic level and global quality of life assessment in antiepileptic drug treatment in Mali
M. Sangare (Bamako/ML)

14:42 Using clinical data to develop a prognostic model for decannulation in patients with acquired brain injury

14:51 The role of neurosurgical complications and cognitive reserve in the outcome of patients with severe acquired brain injury
R. Formisano, M. Contrada, M. Aloisi, C. Falletta Caravasso (Rome/IT)
G. Colli, F. Lombardi (Correggio/IT), A. Pompucci (Latina/IT)

15:00–15:30 Coffee break
15:30–17:00 Young experts´ battle
Room Pátria Hall
Jury H. Binder (Vienna/AT), L. Saltuari (Hochzirl/AT)
L. Csiba (Debrecen/HU), K. Diserens (Lausanne/CH)

Young specialists (<35 years) selected from submitted abstracts will present their scientific work in short talks. Active participation by using surveys (conference app, see page 7) and a jury will select a speaker who wins the Young experts’ battle award and will be crowned during the farewell ceremony. Please note that award winners need to be present at the farewell ceremony to be eligible to receive the prize.

15:30 Estimation of balance status in hemiparetics – an artificial neural network implementation
G. Kara, F. Altuğ, K. Kavaklioglu (Denizli/TR)
U. Cavlak (Lefke-Northern Cyprus/CY)

15:40 Ground reaction force patterns in post-stroke patients – the effect on spatiotemporal parameters
A. Araújo (Coimbra/PT), M. Vaz (Viseu/PT), R. Silva (Alcabideche/PT)
A. Canelas (Leiria/PT), J. Capelo (Alcabideche/PT), P. Lopes (Porto/PT)
J. Jacinto (Alcabideche/PT)

15:50 Efficacy of transcranial direct current stimulation in patients with developmental dyscalculia in school going children – double-blinded, randomized controlled trial
A. K. Srivastav, S. Chatterjee (Ambala/IN)

16:00 Disability in Nekemte, Ethiopia – the challenges and opportunities in rehabilitation
J. Abeles (London, Exeter/GB), M. Hutchings (Exeter/GB)

16:10 Interhemispheric inhibition – its interhemispheric asymmetry and trial-to-trial variability
M. Nazarova, M. Mitina (Moscow/RU), S. Kulikova (Perm/RU)
V. Ushakov, S. Kartashov, P. Novikov (Moscow/RU)
V. Nikulin (Moscow/RU, Leipzig/DE)
16:20 Numerical abilities of Hungarian aphasi patients
YE06 O. Kis, A. Molnár-Tóth, L. Ivaskó, K. Jakab, L. Vécsei (Szeged/HU)

16:30 ARCO – a promising approach for accessible and effective home-based therapy post-stroke
YE07 F. Thomas (Zurich/CH), M. Villiger (Landquart/CH), N. Wenderoth M. Schrafl-Altermatt (Zurich/CH)

16:40 Discussion and rating (please see page 7 for more information)

15:30–17:00 Cooperate society 3 I European Academy for Neurology
Room Bartok II
Chair M.-J. Hilz (Erlangen/DE)

15:30 tba
N. N.

16:00 tba
A. Federico (Siena/IT)

16:30 Brain-heart interaction
M.-J. Hilz (Erlangen/DE)

15:30–17:00 Symposium 8 I Virtual reality applications
Room Brahms I + II
Chair L. Grisoni (Lille/FR)

15:30 Designing VR rehabilitation games – What is the actual problem?
L. Grisoni (Lille/FR)
16:05  tba
   K. Müller (Meerbusch/DE)

16:40  VR-based multisensory peer-peer therapy fosters learning and retention in nonfluent Aphasia
   K. Grechuta, B. Rubio Ballester (Barcelona/ES), R. Espín Munné
   B. Molina Hervás (Tarragona/ES), B. Mohr, F. Pulvermüller (Berlin/DE)
   R. San Segundo (Tarragona/ES), P. Verschure (Barcelona/ES)

15:30–17:00  Cooperate society 4  |  World Stroke Organisation
     Room  Lehár II + III
     Chair  N. Bornstein (Tel Aviv-Yafo/IL)

     Post stroke complications – depression and dementia
     N. Bornstein (Tel Aviv-Yafo/IL)

     Brain recovery from molecule to connectome
     D. Mureșanu (Cluj-Napoca/RO)

     tba
     L. Csiba (Debrecen/HU)

17:15–18:00  Plenary lecture 2
     Room  Pátria Hall
     Chair  L. Csiba (Debrecen/HU)

     Responders and non-responders in cognitive rehabilitation
     S. Clarke (Lausanne/CH)
### Ask me! Interactive experts session 1
#### Nerve and neuromuscular problems

**Room:** Brahms I + II  
**Experts:** R. Schmidhammer (Vienna/AT), M. de Visser (Amsterdam/NL), W. Grisold (Vienna/AT)

Participants – especially youngsters – will be given the chance to get in direct contact with experts in the fields of nerve and neuromuscular problems as well as new technologies. All questions and discussions are welcome.

### Ask me! Interactive experts session 2
#### New technologies

**Room:** Liszt II + III  
**Experts:** L. Grisoni (Lille/FR), V. Hömberg (Bad Wimpfen/DE), C. Pistarini (Nervi/IT), W. Feng (Charleston, SC/US)

### Plenary lecture 3

**Room:** Pátria Hall  
**Chair:** D. Mureșanu (Cluj-Napoca/RO)

**10:00**  
Brain/neural-machine interfaces for restoration of motor function and beyond  
S. R. Soekadar (Berlin/DE)

### Symposium 9  
#### Music and semantics

**Room:** Pátria Hall  
**Chair:** M. Thaut (Toronto/CA)

**11:00**  
Music as a connecting link in neurorehabilitation  
H. Binder (Vienna/AT)

**11:40**  
Music as a language  
M. Thaut (Toronto/CA)

**12:20**  
Motor cortex modulation by rhythmic auditory stimulation S9.1  
S. Golaszewski, J. Schmidt, K. Schwenker, V. Frey, J. Bergmann (Salzburg/AT), M. Christova (Graz/AT), A. Kunz (Salzburg/AT), E. Gallasch (Graz/AT), R. Nardone (Salzburg/AT, Merano/IT), E. Trinka (Salzburg/AT)
11:00–12:30  Cooperate society 5  I  World Federation of Neurology
Room  Bartok II
Chair  W. Grisold (Vienna/AT)

11:00  New therapies in neuromuscular disease
M. de Visser (Amsterdam/NL)

11:30  Nerve regeneration and neuroplasticity – lessons learnt from brachial plexus surgery
R. Schmidhammer (Vienna/AT)

12:00  Neuropathic pain – frequency, diagnosis and treatment
W. Grisold (Vienna/AT)

11:00–12:30  Cooperate society 6  I  Presentations of Szeged Neurorehabilitation Group
Room  Lehár II + III
Chair  L. Vécsei (Szeged/HU)

11:00  The importance of brain plasticity in stroke rehabilitation
CS01  K. Jakab, G. Gárdián, L. Vécsei (Szeged/HU)

11:15  Complicated rehabilitation of a patient with hypertrophic olivary degeneration (case presentation)
CS02  G. Gárdián, M. Elmer (Szeged/HU), N. Kovács, I. Balás (Pécs/HU)
B. Laczó, M. Dimovics, T. Szőcs, B. Gregus, O. Sápi, O. Kis, K. Jakab
L. Vécsei (Szeged/HU)

11:30  The use of transcranial direct current stimulation in stroke rehabilitation – effects on mood and cognition
CS03  N. Szépfalusi, V. L. Németh, C. Kazinczi, A. Holczer, T. Vékony
G. Csifcsák, K. Jakab, L. Vécsei, A. Musta (Szeged/HU)

CS04  V. L. Németh, N. Szépfalusi, K. Jakab, L. Vécsei, A. Musta (Szeged/HU)

12:00  Intake difficulties of macro- and micronutrients and related pathobiochemical disturbances in stroke associated dysphagia
CS05  L. Vécsei (Szeged/HU)
11:00–12:30  Symposium 10  I  Community based rehabilitation in middle income countries
Room Brahms I + II
Chair A. Winkler (Vienna/AT)

11:00  AUREUS project Usbekistan
Y. N. Madjidova (Tashkent/UZ)

11:30  AVANT – Stroke-Rehabilitation education program in Vietnam
A. Winkler (Vienna/AT)

12:00  ACURE project Ukraine
V. Golyk (Kyiv/UA)

11:00–12:30  Oral presentations 3  I  Stroke I
Room Liszt II + III
Chair N. Bornstein (Tel Aviv-Yafo/IL)

11:00  Mirror therapy to improve the motor function of the upper extremity of stroke patients
D. Bauer-Öppinger (Haslach an der Mühl/AT)

11:09  The effectiveness of various methods for the functional development of paretic hands after stroke
A. Pádár, S. Nagy, É. A. Szabados, Á. Bajusz-Leny Z. Jenei (Debrecen/HU)

11:18  Paired associative stimulation delivered by pairing movement-related cortical potentials with peripheral electrical stimulation improves voluntary activation in people with stroke

11:27  Pelvis biomechanics in post-stroke patients measured by instrumental gait analysis
M. Vaz (Viseu/PT), A. Araújo, P. Lopes (Porto/PT)
J. Capelo (Alcabideche/PT), A. Canelas (Leiria/PT), R. Silva J. Jacinto (Alcabideche/PT)
11:36 The effect of continuous passive movement for paretic ankle-foot and brain activity in early stroke rehabilitation
C. Vér, M. Emri, T. Spisák, E. Berényi, K. Kovács, P. Katona
L. Balkay, L. Menyhárt, L. Kardos, L. Csiba (Debrecen/HU)

11:45 Instrumental assessment of the impacts of assistive walking devices on gait of hemiplegic post stroke spastic patients
J. Capelo, R. Silva (Alcabideche/PT), P. Lopes (Porto/PT)
A. Canelas (Leiria/PT), A. Araújo (Coimbra/PT), M. Vaz (Viseu/PT)
J. Jacinto (Alcabideche/PT)

11:54 Effect of different types of inputs combined with contralateral force irradiation on hand function and strength in Hemiplegia: a pilot study
H. Denizoglu Kulli, E. Durgut, K. Alpay, A. Zengin Alpozgen
H. N. Gurses (Istanbul/TR)

12:03 Is isokinetic training useful in stroke patients?
I. M. Borda, L. Irsay, I. Onac, V. Ciortea, R. Ungur (Cluj-Napoca/RO)

12:12 Influence of etiology, hemiparetic side and chronicity on spatiotemporal gait parameters in post-stroke patients
P. Lopes (Porto/PT), J. Capelo, R. Silva, J. Jacinto (Alcabideche/PT)
A. Canelas (Leiria/PT), M. Vaz (Viseu/PT), A. Araújo (Coimbra/PT)

12:21 Morbus fabry and morbus gaucher – which incidence rates can be expected in the setting of a neurorehabilitation clinic – results of a genetic screening study
A. Harsanyi, S. Schützenberger-Sitta, B. Keuschneg-Wagenmann I. Zelenka, A. Winkler (Bad Pirawarth/AT)

12:30–14:30 Lunch break

13:00–14:15 ePoster sessions 4–6
(please refer to page 52)

13:00–14:00 Industry supported symposium
(please refer to page 70)
14:30–16:00  Symposium 11  I  WFNR clinical practice recommendations: motor rehabilitation post-stroke
Room Pátria Hall
Chair T. Platz (Greifswald/DE)

14:30  Recent reports on using Botulinum Toxin in management of post-stroke spasticity
J. Wissel (Berlin/DE)

14:45  Effect of Intrathecal baclofen on pain and quality of life in post-stroke spasticity
L. Saltuari (Hochzirl/AT)

15:00  Can extracorporeal shock therapy be used for spasticity in patients after stroke?
J. Opara (Katowice/PL)

15:15  Introduction on WFNR recommendations – overview and methods
T. Platz (Greifswald/DE)

15:30  Balance and mobility
D. Pérennou (Grenoble/FR)

14:30–16:00  Round table 1  I  Advancing technologies in neurorehabilitation
Room Bartok II
Chair V. Hömberg (Bad Wimpfen/DE)

P. Tonin (Crotone/IT), S. R. Soekadar (Berlin/DE)
V. Hömberg (Bad Wimpfen/DE)
14:30–16:00  |  Welcome symposium for Bulgarian Society for NeuroRehabilitation – Prospects of neurorehabilitation
Room Lehár II + III
Chair D. Maslarov (Sofia/BG)

14:30  |  Neurorehabilitation in Bulgaria – actual status and perspectives
D. Maslarov (Sofia/BG)

15:00  |  The role of rehabilitation in complex therapy of recurrent vertebrogenic pain
M. Karadjova (Sofia/BG)

15:30  |  Repetitive transcranial magnetic stimulation for the treatment of chronic migraine
V. Todorov (Sofia/BG)

14:30–16:00  |  Acute neurorehabilitation
Room Brahms I + II
Chairs H. Binder (Vienna/AT), A. Pincherle (Luxembourg-Kirchberg/LU)

14:30  |  Acute neurorehabilitation – a role in Neurocritical care?
B. Pfausler (Innsbruck/AT)

14:50  |  Effect of neurosensorial approach and stimulation of motor illusion on outcome of DOC patients in the very acute phase
K. Diserens (Lausanne/CH)

15:10  |  Management of delirium and post delirant states
H. Binder (Vienna/AT)

15:30  |  Bedside differential diagnosis of disturbance of consciousness
L. Csiba (Debrecen/HU)
**Oral presentations 4  |  Robots and other new technologies**

**Room**  |  Liszt II + III

**Chair**  |  C. Pistorini (Nervi/IT)

**14:30**  |  Physiological responses and perceived exertion during robot-assisted overground walking in non-ambulatory stroke survivors

**OP31**  |  N. Lefeber, E. De Keersmaecker (Brussels/BE), M. Troch, C. Lafosse (Edegem/BE), B. de Geus, E. Kerckhofs, E. Swinnen (Brussels/BE)

**14:39**  |  Flail-arm and flail-leg syndromes – survival impact with non-invasive ventilation

**OP32**  |  S. Pinto (Lisboa/PT, Umeå/SE), A. Pinto, M. de Carvalho (Lisboa/PT)

**14:48**  |  Robot-assisted gait training vs. conventional therapy in caregiver burden after stroke – a randomized study of an in-patient rehabilitation clinic

**OP33**  |  M. A. Guler, B. Erhan, E. Yilmaz Yalcinkaya (Istanbul/TR)

**14:57**  |  Cerebral oximetry is a predictor of safety and efficacy in early robot-assisted stroke rehabilitation

**OP34**  |  A. Zimin, A. Kotov-Smolensky (Moscow/RU)

**15:06**  |  Comparing the effects between condensed and distributed robotic therapy in subjects with spastic stroke post botulinum toxin injection – a randomized controlled trial

**OP35**  |  J.-W. Hung (Kaohsiung/TW), C.-Y. Wu (Taoyuan/TW)

**15:15**  |  Clinical effectiveness of a combined transcranial direct current stimulation and virtual reality-based program on chronic individuals post-stroke with persistent severe hemiparesis

**OP36**  |  R. Llorens, C. Colomer, E. Noé, J. Ferri (Valencia/ES)

**15:24**  |  Brain connectivity index to follow neurorehabilitation processes: evidence from EEG network analysis

**OP37**  |  F. Vecchio, F. Miraglia, P.M. Rossini (Rome/IT)
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<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speakers</th>
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<tr>
<td>15:42</td>
<td>Electroacupuncture as a therapeutic method in the treatment of peripheral nerve pareses</td>
<td>J. Horníček (Olomouc/CZ)</td>
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<td>15:51</td>
<td>Analysis of the balance function state under the influence of polymodal afferentation in virtual reality</td>
<td>I. Maryenko, M. Mozheiko, S. Likhachev, M. Yurchenko, N. Susha E. Ivanitsky, A. Kahanovsky (Minsk/BY)</td>
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<td>16:00–16:30</td>
<td>Coffee break</td>
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<td>16:30–18:00</td>
<td>Symposium 13</td>
<td>Rehabilitation in headache and chronic pain</td>
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<td>Chair</td>
<td>W. Grisold (Vienna/AT)</td>
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<td>16:30</td>
<td>Recommendations for pain treatment in rehabilitation</td>
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<td>17:00</td>
<td>New concepts for migraine treatment</td>
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<td>16:30–18:00</td>
<td>Round table 2</td>
<td>Educational approaches throughout Europe</td>
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<td>G. Sandrini (Pavia/IT), T. Platz (Greifswald/DE) H. Binder (Vienna/AT), L. Saltuari (Hochzirl/AT) K. Diserens (Lausanne/CH)</td>
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16:30–18:00 Symposium 14  I  Parkinson’s disease
Room Brahms I + II
Chair  N. Smania (Gravedona/IT)

16:30 Robotic-assisted training in Parkinson’s disease
N. Smania (Gravedona/IT)

17:05 Brain reorganisation in PDG
D. Mureșanu (Cluj-Napoca/RO)

17:40 Evidences on motor impairments, non-motor symptoms and
S15.1 compliance of tele-rehabilitation in patients with Parkinson’s
disease
C. Pistarini (Nervi/IT), G. Maggioni (Veruno/DE)

16:30–18:00 Symposium 15  I  The face of early neurorehabilitation in
Germany – changes over time
Room Lehár II + III
Chair  C.-W. Wallesch (Elzach/DE)

16:30 Neurological early rehabilitation in the DRG-system – making
patients fit for rehab
C.-W. Wallesch (Elzach/DE)

17:00 The German phase model and the consequences of changing
diagnoses and severity in the patient spectrum
F. Müller (Bad Aibling/DE)

17:30 Outcome measurement over the years – What changes do we see?
B. Eifert (Neresheim/DE)
**16:30–18:00 Oral presentations 5 | Stroke II / Cognition**

**Room** Líszt II + III  
**Chair** N. Bornstein (Tel Aviv-Yafo/IL)

**16:30** Avant: stroke-rehabilitation program in Vietnam – report of progress after 3 years of implementation  
A. Winkler, I. Schandl, M. Galoppi (Bad Pirawarth/AT)  
L. H. Anh (Hanoi/VN)

**16:40** Applying the dual-task in the rehabilitation of central nervous diseases  
J. Málly, T. W. Stone, E. Dinya (Sopron/HU)

**16:50** Cortical connectivity and memory performance in cognitive decline through EEG data  
F. Miraglia, F. Vecchio, P. M. Rossini (Rome/IT)

**17:00** Distribution of attention while observing ecologically valid environment  
K. Vigasina, M. Kaverina, O. Krotkova, G. Danilov (Moscow/RU)

**17:10** Neuropsychiatric and cognitive disorder in cerebellar stroke patients: the cerebellar cognitive affective syndrome (CCAS)  
F. De Salvo, A. Sfaldaroli, C. Grelli, G. Lucchesi, M. Caserio M. C. Peccini, P. Milia (Umbertide, Perugia/IT)

**17:20** Sensory stimulation in acquired brain injury – a review of intervention programs  
J. Pinto, A. R. Dores, B. Peixoto, A. Geraldo, F. Barbosa (Porto/PT)

**17:30** Extraction of clinically relevant kinematic parameters from IMU-based motion capture system in stroke patients  
S. Kim (Seoul/KR)

**17:40** IMPULSE Trial – study protocol, rationale and design of a prospective, multi-center, randomized, double-blind study on the stimulation of brain plasticity to improve upper limb recovery after stroke  
A. Winkler (Bad Pirawarth/AT), E. Doppler (Unterach/AT)

**17:50** Electroacupuncture as a therapeutic method in the treatment of central nerve pareses  
P. Olšák, J. Horníček, P. Kolář, B. Kolářová (Olomouc/CZ)
GERMAN SOCIETY OF NEUROREHABILITATION

26th Annual Meeting

2019 LEIPZIG | 5–7 December

Learning, motivation and emotion

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09:00–09:45   Plenary lecture 4
Room Bartok II
Chair V. Hömberg (Bad Wimpfen/DE), D. Mureșanu (Cluj-Napoca/RO)
Epilepsy problems in neurorehabilitation
A. Guekht (Moscow/RU)

10:00–11:30   SIG Meeting I Early rehabilitation
Room Bartok II
Chairs K. Diserens (Lausanne/CH), H. Binder (Vienna/AT)

10:00   Bed rest and medical treatment of vasospasm versus early mobilisation – a controversy
N. Ben Hamouda (Lausanne/CH)

10:30   Results of early electromyographic evaluation of the ICU-acquired weakness in septic shock patients – neurophysiological observational study of epidemiology of critical care illness – results and solutions
K. Diserens (Lausanne/CH)

11:00   Erigo versus VEMO
F. Müller (Bad Aibling/DE)

10:00–11:30   Cooperate society 8 I Romanian Society for NeuroRehabilitation
Room Lehár II + III
Chairs D. Mureșanu (Cluj-Napoca/RO), N.N.

10:00   Relationships between alcohol consumption and traumatic spinal cord injury
N.N.

10:30   tDCS-Transcranial direct current stimulation in neuro-rehabilitation of post stroke patients with depression or Aphasia
E. Mustafa, M. Berteanu (Bucharest/RO)

11:00   tba
I. Stanescu (Bucharest/RO)
10:00–11:30 Symposium 16  I  Spinal cord injury
Room  Brahms I + II
Chair  H. Cerrel Bazo (Treviso/IT)

10:00
Attempts of neurological recovery and functional restoration after spinal cord injury by external afferent stimulation
H. Cerrel Bazo (Treviso/IT)

10:23
Dynamic electrical spinal stimulation – a novel tool to neuromodulate spinal networks
G. Taccola (Trieste/IT)

10:46
Transcutaneous spinal cord stimulation – a neuromodulation approach to attenuate lower extremity spasticity and augment locomotor function
U. Hofstötter (Vienna/AT)

11:09
Epidural spinal cord stimulation for spasticity
B. Freundl (Vienna/AT)

10:00–11:30 Best of oral presentations 1
Room  Liszt II + III
Chair  L. Csiba (Debrecen/HU)

10:00
The influence of a self-regulated exercise training in people with multiple sclerosis

10:20
Effects of high frequency repetitive transcranial magnetic stimulation on cognitive functions, behavioral status, quality of life and functional brain connectivity in Alzheimer’s disease
M. Budak, Z. Bayraktaroglu, L. Hanoglu (Istanbul/TR)

10:40
Is dorsiflexor muscle activation enough to ensure plantigrade or heel-first initial contact in post-stroke gait?
A. Canelas (Leiria/PT), R. Silva, J. Capelo (Alcabideche/PT)
A. Araújo (Coimbra/PT), M. Vaz (Viseu/PT), P. Lopes (Porto/PT)
J. Jacinto (Alcabideche/PT)
11:00  Combining tDCS and computerized mirror therapy in upper limb rehabilitation in stroke patients – a feasibility study
P. Giraux, J. Touly, D. Rimaud (Saint-Etienne/FR)

11:30–12:00  Coffee break

12:00–13:30  Symposium 17  I  Connectomes – What does it mean?
Room  Bartok II
Chair  D. Mureșanu (Cluj-Napoca/RO)

12:00  Introduction and state of the art
D. Mureșanu (Cluj-Napoca/RO)

12:30  Vibro-tactile P300 brain-computer interface as a mean to evaluate command following skills and communication in patients with unresponsive wakefulness syndrome
F. Fernandes, W. Cho (Schiedlberg/AT), R. Xu (Graz/AT), C. Guger G. Edlinger (Schiedlberg, Graz/AT), R. Spataro (Palermo/IT)

12:50  Rehabilitation of post stroke patients with and without new onset epileptic seizures, analysis of outcome in 16 neurorehabilitation clinics
I. Chmielewska, B. Simon (Bad Liebenstein/DE)

13:10  Brain connectivity and learning processes in a cognitive-motor task in neurodegeneration – evidence from EEG network analysis
F. Vecchio, F. Miraglia, P. M. Rossini (Rome/IT)

12:00–13:30  Symposium 18  I  Neglect – state of art treatment
Room  Lehár II + III
Chair  S. Clarke (Lausanne/CH)

12:00  Introduction and state of art
S. Clarke (Lausanne/CH)

12:35  tba
G. Rode (Lyon/FR)
13:10 Is post-stroke lateropulsion a kind of graviceptive neglect?
S18.1 S. Dai, C. Piscicelli (Echirolles, Grenoble/FR)
C. Lemaire (Grenoble, Echirolles/FR), E. Clarac, P. Davoine
A. Chrispin (Echirolles/FR), M. Baciu (Echirolles, Grenoble/FR)
M. Hommel (Grenoble/FR), D. Pérennou (Grenoble, Echirolles/FR)

12:00–13:30 Symposium 19 I Tele-Rehabilitation and brain computer
interfaces – state of the art
Room Brahms I + II
Chair P. Tonin (Crotone/IT)

12:00 State of art
P. Tonin (Crotone/IT)

12:45 Brain-computer interface training for patients with severe upper
S19.1 limb paresis in the subacute phase after stroke – study protocol
for a pilot RCT
I. Brunner, H. Pallesen, J. Feldbæk Nielsen (Hammel/DK)

13:07 Brain-computer interfaces as a tool for upper extremity motor
S19.2 rehabilitation for chronic patients suffering from stroke
F. Fernandes, W. Cho (Schiedlberg/AT), R. Xu (Graz/AT), C. Guger
G. Edlinger (Schiedlberg, Graz/AT)

12:00–13:30 Best of oral presentations 2
Room Liszt II + III
Chair L. Vécsei (Szeged/HU)

12:00 Real-time dexterous fine motor control of an advanced
BP06 prosthetic arm using regenerative peripheral nerve signals
T. Kung, P. Cederna, C. Chestek, S. Kemp (Ann Arbor, MI/US)
12:20 Intravenous amantadine sulfate (PK-Merz) decreases delta and increases alpha power in patients with disorders of consciousness: a preliminary EEG study
T. Mastropasqua (Rovereto/IT), V. Versace (Sterzing, Bolzano/IT)
S. Campostrini (Bolzano, Sterzing/IT), E. Pucks-Faes (Zirl/AT)
M. Turatto (Rovereto/IT), R. Nardone (Salzburg/AT, Merano/IT)
L. Saltuari (Bolzano/IT; Zirl/AT), L. Sebastianelli (Bolzano, Sterzing/IT)

12:40 Influence of the maximum flexion and extension of the hip, on spatio-temporal parameters in post stroke patients, as measured by instrumented gait analysis
R. Silva (Alcabideche/PT), A. Canelas (Leiria/PT)
J. Capelo (Alcabideche/PT), M. Vaz (Viseu/PT), P. Lopes (Porto/PT)
A. Araújo (Coimbra/PT), J. Jacinto (Alcabideche/PT)

13:00 Ipsilateral motor impairment in post-stroke patients and the specificities of the cerebral hemispheres
G. Azevêdo, T. Pacheco, M. C. Silvestre, Ê. Cacho
R. Cacho (Natal/BR)

13:45–14:30 Closing lecture 5
Room Bartok II
Chair V. Hömberg (Bad Wimpfen/DE)
13:45 Brain health, the ultimate wealth
V. Hachinski (London/CA)

14:30–15:00 Farewell and award ceremony
Room Bartok II
Farewell words
D. Mureșanu (Cluj-Napoca/RO), L. Vécsei (Szeged/HU)

Invitation to the World Congress for NeuroRehabilitation 2020 in Lyon
D. Pérennou (Grenoble, Echirolles/FR), G. Rode (Lyon/FR)
ePoster session 1
Terminal  ePoster terminal 1
Chair     H. Binder (Vienna/AT)

P001 Training executive functions in a novel group approach for ADHD adolescent students
L. Pavlou, M. Kambanaros (Limassol/CY)

P002 Sexual dysfunction assessment in persons with neurological disabilities
M. Mariappan (Stoke-on-Trent/GB)

P004 Quality of life after stroke – development and preliminary psychometric properties of the polish version of the stroke impact scale (sis 3.0)
J. Żyłka, U. Lach (Konstancin-Jeziorna/PL)

P005 Experienced complaints, activity limitations, and loss of motor capacities in patients with pure Hereditary Spastic Paraplegia: a web-based survey in the Netherlands
B. van Lith, L. van den Bemd, H. Kerstens, R. Nijhuis-van der Sanden
B. van de Warrenburg, V. Weerdesteyn (Nijmegen/NL)
R. Smeets (Maastricht/NL), A. Geurts (Nijmegen/NL)

P006 Motor-cognitive dual-task training for fatigue in multiple sclerosis
F. Estrada Daniele, D. Pacifico, F. Zucchetti, L. Scarabel P. Rossi (Brissago/CH)

P007 Outcomes from the broadgreen phoenix unit for patients with functional neurological disorder
H. Millward, C. Shippen, H. Osman (Liverpool/GB)

P008 Patients with functional gait disorder in four-week inpatient rehabilitation program
T. Gueye, M. Dedkova (Prague/CZ)

P009 Congenital insensitivity to pain – learning to live in a different reality
S. Pinto (Umeå/SE, Lisboa/PT, Umeå/SE), M. de Carvalho (Lisboa/PT)
H. Lindsten (Umeå/SE)
P010 Laser-Ankle bracelet – a new mobile visual cue to improve walking performance in Parkinson’s disease
P. Ruthiraphong, K. Srisil, C. Ratanasutiranont (Bangkok/TH)

P011 Theory of mind task battery (TOM) for post-stroke patients – intra and inter-observer concordance study
N. Pereira, M. C. Silvestre, T. Pacheco, E. Cacho
R. Cacho (Santa Cruz/BR)

P012 Preliminary results from a holistic neurorehabilitation program on ABI patients – can the rehabilitation outcomes be predicted by demographic characteristics?
A. Geraldo, A. R. Dores (Porto/PT), A. Castro-Caldas (Lisbon/PT)
F. Barbosa (Porto/PT)

P013 Late effects of the cerebellar tumor for oculomotor and visual mental abilities
M. Shurupova, A. Deviaterikova, A. Latanov, A. Karelin
V. Kasatkin (Moscow/RU)

P014 Prophylaxis and therapy of pes equinus in immobile patients in the intensive care unit – What is state of the art?
J. Bräunig (Münster/DE)

P015 The role of REM sleep behavior disorder (RBD) and insomnia in Parkinson’s disease population – correlation with motor and non-motor symptoms
C. Pistorini (Nervi/IT), G. Maggioni (Veruno/DE)

ePoster session 2
Terminal ePoster terminal 2
Chair W. Feng (Charleston, SC/US)

P016 Ambulation after stroke in senegalese patients
N. S. Diagne, M. B. Madeleine Christelle Andie, O. Cisse
N. Moustapha, D. Amadou Gallo (Dakar/SN)
P017  Sequential and propaedeutic aquatic training approach in patients with stroke – a randomized controlled trial
A. Curcio, G. Temperoni, M. Mangiarotti, S. Vergano, D. Morelli
M. Tramontano (Rome/IT)

P018  Combination of intrathecal autologous bone marrow concentrate, robotic movement therapy, neuromodulation and electric muscle stimulations causes partial motor recovery and complete sensible recovery in patient with chronic spinal cord injury
J. Bodziony (Luzern/CH)

P019  "BREMBO” the Brembana Valley horse way to manage trunk rehabilitation in neurological disease
G. P. Salvi, A. Quarenghi, M. Simonini
E. Ancona (San Pellegrino Terme/IT)

P020  Correlation of motor function level and social participation with chronic stroke
E. Kim (Yeongam-gun, Jeollanam-do/KR)

P021  The effectiveness of reaching exercise to nonparetic side using lateral wedge for standing balance in acute stroke – a randomized controlled trial

P022  Impaired hand proprioception in Carpal tunnel syndrome
S. J. Watt (Bangor/GB)

P023  Characteristics of gait in stroke subjects compared to healthy subjects – systematic review
H. Santos, I. Baleia, J. Jacques, b. Graça, A. Reis (Cascais/PT)
European Stroke Research Foundation
ASIA Pacific Stroke Organisation

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/I50169
Fisetin Protects against Intracerebral Hemorrhage-Induced Neuroinflammation in Aged Mice
Chen, C.; Yao, L.; Cui, J.; Liu, B.
/I50169
Prevention Effect of Antiplatelets on Aneurysm Rupture in a Mouse Intracranial Aneurysm Model
/I50169
The Serotonin Transporter Gene Polymorphisms and Risk of Ischemic Stroke
Mortensen, J.K.; Kraglund, K.L.; Johnsen, S.P.; Mors, O.; Andersen, G.; Buttenschøn, H.N.

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P025 Balance effects of robot-assisted arm training in the elderly patients with subacute stroke

P026 From research to clinical practice. Applying an algorithm for prognosis of upper limb function in patients with subacute stroke
C. Lundquist (Hammel/DK)

P027 Non-invasive treatment of spasticity in patients with chronic stroke using a novel device pairing trans-spinal direct current stimulation with peripheral nerve stimulation
Z. Ahmed (Staten Island, NY/US), N. Yaghoubi (Boston, MA/US)
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P028 The role of sensory systems in maintaining balance in patients with multiple sclerosis in the period of clinical compensation
M. Mozheiko, I. Maryenko (Minsk/BY), S. Likhachev (Minsk/BY)

P029 Improvement in 10 meter walk test after botulinum toxin type a treatment in chronic stroke survivors – a retrospective descriptive study
C. Cid-Bassaletti, M. Crespo-Cobo, M. Gil-Hernández, Z. Ji (Madrid/ES)

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Terminal ePoster terminal 3
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P031  Two new claimers in Japan
R. Kayamori, F. Hinoshita (Tokyo/JP)

P032  Behavioural deficits in stroke rehabilitation
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P033  Hierarchical attention training (HAT) – computerized cognitive training program for frontal lobe cerebral vascular accident (CVA)
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M. C. Peccini, M. Caserio, P. Milia (Umbertide, Perugia/IT)

P034  The relationship between saccade and gait performance in children survived after cerebellar tumor
A. Aizenshtein, M. Shurupova, D. Skvortsov, A. Karelin
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P035  The prevalence of pusher syndrome after a hemisphere stroke: a systematical review and meta-analysis
S. Dai, C. Piscicelli, D. Pérennou (Grenoble, Echirolles/FR)

P036  Effects of visual motor illusion on resting-state functional connectivity – a preliminary study
K. Shibata (Tokyo/JP)

P037  Onabotulinumtoxin A reduces temporal pain processing at spinal level in patients with lower limb spasticity
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P039  Avant-program – a method for evaluating the implementation, effectiveness and patient/trainer related outcomes of a structured basic stroke-rehabilitation program in Vietnam after 3 years
A. Winkler (Bad Pirawarth/AT), L. H. Anh (Hanoi/VN)
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P040  Rehabilitation outcome and multi-drug resistant organisms in severe acquired brain injured patients – a retrospective analysis
G. B. Castellani, M. Uneddu, M. Battilana (Imola/IT)

P041  Usage of assessment tools in neuro-rehabilitation by Austrian occupational therapists
M. Gschladt, K. Stadler (Linz/AT)

P042  Trunk training after stroke to improve abilities needed for daily life
L. Eckl (Linz/AT)
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27th Annual Meeting of the German Society of NeuroRehabilitation

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ePoster session 4

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Chair: W. Feng (Charleston, SC/US)

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P044 Rehabilitation of brachial plexus injuries using a haptic upper limb robot assisted therapy device
P. Milia, M. C. Peccini, F. De Salvo, M. Caseiro, C. Rossi, L. Pigliapoco F. Bevilacqua, C. Grelli, A. Sfaldaroli (Umbertide, Perugia/IT)
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P045 Intra and inter-rater reliability of Valedo System to measure trunk range of movement in healthy and chronic stroke participants during the streamlined Wolf Motor function test
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P047 Kjellin syndrome, a rare form of Hereditary Spastic Paraplegia type 11: What to offer to the patients?
S. Pinto (Lisboa/PT, Umeå/SE), J. Jakobsson, F. Pedrosa-Domellöf O. Al-Zubaidi, H. Lindsten (Umeå/SE)
P049 Evaluating the comprehensibility of the Arm-Hand-Activity-Scale (AHAS-German version) as part of establishing psychometric quality criteria
M. Berger (Hermagor, Krems/AT), M. Freimüller
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P050 The Vojta Therapy in the overall concept of the treatment of spinal cord injury
B. Maurer-Burkhard (Heidelberg/DE)

P051 New approaches in spasticity – a comparative study
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P052 Dual-transcranial direct current stimulation – before or during physical therapy? Effect on lower limb performance in sub-acute stroke
W. Klomjai, B. Aneksan (Nakhon Pathom/TH)

P053 Prevalence of postural patterns of upper extremity and its impact on quality of life in post stroke patients in Chile
A. Doussoulin (Temuco/CL), J. Bacco (Temuco, Viña del Mar/CL)
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P055 Leveraging wearable sensor technology and taiko for rehabilitation and chronic pain management
L. Kassovic (San Francisco, CA/US)

P056 The first patient treated with a triple combination-therapy of task oriented training, anodal tDCS and Cerebrolysin® therapy after recurrent ischemic stroke – a case presentation
A. Winkler (Bad Pirawarth/AT)
ePoster session 5
Terminal ePoster terminal 2
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P057 Preserving pulmonary function and functional capacity in children undergoing abdominal surgery – a two group pretest posttest, randomized open label trial
N. Sharma, A. J. Samuel (Ambala/IN)

P059 The Aphasia Communication Team (TACT) – the Cypriot experience
M. Charalambous, M. Kambanaros (Limassol/CY)

P060 A novel wearable system for detecting and monitoring freezing of gait in Parkinson’s disease
A. Marcante (Venezia/IT), G. Gentile, R. Di Marco (Padova/IT)
C. Pellicano (Rome/IT), D. Gatsios, S. Konitsiotis (Ioannina/GR)
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P061 Virtual reality helpful in motor and cognition in corticobasal degeneration – a case report PET study
F. Hajebrahimi, T. Cakir, L. Hanoglu (Istanbul/TR)

P062 Measuring the level of participation for robot-assisted gait rehabilitation using a brain computer interface
G. Gritsch (Vienna/AT), C. Hepp (Niklasdorf/AT)
A. Heilinger (Schiedlberg/AT), H. Perko, T. Kluge (Vienna/AT)

P063 Single case study – low threshold electrical stimulation (LTES) using the Mollii suit as treatment modality for severe ataxia in an adult with multiple sclerosis
S. Marsden (Leeds/GB)

P064 RoboStim – upper limb repetitive sensory stimulation and robot therapy post stroke. Interim analysis of a pilot study
M. Egger (Bad Aibling/DE), J. Bergmann (Bad Aibling, Munich/DE)
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P065 A protocol for joint stiffness assessment using a rehabilitation robot
A. Poświata, A. Roksela (Gliwice/PL), M. Kłyk (Katowice/PL)
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P066 The possibility of using biofeedback in the correction of balance disorders and vestibular dysfunction in migraine
I. Maryenko, M. Mozheiko, S. Likhachev (Minsk/BY)

P067 Dysfunction assessment of upper limb function by clinical scales and accelerometer in people with multiple sclerosis
K. Řasová, P. Kotíková, I. Štětkářová, J. Zeman, J. Havlík (Prague/CZ)

P069 Management of urinary disorders in myelitis and spinal cord compression
N. S. Diagne, W. Laurence, O. Cisse, N. Moustapha, A. G. Diop (Dakar/SN)

P070 Immediate effect of kinesthetic illusion induced by movie of ankle dorsiflexion with increased exercise intensity for sit-to-stand movement
J. Tanabe (Kurashiki-city, Tokyo/JP), K. Amimoto (Tokyo/JP)
T. Nagahata, Y. Hashimoto (Kurashiki-city/JP)

P071 Pharyngeal width (JOSCYL width) over time as an indicator of dysphagia in stroke patients
W.-K. Yoo, S. H. Ohn (Anyang/KR)
P072  Comparison of changes in swallowing function between nutritional feeding methods in dysphagia patients with difficulty in oral intake
M. Morishita (Takahashi/JP), J. Sota, M. Kobayashi (Niimi/JP)

P073  Secondary low back pain in neurological diseases and disorders
W. Schupp (Erlangen, Herzogenaurach/DE)

P075  ICF in assessing the condition of patients with multiple cerebral aneurysms after endovascular treatment
N. Ivanova, A. Oleynik, E. Oleynik, A. Ivanov (St. Petersburg/RU)

P076  Autonomic dysfunction in the early rehabilitative phase after traumatic brain injury – reversal with intrathecal Baclofen therapy and long-term outcome improvement, a case study
A. Andrykiewicz, C. Rinaldo, P. Jaszcuk
M. Hund-Georgiadis (Basel/CH)

P077  Effects of early goal directed physiotherapy in neurological patients on the intensive care unit
J. Bräunig (Münster/DE)

P078  Auditory-Based minimally invasive neglect therapy – a blinded and controlled pilot study in early-acute patients with left-sided spatial neglect
N. Schenke, H. Hildebrandt (Bremen, Oldenburg/DE)
C. Thiel (Oldenburg/DE)

P079  Experiencing the rehabilitation from a different perspective – the perspective of patients with SCI
L. Váraljai, A. Tóth-Kora, H. Horváth, Z. Nánay, P. Cserháti (Budapest/HU)

P080  Influence of posture on blink reflex prepulse inhibition induced by somatosensory inputs from upper and lower limbs
V. Versace, S. Campostrini, L. Sebastianelli (Bolzano, Sterzing/IT)
L. Saltuari (Bolzano/IT; Zirl/AT), J. Valls-Solé (Barcelona/ES)
M. Kofler (Zirl/AT)
The Journal of Rehabilitation Medicine launches a new journal: Journal of Rehabilitation Medicine – Clinical Communications

In January 2018 the Journal of Rehabilitation Medicine (JRM) has launched a new journal: Journal of Rehabilitation Medicine – Clinical Communications (JRM–CC).

Do we need a new journal?
There are currently more than 60 journals listed in the IF list of ISI Web of Knowledge. At first sight this seems more than enough. However, these journals mostly publish papers that report the results of research. These research papers are written by professional researchers and read by other researchers active in the same field. For clinicians these papers are difficult to interpret and to estimate the value for their daily clinical work. Therefore the Editors-in-Chief of JRM have considered that there is a need for a platform that allows clinicians to publish papers with a more clinical background. We are convinced that many interesting clinical studies, observations, experiences, opinions and discussions currently are not, or not sufficiently, communicated in journals. JRM–CC does not intend to compete with existing scientific journals, a high impact factor is not the ultimate aim.

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JRM–CC will be a forum for a broad range of interesting clinical papers including case studies, case series, pilot studies, educational papers, personal opinions, technical papers, short reports, PhD-thesis summaries, position papers, book reviews. etc. The main criterion for considering a submission will be the relevance for clinical practice in Rehabilitation Medicine.

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PS01  Stimulation of the oromotor system in children with a detecitve swallowing disorder at an early age  
A. Fabianova (Piešťany, Bratislava/SK)

PS02  Pathologies in the ultrasound examination of the shoulder in patients after stroke – preliminary results  
M. Cisowska- Adamiak, M. Mackiewicz- Milewska, K. Sakwińska  
W. Hagner (Bydgoszcz/PL)

PS03  Thromboembolic and hemorrhagic complications in the phase of rehabilitation in a patient after spinal cord injury – a case report  
M. Mackiewicz- Milewska, M. Cisowska- Adamiak, K. Sakwińska  
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PS04  Caregiver burden and strain of primary caregivers of Turkish patients with Aphasia  
İ. Maviş, M. Savaş (Istanbul/TR), F. S. Karali  
G. Alev-Savtak (Istanbul, Eskişehir/TR)

PS05  Intensive short-term physiotherapy for the improvement of gait and balance in people with chronic stroke – case series  
H. Santos (Cascais/PT)

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PS07  The effects of community based group exercise program in frail older females – 24 weeks prospective study  

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PS12 Prematurity predicts the co-occurrence of cerebral palsy and seizures in a representative group of population. Racial variances co-exist
K. Deepika (Greenville, SC/US)

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Y. Tasci (Kayseri/TR)

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H. J. Kim, J. W. Kim (Seoul/KR)

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P. Ortelli, D. Ferrazzoli, G. Palamara, E. Piacentini, M. Zarucchi A. Giobbia (Gravedona ed Uniti/IT), R. Maestri (Montescano/IT)
M. Canesi (Gravedona ed Uniti/IT)

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G. Amorim Samora, R. Sant’Ana
L. Fuscaldi Teixeira-Salmela (Belo Horizonte/BR)

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12:15–13:15  Lunch symposium:  
**HOCOMA AG**  
Intelligent use of advanced rehabilitation technology  
Room Bartok II  
Chair N.N.  
V. Hömberg (Bad Wimpfen/DE), R. Llorens (Valencia/ES)  
T. Reed (London/GB), M. Spiess (Volketswil/CH)

12:15–13:15  Lunch symposium:  
**Sintetica S. A.**  
Intrathecal Baclofen in spasticity – evaluation, treatment and troubleshooting  
Room Liszt II + III  
L. Saltuari (Hochzirl/AT)

INDUSTRY SUPPORTED SYMPOSIUM I FRIDAY, 11 OCTOBER

12:15–13:15  Lunch symposium:  
**EVER Neuro Pharma GmbH**  
Evidence based neurorecovery after stroke  
Room Bartok II  
Chair W.-D. Heiss (Cologne/DE)  
The clinical development of cerebrolysin in acute and subacute stroke  
D. Mureșanu (Cluj-Napoca/RO)  
After CARS – new insights and new evidence  
V. Hömberg (Bad Wimpfen/DE)  
New hope for chronic stroke patients – the IMPULSE study  
A. Winkler (Vienna/AT)
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Floor Plan:
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