President
Ronald H. M. A. Bartels (Nijmegen/NL)

Treasurer and president elect
Björn Zoega (Stockholm/SE)

Secretary
Carmen Vleggeert-Lankamp (Leiden/NL)

Alan Leonard (London/GB)

Mario Boni award liaison officer
Claes Olerud (Uppsala/SE)

Programme committee
Heiko Koller (Fürth/DE)

Yohan Robinson (Uppsala/SE)

Scientific research and education committee
Andrés Combalia (Barcelona/ES)

Petr Suchomel (Prague/CZ)

Philippe Bancel (Paris/FR)

Congress president CSRS-ES 2018
Óscar Alves (Porto/PT)

Past presidents
Jose Casamitjana (Barcelona/ES)

Bengt I. Lind (Gothenburg/SE)

Past president and trustees and bylaws committee
Andre Jackowski (Birmingham/GB)
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation and imprint</td>
<td>4</td>
</tr>
<tr>
<td>Welcome notes</td>
<td>6</td>
</tr>
<tr>
<td>Lecturers</td>
<td>10</td>
</tr>
<tr>
<td>Programme overview</td>
<td>15</td>
</tr>
<tr>
<td>Scientific programme</td>
<td></td>
</tr>
<tr>
<td>Wednesday, May 24</td>
<td>16</td>
</tr>
<tr>
<td>Thursday, May 25</td>
<td>18</td>
</tr>
<tr>
<td>Friday, May 26</td>
<td>28</td>
</tr>
<tr>
<td>Sponsors and exhibitors</td>
<td>36</td>
</tr>
<tr>
<td>Company editorials</td>
<td>38</td>
</tr>
<tr>
<td>Social and cultural programme</td>
<td>40</td>
</tr>
<tr>
<td>General information</td>
<td>41</td>
</tr>
<tr>
<td>General hints for authors and presenters</td>
<td>45</td>
</tr>
</tbody>
</table>
Organisation and imprint

Venue
Wyndham Grand
Salzburg Conference Centre
Fanny-von-Lehnert-Strasse 7
5020 Salzburg (AT)
www.wyndhamgrandsalzburg.com

Conference website
www.csrs-salzburg2017.com

Hosting society
Cervical Spine Research Society – European Section (CSRS-ES)

Congress chairs
Assoc. Prof. Dr. Heiko Koller
Chief Physician
Center for Spinal and Scoliosis Therapy
Schön Klinik Nürnberg Fürth
Fürth (DE)

Priv. Doz. Dr. Michael Mayer
Consultant
Center for Spinal and Scoliosis Therapy
Schön Klinik Nürnberg Fürth
Fürth (DE)

Congress organisation
Conventus Congressmanagement & Marketing GmbH
Nadia Al-Hamadi/ Karoline Koch
Carl-Pulfrich-Strasse 1 • 07745 Jena (DE)
Phone +49 3641 31 16-315 • Fax +49 (0)3641 31 16-243
csrs@conventus.de • www.conventus.de

Design/Layout
Layout krea.tif-studio UG (limited liability)
Print XXX
Circulation XXX
Editorial Deadline May 11, 2017
• **Calculate** alignment parameters with preoperative planning tools.

• **Correct** the anterior and posterior column with comprehensive procedural solutions from NuVasive® with the industry’s only real-time intraoperative assessment.

• **Confirm** the restoration and preservation of global alignment postoperatively.
Dear colleagues and friends,

On behalf of the Cervical Spine Research Society – Europe, we are delighted to welcome you to the 33rd annual meeting in Salzburg, Austria!

It has been a great honour to prepare for you another scientific and socially appealing meeting that will focus on news, trends and challenges in cervical spine medicine. The very highest level of research will be presented long before it will become generally published. Experts from all over the world will share their experiences, including both successes and failures, as everyone earnestly strives to improve the treatment of patients with these complex cervical spine disorders.

The CSRS-Europe is one of the leading specialist spine societies, with an excellent scientific and clinical reputation. Thrilling debates and lively ‘round table’ discussions with acknowledged cervical spine leaders, as well as presentations of the most recent scientific evidence in treating cervical spine pathologies, continue to build the foundation of our highly successful meeting. You can expect meaningful, lively discussions with new sessions for the first time that focus specifically on clinical case specific questions.

For this year’s CSRS-Europe annual meeting, the number of excellent abstracts submitted exceeded 250! We appreciate that our meeting has developed its role as an annual ‘magnet’ for researchers and clinicians form all over the world that want to improve their knowledge and understanding of cervical disorders.

Also, to acknowledge and accommodate the increasing number of excellent high quality abstracts submitted, the number of presentations at the meeting will be increased this year while the presentation times will be marginally reduced in length. The evenings will be led by outstanding guest lecturers – so make sure you don’t miss them!

The main topic of the meeting this time will be ‘cervical trauma, post-traumatic deformity, myelopathy and spinal cord injury’ – a theme which affects all physicians that treat cervical spine pathologies.
Welcome notes

Salzburg city is one of the many Austrian ‘diamonds’ and hospitality experience here will always be remembered. The social programme, our lunch symposia and multiple breaks will offer many opportunities to network with experts and friends from all over the world – so make use of this important chance to join the CSRS-Europe family at this, our 33rd annual meeting!

We thank you, our faculty and industry partners for your invaluable support in preparing an unforgettable meeting. We are delighted to welcome you to the city of the ‘sound of music’.

Heiko Koller, Assoc. Prof. Dr. 
Board Member, Local Host

Michael Mayer, Priv. Doz. Dr. med. 
Local Host
My dear guests,

It is such a great pleasure for me to welcome you to this, the 33rd annual meeting of the Cervical Spine Research Society – Europe. We trust that the main topic of the meeting, “cervical trauma, post-traumatic deformity, myelopathy and spinal cord injury“ will be of particular interest to both yourself and also for the wider audience. As diverse medical specialists, physiotherapists, residents, researchers and patients, we all regularly encounter problems related to the main topic in our daily practice and lives, so we sincerely trust that the programme developed for this, our 33rd annual meeting will be of particular interest and help to you all in dealing with these complex challenges.

The scientific content and the opportunity to meet colleagues is one of the success factors of our annual meetings. The huge efforts of our local hosts Heiko Koller and Michael Mayer in developing the programme will, no doubt, contribute to the great success of this meeting. I sincerely hope that you will enjoy both a fruitful meeting and also have a very pleasant stay in Salzburg.

Ronald H. M. A. Bartels
President of CSRS – Europe

Ronald Bartels was born on August 24, 1962 in Maastricht, the Netherlands. After completing his gymnasium he attended Medical School at the Catholic University in Nijmegen. In 1987 he graduated. After completing his military service, he became a resident in neurosurgery (Raboud University Medical Center, Nijmegen, the Netherlands). In 1996 he was board certified and started working as a staff member in the same institute and focused on spine surgery. In October 2010 he was appointed as Chairman of department of Neurosurgery of the Radboud University Medical Center, and in June 2015 as full Clinical Professor in Neurosurgery. From 2009 until 2015 he was the secretary of the CSRS-E, and since May 2016 president of the CSRS-Europe.
Cervical Spine

Our solutions

Motion Preservation

Mobi-C®
Mobile Core Cervical Disc Prosthesis

Virage®
OCT Spinal Fixation System

TM-S
Trabecular Metal™ Technology Solutions

ROI-C® and ROI-C® Ti-Coated Anterior Cervical Cages

Optio-C®
Anterior Cervical Implant

Trinica®
Anterior Cervical Plate

ZIMMER BIOMET
Your progress. Our promise.
Invited special guest lecturers

Thursday, May 25 • 17:10–17:30
Advances in the treatment of spinal cord injury: Current milestones and future visions
Michael Fehlings (Toronto/CA)

At the University of Toronto, Dr. Michael Fehlings is Vice Chair Research for the Department of Surgery, Co-Director of the Spine Program and a Professor of Neurosurgery. As Head of the Spinal Program at Toronto Western Hospital, he combines an active clinical practice in complex spinal neurosurgery with a vibrant, translationally-oriented research program. His mentorship and teaching includes clinical fellows as well as undergraduate lectures and postgraduate research supervision. His research focuses preclinically on translationally relevant models of spinal cord and brain injury, including developmental brain injury, and clinically on disorders of the spine/spinal cord. He has developed cervical and thoracic models of spinal cord injury to facilitate translational research. The lab is currently working with induced pluripotent stem cells (iPSCs) and neural stem cells (NSCs) with a focus on combinatorial therapies as the most likely way in which stem cells will ultimately be used in a clinical setting. Dr. Fehlings is currently involved in clinical trials of therapies including the sodium blocker, Riluzole, and the use of stem cells in spinal cord injury. With over 700 highly-cited publications, impacting clinical practice and research directions, he is established as a leading international expert investigating CNS repair and regeneration for brain and spinal cord injury.
Thomas Bubendorfer is one of the most successful active climber. Already at age 16 he became the youngest solo climber of hard severe rock mountain faces. He perfected his solo climbing style in hundreds of solo climbs and finally gained international fame when, at 21, he became the first climber to solo climb (this means no ropes!) the north face of the Eiger, the highest and hardest mountain face in the Alps, in the record time of less than five hours. To this day he has achieved more than 90 first rope-free solo ascents, record ascents and first ascents in the mountains of the world, the latest one in January 2015 in the Austrian Alps. Many of his climbs remain unparalleled.

While climbing remains the most important and influential activity in his life, Thomas, now 54, is not just a climber. Inspired by his grandfather, he has always sought to balance his intense physical activities - training up to 400 hours per year, and climbing 120 days per year - by training his mind. He speaks four languages and has written seven books. Presently he is working on his first book in English. He keeps studying subjects as varied as chaos science, neurobiology, brain science, philosophy and history.

An international keynote speaker since 1985, Thomas has shared his views on performance, self-responsibility, goal-setting, quality, crisis, teamwork and many more related topics with audiences of many of the leading companies in the world.

Thomas is a father of three children and travels around the world giving a maximum of 30 keynote speeches in Asia, the US and Europe. He coaches and consults business leaders in the art of „intelligent performance“ and is brand ambassador to Porsche.
Jeffrey C. Wang earned a Bachelor of Science degree in Biological Sciences at Stanford University and his M.D. degree cum laude at the University of Pittsburgh School of Medicine. He did his residency in Orthopaedic Surgery at UCLA and completed a fellowship in Spine Surgery at Case Western Reserve University. In 1997, he joined the David Geffen School of Medicine at UCLA and was named Vice Chair of the Department of Orthopaedic Surgery and was the spine fellowship director since 1997. In 2013, he was recruited to lead the building of the University of Southern California Spine Center. He is currently a Professor of Orthopaedic Surgery and Neurosurgery at the Keck Medical Center at USC. He is Co-Director of the USC Spine Center and Fellowship Director of the USC Spine Fellowship. To date, Dr. Wang has published over 300 articles, 23 book chapters, and several textbooks. Moreover, he has made over 800 presentations regionally and internationally and has been a visiting professor throughout the United States, Europe, and Asia. He has been the honored guest speaker at several international Spine, Orthopaedic, and Neurosurgery Society Meetings. He also serves on multiple editorial boards, and is the Editor-in-Chief of the Global Spine Journal. He is currently the Past Chairman of AOSpine, and on the board of directors of several major spine societies (North American Spine Society, Cervical Spine Research Society, Collaborative Spine Research Society). He is currently the President-Elect of the Cervical Spine Research Society, and the 2nd Vice President of the North American Spine Society. He continues to run a basic science research laboratory and is in full-time academic practice at the University of Southern California.
Darrel S. Brodke (Lake City, UT/US)
Current president of the CSRS – NA

Darrel S. Brodke, MD, professor and senior vice-chair in the Department of Orthopaedics at the University of Utah, has a joint appointment in the Department of Neurosurgery, and holds the Louis and Janet Peery Presidential Endowed Chair. He is the director of the Orthopaedic Spine Program and the co-director of the spine fellowship at the University of Utah. Dr. Brodke specializes in degenerative conditions, deformity, and traumatic injuries of the cervical, thoracic and lumbar spine. His primary clinical interests are cervical spine disorders and complex spine reconstruction.

Dr. Brodke received the M. D. at the University of California, San Francisco, completed an Orthopaedic residency at the University of Wisconsin, Madison, and a fellowship in Spine Surgery at the University of Washington in Seattle before joining the faculty at the University of Utah. He is a diplomate of the American Board of Orthopaedic Surgery and a member of the North American Spine Society, Cervical Spine Research Society, American Academy of Orthopaedic Surgeons, American Orthopaedic Association, Association of Bone and Joint Surgeons, and AOSpine. He is the current President of the Cervical Spine Research Society and is Chairman of AOSpine North America.

Dr. Brodke has authored 130 peer-reviewed publications, as well as 54 reviews and book chapters. He has numerous published abstracts and presentations. His current research involves general spine clinical outcomes research and the use of the PROMIS PRO measures, clinical outcomes with Proximal Junctional Failure following Adult Deformity Surgery, and in vitro biomechanical research, looking at force, motion and stiffness of spinal fusion and non-fusion constructs.
Friday, May 26 • 11:40–12:00
Presidential Lecture CSRS Asia Pacific
Kuniyoshi Abumi (Sapporo/JP)

representing Shanmuganathan Rajasekaran, current president of the CSRS – AP

Dr. Kuniyoshi Abumi graduated from the Hokkaido University School of Medicine in 1977. He has since been focusing on spine surgery for the last 35 years. His major clinical subjects have been reconstruction of the cervical spine and correction surgery of spine deformities. He is an active member of the Scoliosis Research Society since 1995, and a corresponding member of the Cervical Spine Research Society (CSRS) since 1999. He is also one of the founding members of the CSRS-Asia Pacific Section, and served as the president of the inaugural meeting of the society on April 2010 in Kobe, Japan. In addition, Dr Abumi has been working as the president of the Asia Pacific Spine Society (APSS) from 2015. He was working as a Professor in the Hokkaido University Graduate School of Medicine and in Hokkaido University Hospital until March 2013. Currently, he is the President and the Chief Director of the Sapporo Orthopaedic Hospital-Centre for Spinal Disorders in Sapporo, Japan and Professor Emeritus of Hokkaido University. His present major subject is cervical spinal reconstruction and correction of cervical deformities.

Shanmuganathan Rajasekaran (Coimbatore/IN)
Current president of the CSRS – AP

Prof. Rajasekaran is the Chairman of the Department of Orthopaedics, Trauma & Spine Surgery, Ganga Hospital, Coimbatore.

Dr Rajasekaran is the Current Chair, International Research Commission of AOSpine (2016–2019) and the President of SICOT (2016–2018). He is the President Elect of CSRS-AP and will be the president in 2018.

He has held the distinguished posts of the President of the Indian Orthopaedic Association (2012), President of the Association of Spine Surgeons of India for four years (2008–2012) and Chief National Delegate of Asia Pacific Orthopaedic Association. He was the President of International Society for the Study of Lumbar Spine, Canada (2012), a prestigious international research society. He has the rare distinction of being appointed as the Hunterian Professor for the year 2011–2012 by the Royal College of Surgeons of England.

He is the Deputy Editor of the Journal of SPINE, USA. He is also the Deputy Editor of Global Spine Journal, USA, and is on the Editorial board of European Spine Journal.
## Programme Overview

<table>
<thead>
<tr>
<th>Wednesday, May 24</th>
<th>Thursday, May 25</th>
<th>Friday, May 26</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>08:15–08:30</strong></td>
<td><strong>Welcome lecture</strong></td>
<td><strong>08:30–09:30</strong></td>
</tr>
<tr>
<td><strong>08:30–09:20</strong></td>
<td>Lecture session 1 &amp; Mario Boni Grant Nominated Oral Papers</td>
<td>Lecture session 5</td>
</tr>
<tr>
<td><strong>09:20–09:40</strong></td>
<td>Cervical kyphosis study</td>
<td><strong>09:30–10:30</strong></td>
</tr>
<tr>
<td><strong>09:40–10:45</strong></td>
<td>Lecture session 2</td>
<td>Lecture session 6</td>
</tr>
<tr>
<td><strong>10:45–11:30</strong></td>
<td>Industrial and poster exhibition, coffee break</td>
<td><strong>11:00–11:40</strong></td>
</tr>
<tr>
<td><strong>11:40–12:15</strong></td>
<td>Presidential lecture CSRS North America</td>
<td>Presidential lecture CSRS Asia Pacific</td>
</tr>
<tr>
<td><strong>12:15–13:30</strong></td>
<td>Lunch symposia</td>
<td><strong>12:15–13:30</strong></td>
</tr>
<tr>
<td><strong>13:30–14:00</strong></td>
<td>CSRS – Europe board meeting</td>
<td>Lunch symposium</td>
</tr>
<tr>
<td><strong>14:00–15:15</strong></td>
<td>Lecture session 3</td>
<td>Lecture session 7</td>
</tr>
<tr>
<td><strong>15:55–16:55</strong></td>
<td>Industrial and poster exhibition, coffee break</td>
<td>Debate session – pro vs. contra</td>
</tr>
<tr>
<td><strong>16:55–17:10</strong></td>
<td>Lecture session 4</td>
<td>Lecture session 8 – case presentation: Challenges in cervical surgeries, complications and solutions</td>
</tr>
<tr>
<td><strong>17:10–17:30</strong></td>
<td>Jeffrey C. Wang (CSRS-NA), Kuniyoshi Abumi (CSRS-AP)</td>
<td>Announcement of Mario Boni Grant Winners and final remarks</td>
</tr>
<tr>
<td><strong>17:30–18:00</strong></td>
<td>Lunch symposium</td>
<td></td>
</tr>
<tr>
<td><strong>18:15–18:30</strong></td>
<td>Welcome lecture</td>
<td><strong>17:30–18:00</strong></td>
</tr>
<tr>
<td><strong>18:30–19:30</strong></td>
<td>Cocktail hour</td>
<td><strong>17:30–18:00</strong></td>
</tr>
<tr>
<td><strong>19:00</strong></td>
<td>Social evening</td>
<td><strong>19:00</strong></td>
</tr>
</tbody>
</table>
15:00–17:30  CSRS–Europe board meeting
Lungau

17:30–18:00  CSRS–Europe general assembly
Salzburg I

18:15–18:30  Welcome lecture
Salzburg I
Chairs         Heiko Koller, Michael Mayer (Fürth/DE)
               Herbert Resch (Salzburg/AT)
               Dean of University of Salzburg

18:30–19:30  Cocktail hour
EVERYDAY LIFE IS EVERYTHING

Together we can get your patients home sooner.
08:15–08:30  Welcome address by local hosts
Salzburg I  Heiko Koller, Michael Mayer (Fürth/DE)
  
  Presentation of progress of the CSRS–Europe book project
  and CSRS-Europe travel fellowship programme
  Heiko Koller (Fürth/DE)

08:30–09:20  Lecture session 1
Salzburg I  Mario Boni grant nominated oral papers
Chairs  Claes Olerud (Uppsala/SE), Carmen Vleggeert-Lankamp (Utrecht/NL)

08:30 Randomized, placebo-controlled, double-blinded trial of granulocyte colony
stimulating factor-mediated neuroprotection for acute spinal cord injury
Takeo Furuya, Yasushi Ijima, Junya Saito, Mitsuhiro Kitamura
Seiji Ohtori, Masashi Yamazaki, Hideki Hanaoka
G-SPIRIT group

08:40 Adjacent level degeneration of the cervical spine – assessment of a
quantitative radiological scoring system
Jelle Verhoeven, Joost Dejaegher, Marie Cappelle, Philippe Demaerel
Jan Goffin, Bart Depreitere

08:50 A comparative analysis of the posterior decompression surgery for
ossification of posterior longitudinal ligament of the cervical spine:
a multicenter study
Yoshiomi Kobayashi, Junichi Yamane, Narihito Nagoshi
Soraya Nishimura, Osahiko Tsuji, Ken Ninomiya, Nobuyuki Fujita
Mitsuru Yagi, Kota Watanabe, Takeshi Ikegami, Eijiro Okada
Masaya Nakamura, Morio Matsumoto, Ken Ishii
KSRG members

09:00 No benefits for artificial disc replacement over fusion in patients with cervical
degenerative disc disease – a five-year follow-up of a prospective randomized
controlled study
Anna M. Mac Dowall, Martin Skephholm, Nuno Canto Moreira
Katharina Marques, Yohan Robinson, Claes Olerud
09:10 Maintaining endotracheal tube cuff pressure at 20 mm Hg to prevent dysphagia after anterior cervical spine surgery – a double blind randomized controlled trial
Mark P. Arts, Jasper F. C. Wolfs, Thijs C. D. Rettig, Naomi de Heij Jessica de Vries, Bastiaan A. in ‘t Veld

09:20 Does the sagittal alignment of the cervical spine have an impact on disc degeneration? 20-year follow-up of asymptomatic volunteers
Eijiro Okada, Kenshi Daimon, Hirokazu Fujiwara, Yuji Nishiwaki Nobuyuki Fujita, Takashi Tsuji, Masaya Nakamura, Morio Matsumoto Kota Watanabe

09:30–09:40 Introduction and presentation of the CSRS–ES cervical kyphosis study
Salzburg I
Chair Michael Mayer (Fürth/DE)

Introduction
Heiko Koller, Justin Smith, Hossein Mehdian, Christopher P. Ames Ronald H. M. A. Bartels, Johannes Schroeder, Richard Ferch, Tomoaki Toyone Vedat Deriven, Christopher Shaffrey, Yohan Robinson

09:40–10:45 Lecture session 2
Salzburg I
Chairs Björn Zoëga (Stockholm/SE), Hugues Pascal-Mousselard (Paris/FR)

09:40 The health impact of adult cervical deformity in patients presenting for surgical treatment – comparison to population norms and chronic disease states based on the EQ-5D
Justin S. Smith, Bret Line, Shay Bess, Christopher I. Shaffrey Han Jo Kim, Greg Mundis, Justin Scheer, Eric Klineberg, Munish Gupta Alan Daniels, Michael Kelly, Jeffrey Gum, Frank Schwab, Virginie Lafage Reanud Lafage, Tamir Ailon, Peter Passias, Themistoklis Protopsaltis Robert Hart, Doug Burton, Vedat Deviren, Christopher P. Ames International Spine Study Group
09:48 008
The mirror placement is useful for standardized head position when whole
spine radiographs are taken in standing position
Shin Oe, Daisuke Togawa, Go Yoshida, Tomohiko Hasegawa
Yu Yamato, Sho Kobayashi, Tatsuya Yasuda, Tomohiro Banno
Yuki Mihara, Yukihiro Matsuyama

09:56 009
Perioperative complications after the cervical anterior surgery for
degenerative cervical spine
Atsuomi Aiba, Macondo Mochizuki, Ryo Kadota, Takeo Furuya

10:04 010
Three-column osteotomy for correction of cervical deformity – alignment changes
and early complications in a multicenter prospective series of 24 patients
Justin S. Smith, Christopher I. Shaffrey, Han Jo Kim, Brian Neuman
Eric Klineberg, Frank Schwab, Virginie Lafage, Renaud Lafage
Justin Scheer, Themis Protopsaltis, Peter Passias, Greg Mundis
Robert Hart, Vedat Deviren, Shay Bess, Christopher P. Ames
International Spine Study Group

10:12 011
Clinical and radiological spectrum of patients with Klippel-Feil-Syndromes
with analysis of operative results
Jörg Klekamp

10:20 012
The diagnostic accuracy of somatosensory evoked potentials
in evaluating new neurological deficits after posterior cervical fusions
Alexander Vladimirovich Burtsev, Olga Mikhailovna Pavlova

10:28 013
Preoperative patient characteristics and pedicle screw placement accuracy
influence postoperative complication rates in patients with fusion surgery at
the Cervicothoracic Junction (CTJ)
Heiko Koller, Axel Hempfing, Michael Mayer

10:36 014
Outcomes of operative treatment for adult cervical deformity – a prospective
multicenter assessment with one-year follow-up
Justin S. Smith, Christopher I. Shaffrey, Han Jo Kim, Greg Mundis
Munish Gupta, Eric Klineberg, Frank Schwab, Virginie Lafage, Renaud Lafage
Peter Passias, Themis Protopsaltis, Brian Neuman, Alan Daniels, Tamir Ailon
Justin Scheer, Alex Soroceanu, Khal Kebaish, Robert Hart, Michael O’Brien
Doug Burton, Vedat Deviren, Todd Albert, K. Daniel Riew, Shay Bess
Christopher P. Ames
International Spine Study Group
10:45–11:15  Industrial and poster exhibition, coffee break

11:15–11:55  Session of experience
Salzburg I  Worst case scenarios and learning from failure
Moderators  Andre Jackowski (London/GB), Philippe Bancel (Paris/FR)

International faculty exchange
Faculty  Hossein Mehdian (Nottingham/GB), Takachika Shimizu (Takasaki/JP), Dezső Jeszenski (Zurich/CH), Bradford L. Currier (Rochester, NY/US)

11:55–12:15  Presidential lecture CSRS North America

Jeffrey C. Wang (Los Angeles, CA/US)
President elect

representing Darrel S. Brodke (Lake City, UT/US)
current president of the CSRS – NA
12:15–13:30 Medtronic lunch symposium*
Attersee
Chair Björn Zoëga (Stockholm/SE)

12:15 Introduction

12:20 An overview on Value Based Health Care (VBHC)
What does VBHC really mean (concept/theory)?
VBHC in the Swedish reimbursement system
Björn Zoëga (Stockholm/SE)

12:35 What does VBHC means to my practice?
Patient pathways before and after degenerative spinal surgeries
Fast-tracking surgeries for the degenerative spine patients
Nuno Neves (Lisbon/PT)

12:50 Discussion

* lunch will be served
12:15–13:30  NuVasive lunch symposium*
Wolfgangsee  Cervical alignment matters. Emerging techniques to restore global alignment with computer-assisted surgery.

Faculty  Dominique Rothenfluh (Oxford/GB), Tobias Pitzen (Langensteinbach/DE)
Donald Blaskiewicz (San Diego, CA/US)

Introduction
Current and emerging data illustrates a direct correlation between spinal alignment and long term clinical outcomes. Specific spinal and spinopelvic parameters are key predictors in determining successful patient outcomes in all spinal procedures from single- to multi-level pathologies. Sagittal malalignment of the cervical spine has also been associated with worsened postsurgical outcomes. For better operative planning of fusion and alignment restoration, improved knowledge of ideal fusion angles and interdependences between upper and lower cervical spine alignment is needed. Because spinal and spinopelvic parameters might play a role in cervical sagittal alignment, their associations should be assessed.
NuVasive is committed to a global approach for assessing, preserving, and restoring spinal alignment in an effort to promote surgical efficiencies, lasting patient outcomes, and improved quality of life.

Learning objectives
1. Understand association between cervical sagittal alignment and spinal and spinopelvic parameters.
2. Learn how to calculate alignment parameters with preoperative planning tools.
3. Know the technical aspects of anterior and posterior cervical column reconstruction with comprehensive procedural solutions with real-time intraoperative assessment.
4. Obtain an overview of the latest clinical evidence.
5. Acquire tips and trick through case based discussions.

* lunch will be served
14:00–15:15 Lecture session 3
Salzburg I
Chairs Anton Kathrein (Zams/AT), Christoph-Eckhard Heyde (Leipzig/DE)

14:00  Collateral flow for vertebrobasilar region evaluated by digital subtraction angiography
      Takeshi Aoyama, Naoshi Obara

14:08  Risk factors and prognosis for acute progression of myelopathic symptoms in patients with ossification of the posterior longitudinal ligament after minor trauma
      Jong-myung Jung, Chun Kee Chung, Chi Heon Kim

14:16  Trauma of the extracranial brain arteries due to trauma of the cervical spine
      Vladimir S. Klimov, Muragon A. Kasimshoev

14:24  Odontoid fractures in multi-morbid elderly patients – percutaneous posterior trans-articular atlantoaxial fixation – a prospective study
      Mohamed Alhashash, Mootaz Shousha, Hassan Allouch, Heinrich Boehm

14:32  Minimally invasive stabilization of the upper cervical fractures – a new technique of C1 lateral mass screw insertion via a direct posterolateral approach
      Takamitsu Tokioka, Takahiro Hayashi, Keitaro Tada

14:40  Posttraumatic syringomyelia related to cervical injuries
      Jörg Klekamp

14:48  A finite element analysis of the occipitoatlantal capsular ligaments as the primary stabilizers of the craniocervical junction
      Andrew T. Dailey, Richen Phuntsok, Douglas L. Brockmeyer, Benjamin J. Ellis

14:56  Do patients with traumatic cervical spinal cord injury benefit from very early surgical decompression under 5 hours after injury?
      Maria Gollwitzer, Georg Mattiassich, Stephanie Aschauer-Wallner Wolfgang Hitzl

15:04  Bicortical facet screws as a new option for posterior C2 fixation:
anatomical study and clinical experience
      Angelo Rusconi, Cedric Barrey, Kone Noukhoum, Eurico Freitas-Olim
15:15–15:55 Round table session I
Salzburg I Cervical spine revision surgery
Moderators Heiko Koller (Fürth/DE), Ronald H. M. A. Bartels (Nijmegen/NL)
Discussants Claes Olerud (Uppsala/SE)
Abolfazl Rahimizadeh (Teheran/IR)
Christopher P. Ames (San Francisco, CA/US)

15:15 1. case
15:17 Discussion

15:27 2. case
15:29 Discussion

15:39 3. case
15:41 Discussion

15:55–16:25 Industrial and poster exhibition, coffee break

At Silony Medical we work with passion and commitment, doing everything possible to achieve the best results. We work in partnership with clinicians, solving problems, going beyond the accepted standard and looking at new trends that improve patient outcomes and best practices. Our core values – quality, integrity and teamwork – guide our work every day and with every patient.
16:25–16:55  Lecture session 4
Salzburg I
Chairs
José M. Casamitjana (Barcelona/ES), Carlos Villas Tomé (Pamplona/ES)

16:25  The accuracy of three different ways of the cervical pedicle screw insertion
O24  Hisanori Ikuma, Shinichiro Takao

16:31  Comparison of the AO Spine subaxial cervical spine injury classification
system and the Allen classification
O25  Thomas Apostolou, Ioanna Chatziprodromidou, Apostolos Karagiannidis
Stefanos Papadopoulos

16:37  Predictive model for distal junctional kyphosis after cervical deformity surgery
O26  Peter Passias, Dennis Vasquez-Montes, Gregory W. Poorman
Themistocles Protopsaltis, Samantha Horn, Bassel Diebo
Christopher P. Ames, Justin Smith, Virginie LaFage, Renaud LaFage
Eric Klineberg, Christopher Shaffrey, Shay Bess, Frank Schwab
International Spine Study Group (ISSG)

16:43  Percutaneous ultrasonographic observation of the spinal cord after cervical
laminoplasty at the postoperative early periods
O27  Yoshiharu Nakaya, Atsushi Nakano, Kenta Fujiwara, Takashi Fujishiro
Sachio Hayama, Toma Yano, Masashi Neo

16:49  Trunk shift and head tilt in congenital scoliosis of the cervicothoracic junction
O28  Peter Obid, Gregor Ostrowski, Tobias Pitzen, Jörg Drumm, Michael Ruf

16:55–17:10  Preview upon future CSRS meetings 2018
Salzburg I

16:55  Europe
Óscar L. Alves (Porto/PT)

17:00  North America
Jeffrey C. Wang (Los Angeles, CA/US)
representing Darrel S. Brodke,
current president of the CSRS û NA (Lake City, UT/US)

17:05  Asia-Pacific
Kuniyoshi Abumi (Sapporo/JP)
representing Shanmuganathan Rajasekaran,
current president of the CSRS – AP (Coimbatore/IN)
17:10–17:30 Invited special guest lecture
Salzburg I
Chairs Michael Mayer (Fürth/DE), Andrés Combalia (Barcelona/ES)

17:10 Advances in the treatment of spinal cord injury – current mile-stones and future visions
Michael Fehlings (Toronto/CA)

17:30–18:00 Get-together in the exhibition area

With You
Every Step of the Way
Spine Procedural Solutions
08:30–09:30 Lecture session 5
Salzburg I

Chairs: Petr Suchomel (Prague/CZ), Thomas Freude (Salzburg/AT)

08:30

Safety and efficacy of a novel anterior decompression technique (vertebral body sliding osteotomy) for ossification of posterior longitudinal ligament of the cervical spine: comparison of postoperative outcomes between vertebral body sliding osteotomy and anterior corpectomy and fusion

Dong-Ho Lee, Jae Hwan Cho

08:38

Evaluation and clinical use of DTI-MRI in patients with cervical spondylotic myelopathy

Cevat Akinci, Ismail Bozkurt, Omer Faruk Ates, Omer Faruk Turkoglu, Giyas Ayberk

08:46

Endogenous inflammatory response in cervical spondylotic myelopathy: a pilot series

Christian Blume, Hans Clusmann, Maximillian Schmeisser, Lars Brandenburg, Christian Andreas Mueller

08:54

The causes of failed various types of posterior surgery for cervical myelopathy due to OPLL and clinical outcomes of anterior decompression and arthrodesis as a revision surgery for failed posterior surgery

Macondo Mochizuki, Atuomi Aiba, Ryo Kadota, Masao Koda

09:02

Correlation between novel classification of cervical myelopathy and spinal cord compression form

Hisanori Mihara, Yasunori Tatara, Takanori Niimura, Yohei Itoh

09:10

Upper cervical spine fixation for Bow-hunter syndrome

Hiroyuki Nakase, Yasuhiro Takeshima, Yasushi Motoyama, Young-Su Park

09:18

Dural tube continues to expand after muscle sparing cervical laminectomy

Ryoma Aoyama, Tateru Shiraiishi, Junichi Yamane, Ken Ninomiya, Kazuya Kitamura, Satoshi Nori, Satoshi Suzuki
09:30–10:30 Lecture session 6
Salzburg I

Chairs: Meriç Enercan (Istanbul/TR) Yasushi Yukawa (Nagoya/JP)

09:30 Dose additional uncinate resection increase pseudarthrosis following anterior cervical discectomy and fusion?
Dong-Ho Lee, Jong-Min Baik, Jae Hwan Cho, Chang Ju Hwang Choon Sung Lee

09:38 Long-term follow-up of adjacent segment degeneration after anterior cervical discectomy and fusion
Marcus D. Mazur, Andrew T. Dailey, Lubdha M. Shah, Joel D. MacDonald

09:46 Re-operation rate after anterior cervical fusion using standalone cages in degenerative cervical spondylosis based on 2078 patients – long term follow up
Mohamed Alhashash, Mootaz Shousha, Hassan Allouch, Hany Gendy Heinrich Boehm

09:54 What is the best surgical treatment for patients with cervical radiculopathy due to single-level degenerative disease, anterior cervical discectomy without fusion, with fusion by cage stand-alone, or with arthroplasty? a randomised controlled trial
Roland D. Donk, Andre Verbeek, Wim im Verhagen Allard J. F. Hosman, Ronald H. M. A. Bartels

10:02 Unintended fusion in cervical artificial disc replacement – a prospective study on heterotopic ossification with 5 years follow-up
Catarina Marques, Nuno Canto Moreira, Anna MacDowall Martin Skeppholm, Claes Olerud

10:10 The Leuven cervical disc prosthesis study at 10 years of follow-up: progression of degeneration at the level cranial to the prosthesis and associated variables
Jelle Verhoeven, Joost Dejaegher, Marie Cappelle, Philippe Demaerel Jan Goffin, Bart Depreitere
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10:18</strong></td>
<td>Comparing cost-effectiveness of arthroplasty with fusion in treatment for one level cervical radiculopathy</td>
<td>Oddrun A. Fredriksli, Jarle Sundseth, Frode Kolstad, Hege Andresen Kay Müller, Erling Myrseth, John A. Zwart, Oystein P. Nygaard Lars G. Johnsen</td>
</tr>
<tr>
<td><strong>10:30–11:00</strong></td>
<td>Industrial and poster exhibition, coffee break</td>
<td></td>
</tr>
<tr>
<td><strong>11:00–11:40</strong></td>
<td>Round table session II</td>
<td>Salzburg I Traumatic injuries of the cervical spine Moderators Björn Zoëga (Stockholm/SE), Michael Mayer (Fürth/DE) Discussants Petr Suchomel (Prague/CZ) Claudius Thomé (Innsbruck/AT) Jan Štulík (Prague/CZ) 1. case 11:02 Discussion 11:12 2. case 11:14 Discussion 11:16 3. case 11:18 Discussion 11:40–12:00 Presidential lecture CSRS–Asia Pacific Kuniyoshi Abumi (Sapporo/JP) representing Shanmuganathan Rajasekaran, current president of the CSRS – AP (Coimbatore/IN)</td>
</tr>
<tr>
<td><strong>12:00–12:10</strong></td>
<td>Message by CSRS – Europe president</td>
<td>Ronald H. M. A. Bartels (Nijmegen/NL)</td>
</tr>
</tbody>
</table>
There are many challenges associated with the surgical treatment of Post-traumatic Cervical Deformities. Post-traumatic cervical osseous and disco-ligamentous lesions, if left undiagnosed, may result in irreducible extreme kyphosis and other complications. The correction of such deformities therefore requires major surgery and often necessitates a combined anterior and posterior approach. The surgical goal is therefore to correct bony compression of vascular and neural structures, reduce deformity and achieve circumferential fusion with physiological alignment. Such complex surgeries, however, are not without considerable associated neurological risks. Extensive pre-operative planning of the intervention and substantial surgical experience is therefore mandatory to achieve good results.

The symposium will focus on the major challenges faced from interventions associated with Post-traumatic Cervical Deformities surgeries and will seek to better understand, how different surgical techniques and strategies, can be potentially incorporated to improve outcomes. The workshop will primarily consist of an interactive case presentation and discussion format.

12:10 Introduction
Challenges in the surgical treatment of post-traumatic cervical deformities

12:20 The impact and management of post-traumatic cervical deformity spine surgeries
- surgical solutions case presentations and discussion
- considerations – where and how to extend fixation
- intraoperative challenges and management of operative complications
14:10–15:10 Lecture session 7
Salzburg I
Chairs Yohan Robinson (Uppsala/SE), Andre Tomasino (Munich/DE)

14:10 Trends in utilization and cost of cervical spine surgery using the National Inpatient Sample Database, 2001–2013
Corinna Zygourakis, Caterina Liu, Seungwon Yoon, Tamara Kliot John Ratliff, Christopher Moriates, R. Adams Dudley, Ralph Gonzales Praveen Mummaneni, Christopher P. Ames

14:16 Multi-level anterior cervical fusion – Do low levels of vitamin D increase the risk of revision?

14:22 Global balance and pathology in patients with cervical spondylotic myelopathy
Go Yoshida, Abdulmajeed Alzakri, Yu Yamato, Tomohiko Hasegawa Shin Oe, Daisuke Togawa, Vincent Pointillart, Jean Marc Vital Yukihiro Matsuyama, Oliver Gille

14:28 Mortality, complication and fusion rates after C1-C2 injury – results from a prospective observational multicenter study
Cedric Y. Barrey, Eurico Freitas, Laurent Barresi, Benjamin Blondel Stéphane Fuentes, Benjamin Nicot, Vincent Challier, Maxime Lleu Joel Godard, Pascal Kouyoumdjian, Nicolas Lonjon, Julien Berthiller Yann-Philippes Charles

14:34 The importance of the occipitocervical region in patients with ankylosing spondylitis (AS) analysis of a cohort of 86 cervical fractures in surgically treated patients with AS
Augusto Covaro, Nodoka Manabe, Yohan Robinson, Claes Olerud

14:40 Posttraumatic syringohydromyelia, diagnosis of the progression and treatment
Alexander Valentinovich Beletsky, Sergey Alexandrovich Karcheuski Inessa Alexandrovna Ilyasevich, Oleg Ivanovich Dulub
14:46 Influence of correction surgery for cervical kyphosis on foraminal stenosis in the cervical spine
Terumasa Ikeda, Masao Akagi, Kazuki Hshimoto, Hiroshi Miyamoto

14:52 Direct cost analysis of 38 cervical spinal deformity operations across two major spinal deformity centers with implications for catastrophic costs and 90-day cost bundles
Corinna C. Zygourakis, Justin Scheer, Lizette Upton, Seungwon Yoon
Samrat Yeremaneni, Richard Hostin, Michael F. O’Brien
Christopher Shaffrey, Justin Smith, Vedat Deviren, Christopher P. Ames

14:58 Removal of foraminal cervical disc prolapse from anterior avoiding fusion or artificial without touching the disc – longterm results
Heinrich Boehm, Mootaz Shousha, Hassan Allouch

15:10–15:45 Debate session – pro vs. contra
Salzburg I Post-traumatic disorders – kyphosis, myelopathy and spinal cord injury
Surgical realignment is important vs. is not important!
Moderators Óscar L. Alves (Lisbon/PT), Philippe Bancel (Paris/FR)

15:10 Pro
Tobias Pitzen (Karlsbald-Langensteinbach/DE)

15:20 Contra
Yohan Robinson (Uppsala/SE)

15:30 Discussion

15:45–16:15 Industrial and poster exhibition, coffee break

16:15–17:00 Lecture session 8 – case presentation
Salzburg I Challenges in cervical surgeries, complications and solutions
Chairs Ronald H. M. A. Bartels (Nijmegen/NL), Peter Winkler (Salzburg/AT)

16:15 Neglecting osteoporosis in cervical spine surgery has high potential for severe complications
Sebastian Decker, Axel Hempfing, Oliver Meier, Heiko Koller
16:22 Secondary atlanto-axial deformities by reason on neglected odontoid axis fracture
Fumihiro Arizumi, Toshiya Tachibana, Kazuki Kusuyama
Kazuya Kishima, Shinichi Yeshiva

16:29 Basilar invagination with asymmetrical cross-block of C0-C1-C2-C3, Chiari I and syringomyelia – rare anomaly and its management
Olga M. Pavlova, Sergey O. Ryabykh, Alexander V. Burcev
Konstantin A. Dyachkov

16:36 Progressive loss of already heavily impaired motor function of the upper extremities – Should we dare to treat it and how?
Heiko Koller, Juliane Koller

16:43 Total En Bloc Spondylectomy of C3 – a new surgical technique
Jan Štulík, Petr Nesnidal, Jan Kryl, Tomas Vyskocil, Michal Barna

16:50 Tuberculous subacute painful torticollis in a young woman?
a challenging case
Abolfazl Rahimizadeh

17:00–17:20 Invited special guest lecture
Salzburg I
Chairs Michael Mayer (Fürth/DE), Anton Kathrein (Zams/AT)

17:00 Risk Management in special challenges
Thomas Bubendorfer (Monaco/FR)

17:20–17:25 Announcement of Mario Boni grant winners and announcement of poster prize winners
Salzburg I
Chairs Claes Olerud (Uppsala/SE), Carmen Vleggeert-Lankamp (Utrecht/NL)

17:25–17:30 Final remarks
Salzburg I
Chairs Heiko Koller, Michael Mayer (Fürth/DE)

from 19:00 Social evening (not included in registration fee)
(see p.40)
German Spine Conference
12th Annual Meeting of the German Spine Society

30 November–2 December 2017
International Congress Center Stuttgart

SPINAL MICROSURGERY 23
Posterior Approaches to the Lumbar Spine
HANDS-ON COURSE
September 14–15, 2017 • Munich, Germany
SPONSORS, EXHIBITORS AND MEDIA COOPERATION

Platinum sponsor
NuVasive Netherlands B. V. (Amstelveen/NL)

Gold sponsor
Zimmer Biomet (Sainte Savine/FR)

Silver sponsors
B. Braun Aesculap (Tuttlingen/DE)
Silony Medical Europe GmbH (Bern/CH)
DePuy Synthes (Zuchwill/CH)
Medtronic (Tolochenaz/CH)

Exhibitors
3D Systems (Leuven/BE)
ASCIS – Austrian Spinal Cord Injury Study (Salzburg/AT)
B. Braun Aesculap (Tuttlingen/DE)
DePuy Synthes (Zuchwill/CH)
Group FH Ortho (Heimsbrunn/FR)
HumanTech Germany GmbH (Steinenbronnt/DE)
Medicon eG (Tuttlingen/DE)
Medtronic (Tolochenaz/CH)
NuVasive Netherlands B. V. (Amstelveen/NL)
Providence Medical Technology (Walnut Creek, CA/US)
Silony Medical Europe GmbH (Bern/CH)
SpineGuard (Vincennes/FR)
Zimmer Biomet (Sainte Savine/FR)

State at printing
We support spine surgeons with durable, reliable products and partner services for safe procedures and outstanding clinical outcomes since the early 80’s. Our philosophy of sharing expertise with healthcare professionals and patients allows us to develop innovative implant and instrument systems that help to preserve stability and stabilize the cervical and thoracolumbar spine.

DePuy Synthes Companies of Johnson & Johnson provides one of the most comprehensive portfolios of orthopedic and neurological solutions in the world. DePuy Synthes Companies solutions, in specialties including joint reconstruction, trauma, neurological, craniomaxillofacial, spinal surgery and sports medicine, are designed to advance patient care while delivering clinical and economic value to health care systems worldwide. 
For more information, visit www.depuysynthes.com.

As a global leader in medical technology, services and solutions, Medtronic improves the lives and health of millions of people each year. We use our deep clinical, therapeutic and economic expertise to address the complex challenges faced by healthcare systems today.
Let’s take healthcare Further, Together. Learn more at medtronic.com.

NuVasive is a world leader in minimally invasive, procedurally integrated spine solutions. From complex spinal deformity to degenerative spinal conditions, NuVasive is transforming spine surgery with innovative technologies designed to deliver reproducible and clinically proven surgical outcomes. NuVasive’s highly differentiated procedurally integrated solutions include access instruments, implantable hardware and software systems for surgical planning and reconciliation technology that centers on achieving the global alignment of the spine.
Silony Medical signifies achieving clinical benefits through providing surgical solutions in the field of spinal surgery. We combine established and diverse experience in patient care and hospital management together with expertise and innovation from clinical users.
Providing surgical solutions tailored exactly to the needs of spinal surgeons, clinical staff and patients. Our products and services are intelligently designed that simplify the work of physicians and hospital personnel throughout the patient pathway.
We are proud of our – Made in Germany – which symbolises high quality in manufacturing and engineering.

Zimmer Biomet was created to redefine musculoskeletal healthcare, and to help improve the lives of those we serve. Our singular goal is to help achieve exceptional outcomes for patients, healthcare professionals, investors, our team members, and the communities in which we work.
Zimmer Biomet is uniquely positioned to accelerate the pace of innovation and to drive growth. This simple but powerful philosophy is summarized by our tagline, “Your progress. Our promise.” It reminds us that we can achieve more when we work together in pursuit of our shared goals.
Cocktail hour
Date: May 24, 2017
Time: 19:30–20:30
Location: Wyndham Grand Salzburg, Fanny-von-Lehnert-Strasse 7, 5020 Salzburg (AT)

Get-together
Date: May 25, 2017
Time: 17:30–18:00
Location: Wyndham Grand Salzburg, Fanny-von-Lehnert-Strasse 7, 5020 Salzburg (AT)

Social evening
Date: May 26, 2017
Time: from 19:00
Location: Restaurant Zistelalm, Am Gaisberg, 5026 Salzburg (AT)
Fee: 95 EUR

Shuttle
- from hotel to Zistelalm: 19:00
- from Zistelalm to hotel: 23:30/24:00

Taxi for individual travel arrangements:
- +43 662 22 20
- +43 664 910 09 12
Registration
Registration for the conference is required. Please register online at www.csrs-salzburg2017.com.

<table>
<thead>
<tr>
<th>Registration fees</th>
<th>Regular fee</th>
<th>On-site fee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>until May 1</td>
<td>from May 2</td>
</tr>
<tr>
<td>Delegate</td>
<td>730 EUR</td>
<td>790 EUR</td>
</tr>
<tr>
<td>Trainee</td>
<td>480 EUR</td>
<td>520 EUR</td>
</tr>
<tr>
<td>Social evening</td>
<td>95 EUR</td>
<td>95 EUR</td>
</tr>
<tr>
<td>Welcome acc. person</td>
<td>80 EUR</td>
<td>80 EUR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day tickets</th>
<th>May 24</th>
<th>May 25</th>
<th>May 26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delegate</td>
<td>350 EUR</td>
<td>350 EUR</td>
<td>300 EUR</td>
</tr>
<tr>
<td>Trainee</td>
<td>190 EUR</td>
<td>190 EUR</td>
<td>150 EUR</td>
</tr>
</tbody>
</table>

* Please send a confirmation of your status either to registration@conventus.de, Fax +49/03641 31 16-244 or by mail to Conventus GmbH • indicating the keyword: CSRS2017 • Carl-Pulfrich-Strasse 1 • 07745 Jena, Germany

Payment and confirmation of payment
An invoice or confirmation of registration will be sent to you via postal or electronic mail within 14 days. This invoice is a valid invoice which may be submitted to the local tax and revenue office. All fees are due upon receipt of invoice/registration confirmation. Payment transfers must include participant’s name and invoice number. Payment is also accepted by credit card (Master-/Eurocard, American Express, VISA). Should you transfer your invoice amount within 10 days of the start of the event, please present your transfer remittance slip on-site.

General terms and conditions
Please find our general terms and conditions at www.csrs-salzburg2017.com.

The registration fees include:
- Admission to all scientific sessions and access to our industrial exhibition
- Cocktail hour
- Get together
- Congress materials (bag, final programme and abstracts, name badge, etc.)
- Refreshments as indicated in the programme
GENERAL INFORMATION

Wyndham Grand Salzburg Congress Centre
Fanny-von-Lehnert-Strasse 7
A-5020 Salzburg

Restaurant Zistelalm
Am Gaisberg
A-5020 Salzburg

Main train station

Airport
Travel
For travel information, please refer to www.csrs-salzburg2017.com.

Certification
An application is made to the Austrian Medical Chamber (DFP).

Proof of attendance
For certification you must provide proof of attendance. Therefore, please sign/add your bar code to the list at the check-in desk, on-site every day at the conference.

Certificate of attendance
Certificates of attendance will first be made available on the last day of the conference at the check-in.

Name badge
Please wear your name badge during all conference events, including the networking activities. Admission to scientific sessions and to the industrial exhibition is restricted to participants wearing their badge. Participants will receive their name badge when collecting their conference/congress documents at the check-in desk.

Evaluation
Please take a few moments to fill out the evaluation form to help us refine and improve our programme. You can hand in your evaluation form at the check-in.

Cloakroom
Cloak racks are located within the lecture halls. On May 26 your luggage can be dropped off at the hotel reception.
### GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Event</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial exhibition</td>
<td>17:00–19:30</td>
<td>08:00–18:00</td>
<td>08:00–16:30</td>
</tr>
<tr>
<td>e-poster exhibition</td>
<td>17:00–19:30</td>
<td>08:00–18:00</td>
<td>08:00–17:00</td>
</tr>
<tr>
<td>Check-in</td>
<td>14:00–19:00</td>
<td>07:30–18:00</td>
<td>08:00–18:00</td>
</tr>
<tr>
<td>Speakers’ ready room</td>
<td>17:00–18:30</td>
<td>07:30–18:00</td>
<td>08:00–17:00</td>
</tr>
</tbody>
</table>

### WIFI access

A wireless network will be available throughout the entire building and will be free of charge. If you are accommodated in the congress hotel, you can easily access the internet by using your room number and last name. If you are accommodated in another hotel, they need to retrieve a voucher (1 per device) at the check-in.

### Conference language

The conference language is English.

### Publication of abstracts

All abstracts will be published in the programme booklet and are available online via the congress website.

### Awards

The Mario Boni grant nominated oral paper will be rewarded with 1,000 EUR. The Mario Boni grant nominated poster will be rewarded 500 EUR.

### Poster prizes

The three best posters will be selected for a poster prize and awarded 500 EUR each. All potential awardees will be informed in time and are kindly asked to attend the award session on Friday, May 26, 17:20 in Salzburg I. Please check your e-mail account for notification if your poster has been nominated for a poster prize.

The prizes are kindly sponsored by the Spondylos GmbH.

Awards and poster prizes will be presented on Friday, May 26 during the award session 17:20 in Salzburg I.
Submission of a presentation/Technical information
The presentation should be prepared as PDF, MS Office PowerPoint for Windows or Keynote for Macintosh in format 16:9.
A presentation notebook with a PDF reader and MS Office PowerPoint 2016 will be provided. The use of personal notebooks is possible upon agreement. However, it may interrupt the flow of the programme in the lecture hall. Please provide an adapter for VGA if necessary. To guarantee a smooth running programme please upload your presentation in due time – at least 2 hours before your presentation is due to start. Should you wish to use non-digital equipment, please contact us at csrs@conventus.de.

Presentation upload
The speakers’ ready room for uploading your presentation is located on the first floor, room Pongau. For submission, please use a USB flash drive, CD or DVD disc that is not protected by any software. Professional staff and equipment will be available for you to arrange and preview your presentation.

Time allocation
Please prepare your presentation for the allotted amount of time. Chairs and moderators may interrupt should you overrun your time limit.

Allotted time is assigned as follows (speaking + discussion time):

**Presidential lectures**
Presentation time is 15min.

**Invited special guest lectures**
Presentation time should be max. 20 min.

**Standard lecture sessions, e.g. session 2 and others**
Presentation time is 5 min + 3 min discussion and changing time.

**Mario Boni grant nominated oral papers**
Presentation time is 7 min + 3 min discussion and change.

**Mario Boni grant nominated posters**
Presentation time is 3 min + 3 min discussion.

**Presenters at “Session of experience: worst case scenarios and learning from failure”**
Presentation time is 5 min + 5 min discussion and change.
Round table sessions
Presentation time is 2 min. There is 8 min time for discussion.

Debate session – pro vs. contra
Presentation time for each lecture is 10 min + discussion at the end of both lectures 10 min.

Case presentations
Presentation time is 3 min for the case report + 4 min time for discussion.

Preview upon future CSRS meeting 2018
Presentation time is 3 min.

e-posters
For creating your e-poster please note the following points:
• Each abstract author is requested to upload the e-poster as PDF or JPG file in the abstract system.
• e-posters need to be prepared in vertical/portrait format 16:9 (resolution wide 3840 x high 2160 pixel, 72 dpi). Use your PC or MAC screen to decide whether the text size is readable on a screen!
• Use the template file for creating your e-poster, available online.
• Save the e-poster in PDF or JPG format
• On-site, the presentation will be provided at self-study stations with a screen of 60 inches.
• Please use name for file as follows: New Programme ID_Surname (such as P125_Smith)
• Deadline for upload is May 1, 2017.

Did you know?

Conventus is the Professional Congress Organizer of the 33rd Annual Meeting of the CSRS-ES*

*Cervical Spine Research Society Europe
34th ANNUAL MEETING
CERVICAL SPINE RESEARCH SOCIETY EUROPEAN SECTION
www.csrs-lisbon2018.com

9–11 MAY 2018
Lisbon