The conference
The 2014 [MEET THE EXPERT] Implants is dedicated to experts and persons interested in the field of active and passive implants. The program includes expert talks as well as short presentations. Discussions and networking will additionally take place at the tabletop exhibition and poster presentation area. The aim of the event is to present new developments, promote the exchange of know-how, and trigger collaborations between implant producers, subcontractors and end users. Conference languages are English and German with translation from English to German and vice-versa.

Tabletop exhibition
The tabletop exhibition will take place during the conference (exhibitor fee CHF 1’500.00, excl. VAT). Exhibitors have the opportunity to give a one minute talk during the plenary session. Registration for the tabletop exhibition can be found at: www.medical-cluster.ch/mte_participant

Partnership with SwissCCS
In addition to [MEET THE EXPERT] Implants, the annual convention for the Swiss Contamination Society (Swiss CCS) will take place on Monday April 28th. The meeting program of SwissCCS will be open for all participants of [MEET THE EXPERT] Implants.

Information and registration:
www.medical-cluster.ch/events

Organization
Peter Biedermann, Medical Cluster
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Lukas Eschbach, RMS Foundation
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Program committee
• Dr. Lukas Eschbach RMS Foundation
• PD Dr. habil. Christiane Jung, KKS Ultraschall AG
• Lukas Märklin, Institut Straumann AG
• Dr. Urban Schnell, Helbing Technik Bern AG
• Dr. sc. techn. Martin Stöckli, inspire AG
• Prof. Dr. Michael de Wild, FHNW

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Industry partner
### Meeting program Monday, 28th April 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>From 09:30</td>
<td>Registration</td>
</tr>
<tr>
<td>10:00 - 10:15</td>
<td>Welcome</td>
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<tr>
<td>10:15 - 11:00</td>
<td><strong>Session 1</strong>&lt;br&gt;<strong>Chair:</strong> Dr. Lukas Eschbach&lt;br&gt; «The new innovator’s dilemma» - delivering value through innovation (EN)&lt;br&gt; Douglas Bireley, DePuy Synthes, CH</td>
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<tr>
<td>11:00 - 11:30</td>
<td>Keynote 1: Deep brain stimulation - clinical aspects and perspectives (DE)&lt;br&gt; Prof. Dr. Volker Sturm, International Neuroscience Institute Hannover, Germany</td>
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<tr>
<td>11:30 - 12:00</td>
<td>Flash presentations exhibitors</td>
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<tr>
<td>12:00 - 13:15</td>
<td>Lunch (Exhibition and Posters)</td>
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<tr>
<td>13:15 - 13:45</td>
<td><strong>Session 2</strong>&lt;br&gt;<strong>Chair:</strong> Dr. Lukas Eschbach&lt;br&gt; Keynote 2: Advanced manufacturing - challenges and trends (DE)&lt;br&gt; Prof. Dr.-Ing. Konrad Wegener, Institut für Werkzeugmaschinen und Fertigung IWF, ETH Zürich, CH</td>
</tr>
<tr>
<td>13:45 - 14:15</td>
<td>Keynote 3: Coating-free bioactive surface for coronary stents (DE)&lt;br&gt; Dipl. Phys. Arik Zucker, QVanteq AG, CH</td>
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<tr>
<td>14:15 - 14:45</td>
<td>Keynote 4: Active ophthalmic implants (DE)&lt;br&gt; Dr. Lukas Scheibler, Alcon Laboratories, Inc, USA</td>
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<tr>
<td>14:45 - 15:05</td>
<td>Flash presentations posters</td>
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<tr>
<td>15:05 - 15:30</td>
<td>Break (Exhibition and Posters)</td>
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<tr>
<td>15:30 - 15:50</td>
<td><strong>Session 3a: Surfaces and Coatings</strong>&lt;br&gt;<strong>Chair:</strong> PD Dr. Christiane Jung&lt;br&gt; Trends in surface treatments of implantable devices (DE)&lt;br&gt; Helge Luesbrink, PVA Tepla America, Inc, USA</td>
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<tr>
<td>15:50 - 16:10</td>
<td>Innovative antibacterial and osseointegrative treatment for endosseus implants (EN)&lt;br&gt; Dr. Luca Facchini, Eurocoating s.p.a., Italy</td>
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<tr>
<td>16:10 - 16:30</td>
<td>Innovative coatings on PEEK substrate for orthopaedic implants (EN)&lt;br&gt; Céline Harnisch, Alhenia AG, CH</td>
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<tr>
<td>16:30 - 16:50</td>
<td>Improved tribological performance of PEEK polymers by application of diamond-like carbon coatings (EN)&lt;br&gt; Pawel Tomaszewski, Orthopaedic Research Lab, the Netherlands</td>
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<tr>
<td>16:50 - 17:10</td>
<td>A microporous ceramic implant surface - In Vitro and In Vivo experiences (DE)&lt;br&gt; Franz Berghänel, Metoxit AG, CH</td>
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<tr>
<td>17:10 - 18:30</td>
<td>Aperitif / Exhibition / Posters</td>
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<tr>
<td>From 19.00</td>
<td>Dinner at Hotel Metropole</td>
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</tbody>
</table>

**Key:** EN = Lecture in English | DE = Lecture in German
Meeting program Tuesday, 29th April 2014

**Session 4**  
Chair: Prof. Dr. Michael de Wild  

08:30 - 09:00  
Keynote 5: Passive implants in orthopaedics - what can be improved? (DE)  
Dr. med. Claudio Rosso, Universitätsspital Basel, CH  

09:00 - 09:30  
Keynote 6: Challenges in electro-mechanical implants (DE)  
Dr. Marco Wieland, Myopowers SA, CH  

09:30 - 10:00  
Keynote 7: Medtech startup in Switzerland - a model for the future? (DE)  
Dipl. Ing. Ralf Schumacher, Mimedis AG, CH  

10:00 - 10:30  
Break (Exhibition and Posters)

**Session 5a: Implant Requirements & Biocompatibility**  
Chair: Lukas Märklin  

10:30 - 10:50  
The interaction of blood components with titanium implant surfaces is a decisive marker for osseointegration of bone implants (DE)  
Angela Schipanski, EMPA St. Gallen, CH  

10:50 - 11:10  
Usability-results through human centered design and test models (DE)  
Raimund Erdmann, Erdmann Design AG, CH  

11:10 - 11:30  
New requirements for registration and biocompatibility of implants (DE)  
Ralf Holzinger, CONFARMA France SARL, France  

11:30 - 11:50  
Biological evaluation according to ISO 10993-1: Methods and obstacles (DE)  
Dr. Reto Luginbühl, RMS Foundation, CH  

11:50 - 12:10  
Biological safety assessment of medical device implant sets (DE)  
Dr. Frank Wirsching, BSL BIOSERVICE Scientific Laboratories GmbH, Germany

12:10 - 13:30  
Lunch (Exhibition and Posters)

**Session 5b: Implant Materials**  
Chair: Prof. Dr. Michael de Wild  

10:30 - 10:50  
High strength titanium: a new candidate for implant materials (DE)  
Dr. Florian Dalla Torre, Institut Straumann AG, CH  

10:50 - 11:10  
Numerical simulation of a transcatheter aortic valve (DE)  
Joël Grognuz, CADFEM (Suisse) AG, CH  

11:10 - 11:30  
Development of a test model to evaluate the pre-load of screw-retained dental implant systems (DE)  
Thomas Vizer, Nobel Biocare Services AG, CH  

11:30 - 11:50  
Applications of atomic layer deposition in implant dentistry (EN)  
Anatoly Solovyev, MIPT, Russia  

11:50 - 12:10  
Design optimization of a ceramic hip cup (DE)  
Sebastian Valet, EMPA Dübendorf, CH

12:10 - 13:30  
Lunch (Exhibition and Posters)

**Session 6: Markets and Trends**  
Chair: PD Dr. Christiane Jung  

13:30 - 14:00  
Keynote 8: The way how products come to market - biomechanical testing of an intramedullary nail as an example (DE)  
Andy E. Schwammberger, Zimmer Trauma, CH  

14:00 - 14:20  
The orthopaedics market in transition (DE)  
Dr. Martin Schmidt, Jossi Orthopedics AG, CH  

14:20 - 14:40  
Bringing new spinal implants to market: fundamentals and evolutions in development techniques (EN)  
Dr. Henri Defossez / Ralf Klabunde, DePuy Synthes Spine, CH  

14:40 - 15:00  
ZfW 102 / Magnezix®: the successful way to magnesium based biodegradable implants (DE)  
Prof. Dr. Volkmar Neubert, Institut für Materialprüfung und Werkstofftechnik, Germany  

15:00 - 15:20  
Short dental implants: clinical and technical challenges (DE)  
Dr. Christian Frei, Institut Straumann AG, CH  

15:20  
Conference end
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<tr>
<th>Poster Session</th>
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<tr>
<td>1 Production of Micro/Nano structured Materials by Metal Injection Moulding (MIM) and its effect on human bone marrow stromal cells</td>
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<td>Dr. Arie Bruinink, EMPA, CH</td>
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<tr>
<td>2 Post-hot isostatic pressing: A healing treatment for process related defects and laboratory grinding damage of dental zirconia?</td>
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<td>Jakob Kuebler, EMPA, CH</td>
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<td>3 A new era for porous tantalum biomaterials thanks to Additive Manufacturing: a clinical proof-of-concept</td>
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<td>Ruben Wauthle, Christian Wielk, LayerWise NV, Belgium</td>
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<td>4 Release kinetics of electrochemically deposited antibacterial copper from anodized titanium implant surfaces</td>
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<td>Prof. Dr. Michael de Wild, FHNW, CH</td>
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<tr>
<td>5 Roughness of plasma sprayed HA-ZrSiO₄ composite coatings</td>
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<tr>
<td>Dr. Hassan Gheisari Dehsheikh, Shahreza University, Iran</td>
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<td>6 Population Based Design Validation of a Subcutaneous Bone Conduction Implant System</td>
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<td>Dr. Tobias Wagner, Materialise, Germany</td>
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<td>7 Aqueous Cleaning of Medical Devices: Characterization of Ultrasound in the Cleaning Bath</td>
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<tr>
<td>PD Dr. Christiane Jung, KKS Ultraschall AG, CH</td>
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<td>8 iPROMEDAI: A National and European initiative to reduce the risk of implant associated infection</td>
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<tr>
<td>Dr. Reto Luginbuehl, RMS Foundation, CH</td>
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<td>9 Biologische Beurteilung nach ISO 10993-1: Vorgehen und Struktur</td>
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<td>Ursula Rösler, Markus, CH</td>
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<td>10 Experimental model for training of endoscopic transshenoidal pituitary adenoma resection</td>
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<td>Raphael Schmid, inspire AG, CH</td>
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<td>11 Nano-Enabled Smart Dressing For Wound Care</td>
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<td>Shruti Mankar, Indian Institute of Technology, India</td>
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<td>12 X-Ray Microscopy to determine the surface interaction between osteoplasts and a titanium surface in 3D</td>
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<tr>
<td>Dr. Antonio Casares, Carl Zeiss AG, CH</td>
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Registration fee
Members of the Medical Cluster, CHF 550.- *
Non-members, CHF 650.- *
Students (full time, unemployed), CHF 300.- *
Single day visit on either Monday or Tuesday, CHF 370.-
Dinner on Monday, incl. drinks, CHF 85.-
Tabletop exhibition incl. 1 entry, CHF 1’500.-

All prices excl. 8 % VAT.

The prices above include conference entry, materials and documentation and all meals during the meeting. Accommodation and dinner on Monday are not included in the prices.
*A discount of CHF 50.- will be applied to participants who register before 28th March 2014.

Registration
Please register until 23rd April 2014 at:
www.medical-cluster.ch/mte_participant

Registrations are accepted in the order in which they are received and will be confirmed immediately. The fee for registration cancellation up to 7 days before the event is CHF 50.-
No refund will be given for cancellations made less than 7 days before the event, though the registrant may transfer the ticket to another person to attend as a replacement.

Venue / Travel
Congress Centre Kursaal Interlaken
Strandbadstrasse 44
CH-3800 Interlaken
How to get there: www.congress-interlaken.ch

Hotel
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