

# Materials and Surface Technology for Implants

[MEET THE EXPERT] Implants is taking place for the twelfth time in 2022 and is the well-known event for the implant industry in Europe. The proven concept of this one-day conference is designed equally for manufacturers of implants, suppliers and service providers, as well as for universities and institutes. The program includes keynote lectures, short presentations, a tabletop exhibition and possibilities for discussions and networking. We invite you to register or to book a table at the exhibition.

#### Thursday, 8th September 2022

Venue FHNW Campus Muttenz Hofackerstrasse 30 4132 Muttenz / Switzerland

# Information and registration

www.rms-foundation.ch/meet

Main organizer



ting Research Consulting

## **Registration / Fees**

Please register until 30th August 2022 at: www.rms-foundation.ch/meet

Regular participant: 400 CHF + VAT

Student: 150 CHF + VAT full time students without employment

Exhibitor: CHF 1000 excl. VAT; includes the

registration fee for one person

The fee for registration cancellation up to 14 days before the event is CHF 50.- No refund will be given for cancellations made less than 14 days before the event, though the registrant may transfer the ticket to another person to attend as a replacement.

## **Tabletop Exhibition**

Spaces are available for exhibitors at the tabletop exhibition (CHF 1000 excl. VAT; includes the registration fee for one person). Tables can be booked using the form for conference registration.

## **Program Committee**

- Dr. Lukas Eschbach, RMS Foundation Lukas. Eschbach@rms-foundation.ch
- Dr. Simon Berner, Medicoat AG
- Francisco Faoro, Institut Straumann AG
- PD Dr. Christiane Jung, KKS Ultraschall AG
- Dr. Martin Stöckli, inspire AG
- Prof. Dr. Michael de Wild, FHNW

#### Administration

RMS Foundation, Bischmattstrasse 12, CH-2544 Bettlach, www.rms-foundation.ch Tel. +41 32 644 20 00 rms@rms-foundation.ch

**Sponsors** 















# Program, Thursday 8<sup>th</sup> September 2022

08:30	Registration / Welcome Coffee
09:00-09:15	Welcome message
	Session 1 Chairperson: Lukas Eschbach
09:15-09:45	Keynote 1: Prof. Dr. Konrad Wegener, Inst. f. Werkzeugmaschinen, ETHZ, CH: Al for Autonomy in Manufacturing
09:45-10:30	Flash Presentations Exhibitors and Posters (1 min. each)
10:30-11:00	Break (Exhibition and Poster)
	Session 2: Additive Manufacturing Chairperson: Michael de Wild
11:00-11:30	Keynote 2: PD Dr. med. et med. dent. Florian M. Thieringer, University Hospital Basel, CH: 3D-Printed PEEK implants: clinical needs & point of care production
11:30-11:50	Jürgen Wuttig, Sauber Technologies AG, Hinwil, CH: Microstructure of HIPped SLM-Ti-6AI-4V
11:50-12:10	Dr. Juliane Thielsch, Fraunhofer Institute for Machine Tools and Forming Technology IWU, Dresden, DE:  Implants with complex open-pored cellular structure additively manufactured by LPBF using ge-
	ometry adapted slicing functions
12:10-12:30	Dr. Dmitrii Komissarenko, EMPA, Dübendorf, CH: Additive manufacturing of zirconia canine elbow joint implants via digital light processing
12:30-13:50	Lunch (Exhibition and Poster)
	Session 3: Materials and Surfaces Chairperson: Simon Berner
13:50-14:10	Dr. Dieter Ulrich, Helbling Technik, Liebefeld-Bern, CH: Wireless Power Transfer for "Smart" Implants
14:10-14:30	Dr. Samuel Rey-Mermet, HES-SO Valais, Sion, CH: Additively manufactured Nitinol stent: surface finish and properties
14:30-14:50	Dr. Oksana Banakh, Haute Ecole Arc, La Chaux-de-Fonds, CH: Micro-arc anodized magnesium AZ31 alloy: towards application in veterinary implants
14:50-15:10	Harald Holeczek, Medicoat AG, Mägenwil, CH: Anti-bacterial coating for implant surfaces based on electrochemically-formed calcium hydroxide
15:10-15:40	Break (Exhibition and Poster)
	Session 4: Clinical and Regulatory Topics Chairperson: Christiane Jung
15:40-16:10	Keynote 3: PD Dr. med. Dr. phil. DiplIng. Andrej M. Nowakowski, Kantonsspital Baselland, CH: Challenges in revision total hip replacement and prosthetic joint infections
16:10-16:30	Christoph Sprecher, AO Research Institute, Davos, CH: Artificially induced peri-implant inflammation around mechanically loaded Zirconia and Titanium implants
16:30-16:50	Helen Yau, Koln 3D Switzerland, Geneva, CH: Clinical Applications of Patient-Specific Implants: How to Avoid Reinventing the Wheel
16:50-17:10	Sanja Savic, OFI Technologie & Innovation GmbH, Vienna, AT: Challenges and in-vitro solutions for the biocompatibility assessment with chemical characterization based on ISO 10993
17:10-17:30	Dr. Hans Schmotzer, SigmaRC GmbH, Cham, CH: In vitro testing of degradable magnesium implants – Avoiding the pitfalls
17:30-17:40	Roundup

### **Poster Session**

- Supercritical CO<sub>2</sub> machining of titanium a potential game changer Erik Poulsen, GF Machining Solutions, Biel, Switzerland
  - Direct Part Laser Marking in the Medtech Industry How to make UDI-Code Marking safe and compliant
- 2 Christian Söhner, FOBA Laser Marking + Engraving | ALLTEC Angewandte Laserlicht Technologie GmbH, Selmsdorf, Germany
- 3 In-silico comparison of topology-optimized acromion Levy type II implants Janick Zehnder, FHNW, Muttenz, Switzerland
- 4 Duplex technology to improve osteointegration of PEEK implants Sophie Farine, Haute Ecole Arc, La Chaux-de-Fonds, Switzerland
- Comparative study of particle loads in peri-implant soft tissue over osteosynthesis plates made of CFR-PEEK and titanium
  - Christoph Sprecher, AO Research Institute, Davos, Switzerland
- 6 In-silico implant validation: Establishing a reliable computational bone-implant model Michaela Maintz, FHNW, Muttenz, Switzerland
- In-vitro validation of operational strength of impact-loaded surgical instruments by means of an automated pendulum impact tester

  Matthias Brensing, IMA Materialforschung und Anwendungstechnik GmbH, Dresden, Germany