



**COST Action MP1301 - NEWGEN - New Generation Biomimetic and Customized
Implants for Bone Engineering**

NEWGEN - FINAL EVENT

**Patient-specific tissue engineering – An ambitious goal requiring a
„holistic“ approach**

28 - 29 August, 2017 - Vienna, Austria

PROGRAM

Monday August 28th, 2017

08:00 – 09:00 *Registration*

09:00– 09:15 *Welcome/Opening (S. Scheiner / F. Cambier)*

09:15 – 10:00 M^a Angeles Pérez (university of Zaragoza, ES): *“Multiscale simulation in bone tissue engineering: from micro to organ level”* (Keynote)

10:00 – 10:15 Aleksandra Vulovic (University of Kragujevac, RS): *“Finite element analysis of hip implant during gait cycle”*

10:15 – 10:30 Giulia Solimando (Reykjavik University and Landspítali University Hospital, IS): *“3D-coupled computational model of compression and perfusion to improve bioreactor design”*

10:30 – 11:00 *Coffee/Tea break*

11:00 – 11:15 Chaozong Liu (UCL Institute of Orthopaedic & Musculoskeletal Science, UK): *“Novel osteochondral scaffold for early intervention of osteoarthritis: a clinical veterinary case study”*

11:15 – 11:30 Yannis Missirlis (University of Patras, EL): *“Tissue morphogenesis and cell epigenetics: the role of biointerfacial mechanical signals”*

11:30 – 11:45 Aylin Sendemir Urkmez (Ege University, TK): *“A tissue engineered osteosarcoma model based on cancer stem cells”*

11:45 – 12:00 Maria Tomoaia-Cotisel (Babes-Bolyai University of Cluj-Napoca, RO): *“Turning scientific discoveries into health”*

- 12:00 – 12:15 Michaël Gasik (Aalto University Foundation, FI): *“True time-invariant properties of a biomaterial for precision orthopaedics”*
- 12:15 – 13:15 *Lunch + Group photo*
- 13:15 – 13:45 *Poster session*
- 13:45 – 14:30 Heinz Redl (Ludwig Boltzmann Institute for experimental and clinical Traumatology, AT): *“Bone and joint TERM in the Austrian Cluster for Tissue Regeneration”* (Keynote)
- 14:30 – 14:45 Elisa Boanini (University of Bologna, IT): *“Tailor-made multifunctionalized hydroxyapatites to prevent the drawbacks of systemic treatments”*
- 14:45 – 15:00 Daniel Bomze (Lithoz, AT): *“Additive manufacturing of bioresorbable bone replacements by lithography-based ceramic manufacturing”*
- 15:00 – 15:15 Heidi Declercq (University of Gent, BE): *“Towards biofabrication of complex and vascularized tissues via bioprinting”*
- 15:15 – 15:30 Anne Leriche (University of Valenciennes, FR): *“Influence of printed layer orientation on ceramics manufactured by stereolithography”*
- 15:30 – 16:00 *Coffee/Tea break*
- 16:00 – 16:15 Dan Lewitus (Shenkar College, IL): *“Astaxanthin-based polymers as for tissue engineering applications”*
- 16:15 – 16:30 Nabanita Saha (Tomas Bata University in Zlin, CZ): *“Biomaterials for bone tissue engineering – a technical approach”*
- 16:30 – 16:45 Alina Sionkowska (Nicolaus Copernicus University in Torun, PL): *“3D materials based on biopolymer blends for incorporation of inorganic particles”*
- 16:45 – 17:00 Elzbieta Pietrzykowska (Institute of High Pressure Physics, PL): *“Warm isostatic pressing technology for polymer-hydroxyapatite composites for orthopaedic implants”*
- 17:00 – 20:00 *Excursion to Lithoz*
- 20:00 – 24:00 *Workshop Dinner at Salmbräu*

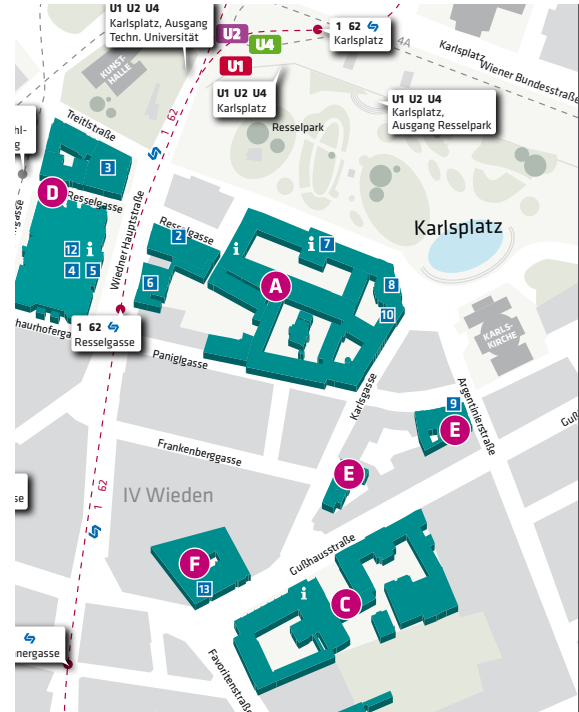
Tuesday August 29th, 2017

- 09:00 – 09:15 Nibedita Saha (Tomas Bata University in Zlin, CZ): *“Multistake holders initiative in bone tissue engineering – a management approach”*
- 09:15 – 09:30 Marta Alves (Instituto Superior Tecnico – CQE-CSSE, PT): *“Predicting the in vitro behaviour of resorbable Zn-based biomaterials”*

- 09:30 – 09:45 Angela Carvalho (Instituto de Engenharia Biomédica INEB/ i3S, PT): *“Biological response to femtosecond laser patterned Alumina toughened Zirconia: an evaluation of osteoblasts and Staphylococcus aureus”*
- 09:45 – 10:00 Albena Daskalova (Institute of Electronics, BG): *“Tailoring dynamics of osteoblast cells by fs laser surface texturing of polymers: The influence of surface morphology”*
- 10:00 – 10:30 *Coffee/Tea break*
- 10:30 – 11:00 Poster session
- 11:00 – 11:15 Piotr Piszczek (Nicolaus Copernicus University in Torun, PL): *“Personalized implants with innovative bioactive coatings”*
- 11:15 – 11:30 Stefan Razvan (University of Agricultural Science and Veterinary Medicine, RO): *“The antibacterial effect of glasses utilised in tissues engineering”*
- 11:30 – 11:45 Sari Vanhatupa (Adult Stem Cell Research, FI): *“Cellular impact of bioactive glasses and requirements for bone tissue engineering”*
- 11:45 – 12:00 Annalisa Chiocchetti (Università del Piemonte Orientale, IT): *“Recombinant osteopontin and its application”*
- 12:00 – 12:45 Summary of NEWGEN and conclusions
- 12:45 – 14:00 *Light Lunch*

Meeting Venue

The meeting will take place at Vienna University of Technology in the «Kontaktraum» which is located at Campus Gußhaus (building C, see map) at the 6th floor, Gußhausstraße 27-29, 1040 Vienna.



Your Way to the Meeting Venue

The meeting venue can be easily reached by public means of transport (underground: U1, U2, U4; tramways: D, J, 1, 2, 62, 65; buses: 4A, 59A):

From the Airport

- **by taxi** € 40.00
The ride takes approximately 20 minutes.
- **by bus** € 8.00 (one way), € 13.00 (return ticket)
Buses run at intervals of 20 min. in front of the arrivals' area of the airport: the ride to Schwedenplatz/Morzinplatz (connections to U1, U4) takes approx. 20 minutes.
- **by CAT (City Airport Train)** € 12.00 (one way), € 21.00 (return ticket) (reduced fares available if ticket is paid online in advance)
Trains run at intervals of 30 min. (xx:05 and xx:35); the non-stop ride to the City Air Terminal (Landstraße) (connections to U3, U4) takes approx. 16 minutes.
- **by train („Schnellbahn“)** € 4.40 (one way) Trains also run at intervals of 30 min.; the ride to the City Air Terminal (Landstraße) (connections to U3, U4) takes approx. 25 minutes.

From Railway Station “Wien Meidling / Philadelphiabrücke”

- Take underground U6 (direction Floridsdorf) to Längenfeldgasse. There switch to underground U4 (direction Heiligenstadt) to Karlsplatz.

From Railway Station “Wien Westbahnhof”

- Take underground U3 (direction Simmering) to Stephansplatz. There switch to underground U1 (direction Reumannplatz) to Karlsplatz.

From Railway Station “Wien Hauptbahnhof”

- Take underground U1 (direction Leopoldau) to Karlsplatz.

By Car

- The meeting venue is near the main transit route through Vienna. However, parking in the central areas of Vienna is limited to 1½ – 2 hours, and a parking voucher (available at tabacconists (,Trafik‘)) is required.

Excursion to Lithoz on Aug 28, 17:00

An excursion to Lithoz, a spin-off of TU Vienna, is scheduled for August 28, between 17:00 and 20:00. The excursion is free of charge. Participants will have to go with underground U4 until Margaretengürtel.

Workshop Dinner on Aug 28, 20:00

The workshop dinner will take place at Salmbräu, Rennweg 8.

