

THE FIRST DAY
13 JUNE

ScSB 2022 PROGRAMME

JUNE 13-15, 2022, JURMALA, LATVIA

12:00 - 13:00
CHECK-IN AND LUNCH

13:00
OPENING
Welcome address by
the ScSB 2022
conference Chair
Prof. Janis Locs



13:05 - 14:35
SCIENTIFIC SESSION A



13:05 - 13:35 Keynote presentation by Prof. Joao F. Mano /CICECO - Aveiro Institute of Materials, University of Aveiro, Portugal/

Natural-based polymers for bottom-up tissue engineering approaches.

13:35 - 13:50 Tiziano Serra /AO Research Institute Davos, Switzerland/

Sound assembly of dorsal root ganglion multicellular system.

13:50 - 14:05 Alise Svarca /Riga Technical University, Latvia/

Effect of calcium phosphate particle addition on the properties of hyaluronic acid hydrogels.

14:05 - 14:20 Annija Stepulane /Chalmers University of Technology, Sweden/

Biomedical elastomer for controlled drug delivery.

14:20 - 14:35 Helene Autefage /Karolinska Institutet, Sweden/

Adhesive phosphoserine-loaded calcium phosphate cements favour human mesenchymal stromal cell mineralisation in vitro.

14:35 - 15:00
Coffee
break

15:00 - 16:30
SCIENTIFIC SESSION B

15:00 - 15:30 Keynote presentation by Prof. Pamela Habibovic /Maastricht University, The Netherlands/

Calcium phosphate-based bone graft substitutes: improving mechanical properties without compromising bioactivity.

15:30 - 15:45 Ozgur Demir Oguz /Riga Technical University, Latvia/

Influence of bioactive glass particle size on setting time, mechanical properties and *in vitro* biocompatibility of calcium phosphate bone cements.

15:45 - 16:00 Aneta Zima /AGH University of Science and Technology, Poland/

Composite scaffolds based on β tricalcium phosphate and poly(3-hydroxybutyrate) for bone tissue regeneration.

16:00 - 16:15 Anna Galotta /University of Trento, Italy/

Low temperature synthesis and cold sintering of nano-hydroxyapatite for biomedical applications.

16:15 - 16:30 Ewelina Cichon /AGH University of Science and Technology, Poland/

How thermal degradation of the polymeric matrix influence the phase composition of bioceramic scaffolds?

16:30 - 17:30
FREE
TIME

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17:30 -18:00

**Presentation by
Prof. Mauro Alini**

/AO Research Institute Davos,
Switzerland/
NETWORKING CORNER

STARTS AT 18:00

Welcome banquet
& Poster Session

"FEEL, ENJOY & TASTE
LATVIA!"



Scandinavian Society
for Biomaterials



7:00 - 7:20

Perfect morning
exercises.

Beach workout.

8:45

Morning coffee & tea

9:00 - 9:30 Keynote presentation by Prof. Dr. Aldo R. Boccaccini
/Institute of Biomaterials, University of Erlangen-Nuremberg, Germany/
Bioactive glass meets biofabrication: new approaches for tissue engineering scaffolds.

9:30 - 9:45 Diego Torres Ulloa /University of Manchester, The United Kingdom/
Silk fibroin conduits made with aligned nanofibres for peripheral nerve regeneration.

9:45 - 10:00 Atif Abdul-Raouf /Uppsala University, Sweden/
A universal microfluidic platform for in vitro biomaterial evaluation.

10:00 - 10:15 Thomas Simmet /Ulm University, Germany/
Spatiotemporally modified alternating magnetic fields induce activation of voltage-gated sodium channels in skeletal muscle cells.

10:15 - 10:30 Vasiliki Tsikourkitoudi /Karolinska Institutet, Sweden/
Engineered calcium phosphate nanoparticles: a novel platform for drug delivery.

9:00 - 10:30
SCIENTIFIC SESSION C



10:30 - 11:00 Coffee
break

11:00 - 11:30 Keynote presentation by Tenure-track Assistant
Professor Shweta Agarwala /Department of Electrical and Computer Engineering,
Aarhus University, Denmark/

New frontiers in biodegradable materials and their application in healthcare.

11:30 - 11:45 Anna Blasi Romero /Uppsala University, Sweden/
On the introduction of reactive oxygen species-sensitive linkers onto cellulose nanofibrils: towards advanced wound healing solutions.

11:45 - 12:00 Janne Koivisto /Karolinska Institutet, Sweden/
Composite culture substrate for osteoblast differentiation made from beta-tricalcium phosphate and collagen.

12:00 - 12:15 Phillip Chivers /Karolinska Institutet, Sweden/
Hydrogel/nanoparticle composites as cheap and versatile biosensors.

12:15 - 12:30 Marika Mosina /Riga Technical University, Latvia/
Biocompatible gallium doped hydroxyapatite.

11:00 - 12:30
SCIENTIFIC SESSION D

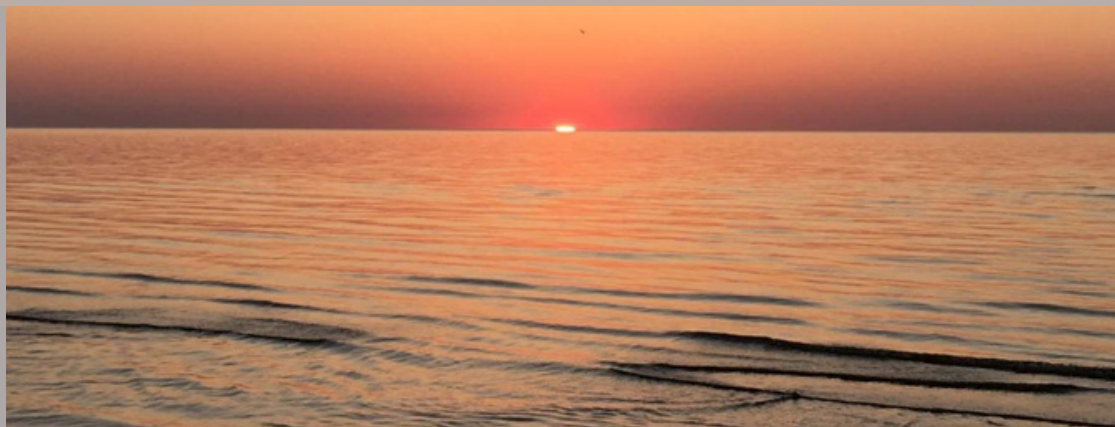
12:30 - 13:30 LUNCH

THE SECOND DAY
14 JUNE

ScSB 2022 PROGRAMME

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14:00 - 17:00
Outdoor activities &
relaxation.



17:00 - 18:30
SCIENTIFIC SESSION E

17:00- 17:30 Keynote presentation by Prof. Nicholas Dunne Dublin City University /Ireland/

The use of the RALA platform for regenerative therapies.

17:30 - 17:45 Miina Ojansivu /Karolinska Institutet, Sweden/

Formulation and characterization of novel lipid nanoparticles for the delivery of splice-switching oligonucleotide.

17:45 - 18:00 Antrea Spanou /Uppsala University, Sweden/

Antibacterial properties of additively manufactured PVDF-graphene composites.

18:00 - 18:15 Jill Ziesmer /Karolinska Institutet, Sweden/

Microneedles loaded with vancomycin for treatment of skin infections.

18:15 - 18:30 Alejandro Sosnik / Technion Israel Institute of Technology Technion

Research and Development Foundation Ltd, Israel/ Sono-responsive hybrid titanium oxide/polymer nanomaterials trigger apoptosis in cancer cells upon ultrasound irradiation.

18:30 - 19:15
INDUSTRY SESSION

Industry partner's pitch:

18:30 -18:45 microdrop TECHNOLOGIES

18:45 - 19:00 CELLINK

19:00 - 19:15 Biotecha Latvia

19:15 - 20:00
GENERAL ASSEMBLY

DINNER
STARTS AT 21:00

8:45

Morning coffee & tea



9:00 - 9:30 Keynote presentation by Prof. Havard J. Haugen

**/Department of Biomaterials, Institute for Clinical Dentistry, University of Oslo, Norway/
Intrinsically disordered peptides enhance regenerative capacities of bone composite xenografts.**

9:30 - 9:45 Alessondra Speidel /Karolinska Institutet, Sweden/

Spatial transcriptomic resolution of the tissue-material interface in wound healing.

9:45 - 10:00 Estrela Neto /i3S - Institute of investigation and innovation in health, Portugal/ Micropathological bone chip modelling the neurovascular unit for drug delivery systems testing.

10:00 - 10:15 Daria Zaytseva Zotova /University of Oslo, Norway/

Combination of live cell imaging and QCM-D to study cell-implant interactions.

9:00 - 10:30

SCIENTIFIC SESSION F

10:30 - 11:00
Coffee
break

11:00 - 11:15 Aydin Bordbar-Khiabani /Aalto University, Finland/

Comparative analysis of corrosion resistance between CP-Ti, Ti-6Al-4V, and novel Ti-Nb-Zr-Si alloy in phosphate buffered saline solution.

11:15 - 11:30 Ioannis Katsaros /Uppsala University, Sweden/

Oxidised silicon nitride for the inactivation of SARS-CoV-2.

11:30 - 11:45 Zoya Hadzhieva /University of Erlangen-Nuremberg, Germany/

Electrophoretic deposition of multi-layered antibacterial and bioactive coatings on chemically pre-treated titanium for biomedical applications.

11:45 - 12:00 Felix Geissel /Karolinska Institutet, Sweden/

Multifunctional nanostructured implant coatings with antibacterial properties and osseointegration potential.

12:00 - 12:15 Sviatlana Lamaka /Institute of Surface Science, Helmholtz-Zentrum Hereon, Germany/ Comparing the metal-electrolyte interface during in vitro degradation of Mg-, Zn- and Fe-alloys.

12:15 - 12:30 Julietta V. Rau /The Institute of Structure of Matter, Italy/

Novel bioactive materials for biomedical implants.

11:00 - 12:30

SCIENTIFIC SESSION G

12:30 - 13:00

CLOSING REMARKS

13:00 - 14:00

LUNCH

~ 14:00 - 14:30

TRANSPORT
TO RIX