

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
Janis Locs
and
Vice-Rector for Research
of Riga Technical University Talis Juhna

13:05 - 13:35 Keynote presentation by 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 Dagnija Loca /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*

13:05 - 14:35
SCIENTIFIC SESSION A

The Chairperson:
Janis Locs



14:35 - 15:00 Coffee
break

15:00 - 15:30 Keynote presentation by 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?

15:00 - 16:35
SCIENTIFIC SESSION B

The Chairperson:
Cecilia Persson

Be ready for
Group photo at 16:30

16:35 - 17:30 FREE
TIME

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17:30 - 18:00

**Presentation by
Mauro Alini**

/AO Research Institute Davos,
Switzerland/
NETWORKING CORNER
at Lobby Bar

STARTS AT 18:00

Welcome banquet
& Poster Session
"FEEL, ENJOY & TASTE
LATVIA!" at Lobby Bar



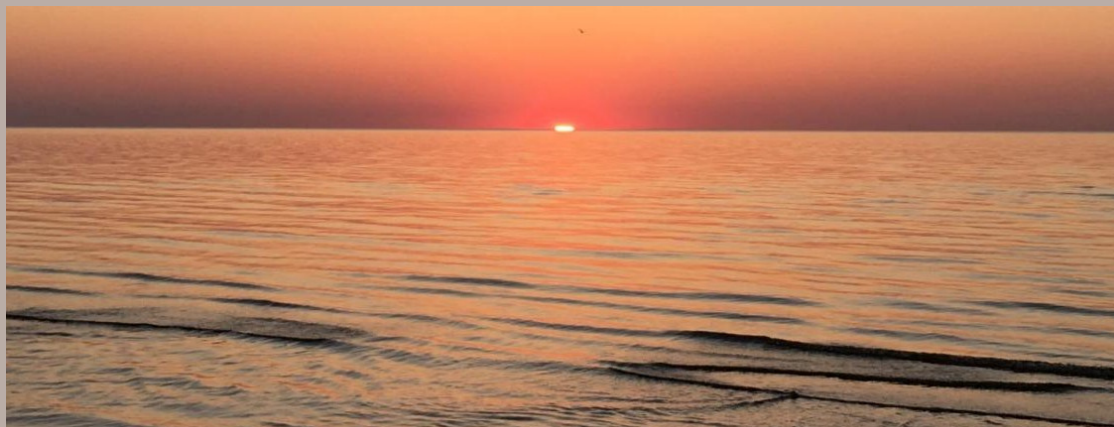
Scandinavian Society
for Biomaterials

6:50 - 7:50

Perfect morning
exercises.

Beach workout.

Meeting point at
Registration Desk



9:00 - 10:15

SCIENTIFIC SESSION C

The Chairperson:
Peter Uppstu



9:00 - 9:30 Keynote presentation by 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 Vasiliki Tsikourkitoudi /Karolinska Institutet, Sweden/

Engineered calcium phosphate nanoparticles: a novel platform for drug delivery

10:15 - 10:45 Coffee
break

10:45 - 12:15

SCIENTIFIC SESSION D

The Chairperson:
Mats Hulander

**10:45 - 11:15 Keynote presentation by Shweta Agarwala /Department of Electrical and
Computer Engineering, Aarhus University, Denmark/**

New frontiers in biodegradable materials and their application in healthcare

11:15 - 11:30 Anna Blasi Romero /Uppsala University, Sweden/

On the introduction of reactive oxygen species-sensitive linkers onto cellulose
nanofibrils: towards advanced wound healing solutions

11:30 - 11:45 Janne Koivisto /Karolinska Institutet, Sweden/

Composite culture substrate for osteoblast differentiation made from beta-tricalcium
phosphate and collagen

11:45 - 12:00 Phillip Chivers /Karolinska Institutet, Sweden/

Hydrogel/nanoparticle composites as cheap and versatile biosensors

12:00 - 12:15 Marika Mosina /Riga Technical University, Latvia/

Biocompatible gallium doped hydroxyapatite

12:15 - 13:15 LUNCH



THE SECOND DAY
14 JUNE

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13:40 - 16:20

Leisure activities:

Wellness SPA at Hotel OR
Jurmala City Cycling tour OR
Sand Castles Master Class.

Meeting Point at
the Registration Desk at 13:40

16:20 - 16:45

COFFEE &
SNACKS



16:45 - 18:15
SCIENTIFIC SESSION E

The Chairperson:
Gissur Orlygsson

**16:45- 17:15 Keynote presentation by Nicholas Dunne Dublin City University /Ireland/
The use of the RALA platform for regenerative therapies**

17:15 - 17:30 Miina Ojansivu /Karolinska Institutet, Sweden/

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

17:30 - 17:45 Antrea Spanou /Uppsala University, Sweden/

Antibacterial properties of additively manufactured PVDF-graphene composites.

17:45 - 18:00 Jill Ziesmer /Karolinska Institutet, Sweden/

Microneedles loaded with vancomycin for treatment of skin infections

18:00 - 18:15 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

18:15- 19:15
INDUSTRY SESSION

Industry partner's pitch:

18:15 - 18:30 microdrop TECHNOLOGIES

18:30 - 18:45 CELLINK

18:45 - 19:00 Brinter

19:15 - 19:50
GENERAL ASSEMBLY

DINNER
STARTS AT 21:00

Light House Jurmala Restaurant
The address:
Gulbenes Street 1a, Jurmala

Meeting Point at the Hotel Registration Desk at 20:30, the reserved bus leaves at 20:35. You can choose to go by the ScSB 2022 bus or have a nice walk with guide.

There will 2 busses organized back to hotel:

The first at 23:00

The second at 1:00



Scandinavian Society
for Biomaterials

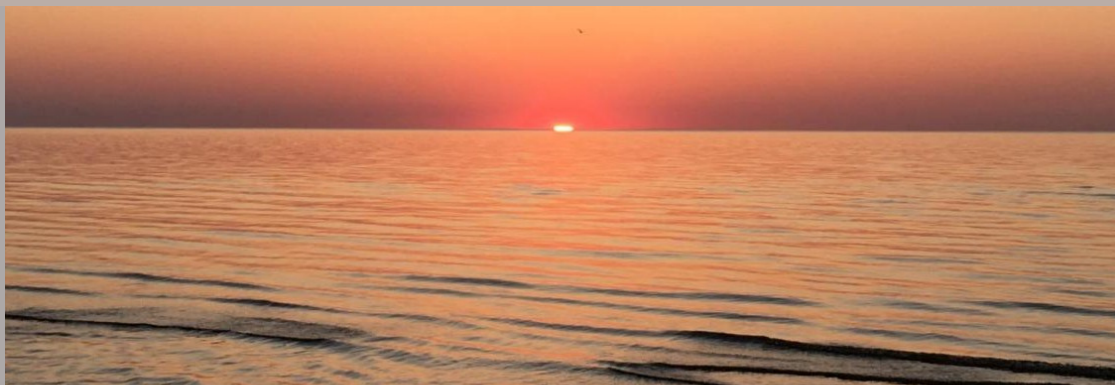
THE THIRD DAY
15 JUNE

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8:45

Morning coffee & tea



9:00 - 9:30 Keynote presentation by 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

The Chairperson:
Meriem Lamghari

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

The Chairperson:
Hanna Tiainen

12:30 - 13:00

CLOSING REMARKS

13:00 - 14:00

LUNCH

14:20

TRANSPORT
TO RIX

Meeting at
Registration Desk