



31st Conference of the European Society for Biomaterials ESB 2021

5 – 9 September 2021 / Porto, Portugal



Proposals for Symposia

Submission deadline: December 15th, 2020

Guideline:

- session duration: 90 minutes, from that:
 - **1 keynote speaker (30 minutes)** – your part
 - 4 speakers selected from submitted abstract from organising committee (15 minutes each)
- Upon acceptance of the symposia, the keynote speaker have to **submit an abstract** of the presentation **before March 15th, 2021** (using the online abstract submission system)

Proposer(s) (max. 2) (name, affiliation and e-mail address):

Proponent 1

Affiliation Zip

code / city

Country

Phone

e-mail

Proponent 2

Affiliation Zip

code / city

Country

Phone

e-mail



**FUTURING
BIOMATERIALS**



31st Conference of the European Society for Biomaterials **ESB 2021**



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Title of the symposium:

Topics (max 3) - selected from drop down menue

Please select only specific topics written after the bullets, if possible. You also find the complete topic list at the end of the template:

Topic 1

Topic 2

Topic 3

Chair and Co-Chair (name, affiliation and e-mail address – can be identical with proposer):

Chair Name

Affiliation

Zip code / city

Country

Phone

e-mail

Co-Chair Name

Affiliation

Zip code / city

Country

Phone

e-mail



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Title of the Keynote lecture (if already known):

Keynote Speaker (name, affiliation and e-mail address):

Keynote Name _____

Affiliation _____

Street _____

Zip code / city _____

Country _____

Phone _____

e-mail _____

Learning objectives (max. 50 words):

Proposed program (max. 50 words):

Intended audience (max. 20 words):

Relevance to the main topics of ESB (max. 20 words):



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Assumption of costs for the keynote speaker:

Please note: ESB or conference organiser do NOT pay for any costs of your keynote speakers. Conference registration of the keynote speaker is mandatory and a prerequisite for participation. Please confirm the assumption of costs for your keynote speaker:

- Yes, we pay the costs for conference registration of our keynote speaker and inform our keynote speaker that neither accommodation nor travel costs will be covered by the ESB or congress organisation of the ESB 2021 conference.
Invoice address for registration fee (registration after acceptance through organiser):

Institution / company _____

Affiliation _____

Street _____

Zip code /city _____

Country _____

Phone _____

e-mail _____

- Keynote Speakers will pay registration fees by themselves and confirm that neither accommodation nor travel costs will be covered by the ESB or conference organisation of the ESB 2021 conference. Registration will be made online from speakers themselves after acceptance. We herewith confirm to inform our keynote speaker accordingly.

Date: _____ Signature: _____



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ESB 2021: topic list for symposia and abstract submission

Every abstract has to be assigned to 3 topics from the list below, selected in descending order concerning relevance and fit. If possible, select only specific topics (written in non-bold letters with bullets). Only when those do not fit the topic headings (in bold) can be chosen as alternative.

Additive manufacturing (AM)

- 3D and 4D (bio)printing
- Biofabrication
- Bioinks
- Electrospinning
- Laser-based AM technologies
- Novel AM technologies and tools
- Powder printing

Biomaterials characterization

- Biocompatibility
- Biodegradation
- Hemocompatibility
- Imaging
- *In silico* testing
- *In vitro* testing
- *In vivo* testing
- Mechanical characterisation
- Modelling of material properties

Biomaterials development

- Biodegradable
- Carbon
- Ceramics
- Composites
- Decellularized extracellular matrix
- Hydrogels
- Immunomodulatory
- Mechanomodulatory
- Metals
- Natural biomaterials
- Nucleic acid-based
- Peptide-based
- Polymers
- Porous
- Self-assembled
- Stimuli-responsive (smart)
- Textile and fibre-based

Biomaterials for specific medical applications

- Adipose tissue
- Antibacterial
- Antifungal
- Antiviral
- Biosensors
- Biomaterials for electrical stimulation
- Biomaterials for internet of things
- Biomaterials for magnetic stimulation
- Bladder and urogenital tissues
- Bone tissue
- Cartilage and osteochondral tissue
- Cancer
- Cardiovascular
- Dental and maxillofacial
- Diagnostics
- Drug delivery
- Gastrointestinal tissue
- Gene therapy
- Immunomodulatory therapies
- Intervertebral disc
- Kidney, liver and pancreas
- Lung, bronchia and trachea
- Ophthalmology
- Neural tissue (brain, peripheral nerves and spinal cord)
- Skin
- Tendon and ligament
- Tissue adhesives and anti-adhesives
- Wound healing

Biomaterials for tissue engineering (TE)

- 3D scaffolds
- Bioreactors, including physical stimulation of TE constructs
- Innervation
- Vascularisation

Cell-biomaterial interactions

- Bacteria-biomaterial interactions
- Biofilm studies
- Cell adhesion, migration, proliferation and differentiation
- Cell-particle interactions
- Fungus-biomaterial interactions
- Protein-biomaterial interactions
- Mechanosensing
- Stem cells and cell differentiation



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Clinical applications of biomaterials

- Biomaterial-related clinical problems
- Clinical trials
- Precision medicine

Commercialisation of biomaterials and biomaterial-based devices

- Intellectual property regulation
- Good manufacturing practices
- Translational research

Key enabling technologies

- Artificial intelligence
- Lab-on-a-chip
- Robotics

Legal, ethical and regulatory aspects

Nanobiomaterials

- Nanoparticles
- Protein corona

Surface modifications

- Coatings
- Micro- and nanopatterning
- Self-assembled monolayers
- Surface characterisation

Tissue and organ models

- 3D cell culture
- Cancer models
- Microfluidics
- Organ-on-a-chip
- Organoids and spheroids
- Organotypic cultures

Virus-biomaterial interactions

- SARS-COV-2
- Other viruses (e.g. HIV)