DETAILED PROGRAM

35th Annual Conference of the European Society for Biomaterials

50th Anniversary of ESB

September 7 - 11
Antwerp, Belgium

ESB 2026


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Veerle Bloemen

Veerle Bloemen is a professor in Biofabrication and Tissue Engineering at the Department of Materials Engineering, KU Leuven (Belgium). Her research aims to integrate biofabrication technologies in cell-based strategies for various biomedical applications. More specifically, her team explores the use of bioprinting and melt electrowriting for e.g. the development of implants for bone and cartilage regeneration, tendon repair and wound healing. She is a co-founder and current president of the Belgian Society for Tissue Engineering (BSTE), an interuniversity initiative that brings together (young) scientists and actors in the private sector working in the field of biomaterials and tissue engineering in Belgium.

Liesbet Geris

Liesbet Geris is professor in Biomechanics and Computational Tissue Engineering at the University of Liège and KU Leuven (Belgium). Her research focuses on the development of multi-scale and multi-physics in silico and in vitro models. Together with her team and their clinical and industrial collaborators, she uses these models to investigate the etiology of skeletal pathologies, design cell-based treatments and optimize their manufacturing processes. She has received 1 ERC starting grant and 2 ERC consolidator grants to finance her research and has won a number of young investigator and research awards. She was the co-chair of, amongst others, TERMIS world 2021 and ESBiomech2023.

She is the executive director of the VPH Institute, advocating the use of in silico modeling in healthcare through liaising with the clinical community, European Commission and Parliament, regulatory agencies and patients. She is the coordinator of the EDITH CSA, generating the roadmap for the Virtual Human Twin. Besides her research work, she is often invited to give public lectures on the challenges of interdisciplinarity in research, women in academia and digital healthcare.

Sandra Van Vlierberghe

Sandra Van Vlierberghe is professor in the Polymer Chemistry & Biomaterials Group (Ghent University, Belgium), which is affiliated to the Centre of Macromolecular Chemistry (CMaC) and the Ghent Advanced Therapies and Tissue Engineering (GATE) platform. Her research is centered around the convergence of polymers and light serving biomedical applications. Her research team focuses on the synthesis and characterization of photo-crosslinkable (bio)polymers and their processing capabilities using light- and deposition-based 3D-printing in the fields of tissue engineering, drug delivery devices and organ-on-chip technologies. She is co-founder and scientific advisor of spin-off companies BIO INX and 4Tissue.

Welcome Message

Dear colleagues, dear friends,

It is our great pleasure to welcome you to Antwerp for the 35th Annual Conference of the European Society for Biomaterials (ESB 2026).

This year's conference is particularly special as we come together to celebrate the 50th anniversary of the European Society for Biomaterials. For half a century, the ESB has brought together scientists, clinicians, engineers, industry representatives, and students with a shared ambition to advance biomaterials science and its contribution to healthcare. What began 50 years ago as a pioneering European community has grown into a vibrant and internationally connected society, shaped by generations of researchers and by the continuous evolution of our field. ESB 2026 therefore offers not only an opportunity to share the latest scientific advances, but also to reflect on 50 years of discovery, collaboration, innovation, and friendship, while looking ahead to the challenges and opportunities that will define the next decades of biomaterials research. We are delighted to celebrate this milestone together with more than 1350 participants representing 49 countries, illustrating the truly international reach of the ESB community today.

Over the coming days, ESB 2026 will offer a rich and diverse scientific programme that showcases the breadth, quality, and continued evolution of our field. We are honoured to welcome 106 keynote speakers, who will share their perspectives on some of the most exciting developments and future directions in biomaterials science. Alongside these keynote lectures, the programme features 513 oral presentations and 670 poster presentations, providing a platform for both established researchers and emerging scientists to present their latest work, exchange ideas, and initiate new discussions.

Biomaterials science has always thrived at the interface between disciplines. Progress emerges when chemists, physicists, biologists, engineers, clinicians, and materials scientists look beyond the boundaries of their own fields and work together towards a common goal: developing better solutions to restore, replace, regenerate, and understand the human body. ESB 2026 aims to provide exactly this environment - a place where fundamental science meets clinical need, where established expertise meets new ideas, and where scientific discussions can develop into new collaborations.

With 1380 scientific contributions presented throughout the conference, the programme reflects the extraordinary diversity of contemporary biomaterials research. From fundamental material design and advanced characterization to tissue engineering, regenerative medicine, biofabrication, drug delivery, medical devices, and clinical translation, we hope that ESB 2026 will provide opportunities to discover new approaches, challenge existing perspectives, and explore where our field is heading next.

At the same time, a conference is about much more than its scientific programme. Some of the most valuable ideas and collaborations begin in conversations between sessions, during a poster discussion, over coffee, or around a dinner table. We therefore encourage you to make full use of these days to reconnect with colleagues, meet new people, exchange ideas, challenge one another scientifically, and perhaps initiate collaborations that will continue long after ESB 2026 has ended.

We are particularly pleased to welcome the many young scientists and students joining us in Antwerp. They represent the future of our community, and we hope that ESB 2026 will offer them not only scientific inspiration, but also opportunities to build networks, find mentors and collaborators, and become an active part of the European biomaterials community.

We are also delighted to welcome you at a truly unique conference venue, Room with a Zoo, located in the heart of Antwerp and directly connected to the historic Antwerp Zoo. Throughout the congress week, ESB 2026 delegates will have the opportunity to visit the zoo, offering an unusual and inspiring setting to take a break from the scientific programme, continue conversations with colleagues, or simply enjoy one of Antwerp's most iconic attractions. We hope this exceptional venue will contribute

to making the 50th anniversary edition of our society especially memorable.
And, of course, we hope you will find some time to experience Antwerp itself. With its rich history, impressive architecture, vibrant cultural scene, fashion, diamonds and gastronomy, the city provides a wonderful setting in which to meet, exchange ideas, celebrate science, and mark this important milestone together.

Organising a conference of this scale is only possible through the commitment of many people. We would therefore like to express our sincere gratitude to the members of the organising and scientific committees, the ESB Council, our invited speakers and session chairs, our sponsors and exhibitors, the conference secretariat, our volunteers, and everyone who has contributed their time and enthusiasm to making ESB 2026 possible. Above all, we thank you, our participants, for bringing your science, your ideas, your curiosity, and your energy to Antwerp.

As we celebrate 50 years of the European Society for Biomaterials, we hope ESB 2026 will honour the scientific achievements, collaborations, and friendships that have shaped our community while creating the connections and ideas that will carry it forward.

Welcome to Antwerp. Welcome to ESB 2026. Welcome to 50 years of the European Society for Biomaterials.

We wish you an inspiring, engaging, and truly memorable conference!

Veerle Bloemen
Liesbeth Geris
Sandra Van Vlierberghe

Chairs, ESB 2026

Dear colleagues and friends,

It is a great pleasure to welcome you to Antwerp for the 35th Annual Conference of the European Society for Biomaterials, ESB 2026.

This meeting carries particular significance. Fifty years ago, a group of colleagues came together in Bologna with a clear conviction: Europe needed a scientific society through which those working on biomaterials could meet, exchange knowledge, and build a field capable of improving patient care. From that beginning in 1976, the European Society for Biomaterials has grown into an open, international community linking scientists, engineers, clinicians, industry colleagues and students across disciplines, countries and generations.

A fiftieth anniversary is an opportunity to recognise the people who have built this community: the founders who gave the Society its direction; the many members who have sustained it through their service, scholarship and generosity; and the emerging researchers whose questions, ideas and ambition will determine what comes next. The field has changed profoundly over five decades, but the Society's purpose remains recognisable: to bring rigorous science into dialogue with clinical need and societal benefit.

Antwerp is a fitting setting for this occasion. A city shaped by exchange, craftsmanship, enterprise and international connection, it provides an appropriate home for a meeting founded on the movement of ideas between people and disciplines. At Room with a Zoo, we gather in a setting that is distinctive, welcoming and close to the life of the city - an environment well suited to conversation as well as scientific debate.

The programme offers an opportunity to consider the full reach of contemporary biomaterials research: from fundamental understanding of materials and biological response to biofabrication, regenerative medicine, drug delivery, medical devices and translation into practice. It also asks us to look beyond individual advances. The most consequential progress in our field depends on careful collaboration: between laboratory and clinic, established teams and new investigators, universities and industry, and across national and disciplinary boundaries.

I encourage you to use the week well. Attend work that lies beyond your immediate area and discipline. Speak with someone whose approach differs from your own. Ask precise questions, share unfinished ideas, and make time for the discussions that do not appear in the programme. Conferences are remembered not only for what is presented from the podium or poster, but for the partnerships and directions that begin in the spaces between sessions.

The ESB has always valued the participation of early-career researchers. Their presence is essential to the intellectual health and continuity of our Society. I hope that those joining us at an earlier stage of their careers will find in the ESB a community that is generous with its expertise, serious about scientific standards, and open to new thinking and fresh ideas, and eager to foster new collaborations and friendships.

On behalf of the ESB Council, I thank Professors Veerle Bloemen, Liesbet Geris and Sandra Van Vlierberghe, together with their organising and scientific committees, for the work and care invested in bringing this anniversary meeting to Antwerp. I also thank our speakers, session chairs, sponsors, exhibitors, volunteers and every participant whose contribution makes this gathering possible.

As we mark fifty years of the European Society for Biomaterials, let us celebrate the work that has brought us here and renew our responsibility to shape the decades ahead with rigour, imagination and a clear commitment to improving lives.

I wish you a stimulating and memorable ESB 2026.

With warmest regards,

Nicholas Dunne
President
European Society for Biomaterials

Topics

It is one of our main goals to discuss frontline developments in the rapidly expanding Biomaterials field and to encourage both senior scientists from academia and industry along with young researchers and students to get involved in the field and to attend this conference. The high level of the scientific program will be determined by a fine selection of international plenary lectures and invited speakers, while highly motivated young researchers will also have the opportunity to present their latest research findings through an oral or a poster presentation. For the plenary lectures, we will ensure a good mix with respect to gender, geography, age, discipline, translational character (basic & applied) and application domain. Regulatory workshops and a workshop focusing on acquiring soft skills including scientific communication will be organized in collaboration with the Young Scientist Forum (YSF) on Monday afternoon. The event will focus on key topics for the development and manufacturing of Biomaterials, by discussing biomaterial-related research in different in vitro, in vivo and in silico settings in order to be able to better understand the underlying pathways that direct de novo tissue formation in a compromised environment and which determine medical device performance.

The regular sessions will be assembled featuring, among others, the following topics:

- Biomaterials across Tissues and Diseases
- Medical device design and engineering
- Enabling Technologies for improved biomaterial research and smoother translation
- Biomaterial-driven tissue regeneration and aging
- Biomaterial responses in a pathological environment
- Bio-inspired and biomimetic materials
- Additive manufacturing for regenerative medicine purposes
- Biomaterials translated to the clinic (with attention for regulatory aspects)
- Biomaterials in industry: How to get there and how to stay there
- Sustainability in biomaterials' research
- Biomaterials and AI
- Enabling technologies
- In silico tools for biomaterial design and optimisation
- Biomaterials as key component of microphysiological systems

Besides the regular program, input will be requested from the ESB community through a Call for Symposia. The program will further include YSF activities, award sessions, industrial workshops, debates, etc. Being organized by members of the Belgian Society for Tissue Engineering, we will also provide a platform for the biomaterial-related national chapters as they will be actively invited to organize symposia and exchange best practices with their colleagues from other national chapters. Members from different countries will also be able to pave the way towards strengthening the ties for the future. We are convinced that this meeting will inspire and will bring new ideas and collaborations providing fertile ground for the next generation of biomaterial researchers.

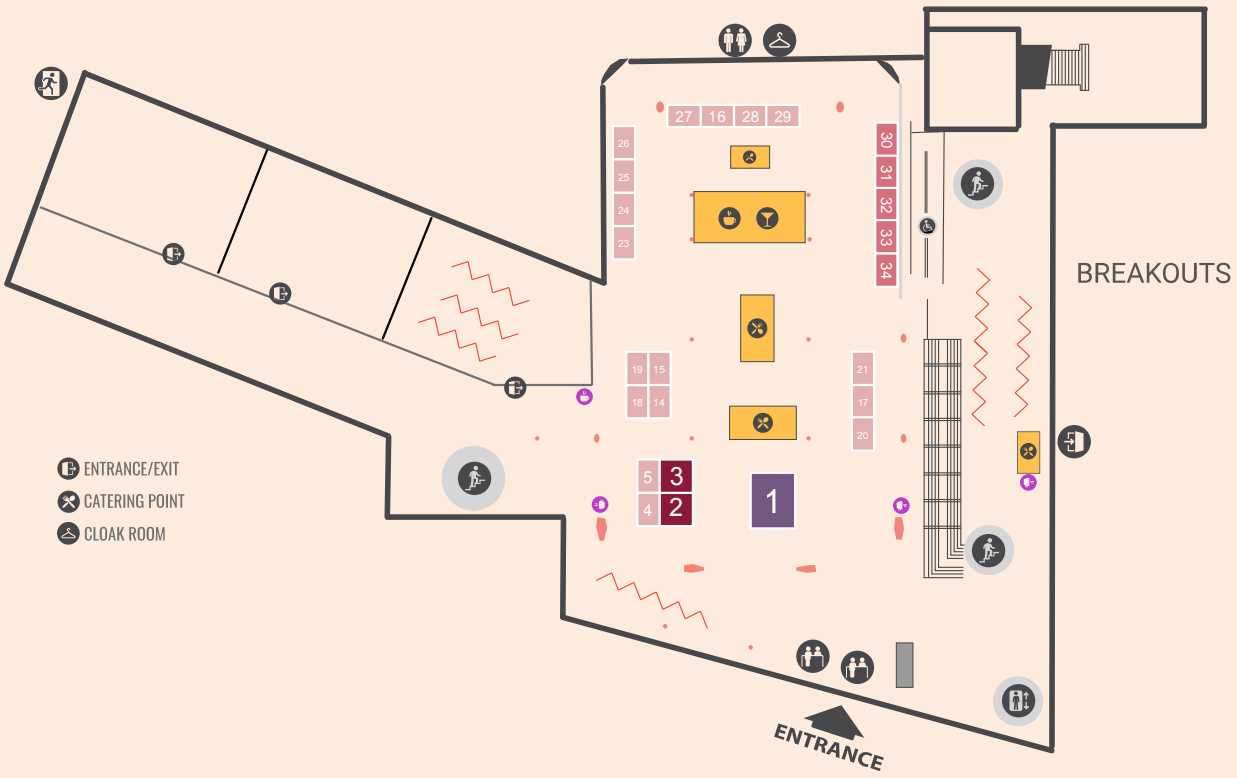
Congress Venue

A Room with a ZOO
Koningin Astridplein 20
2018 Antwerp

ESB 2026 is taking place at FMCCA, also known as “A Room with a Zoo”.

A Room with a ZOO is located in the heart of Antwerp, just a ten-minute walk from the historic city center.
Its proximity to Antwerp Central Station ensures easy accessibility by public transport, with train, tram, and bus stops within walking distance. Additionally, several car parks are available nearby.

Exhibition Floorplan



Booths

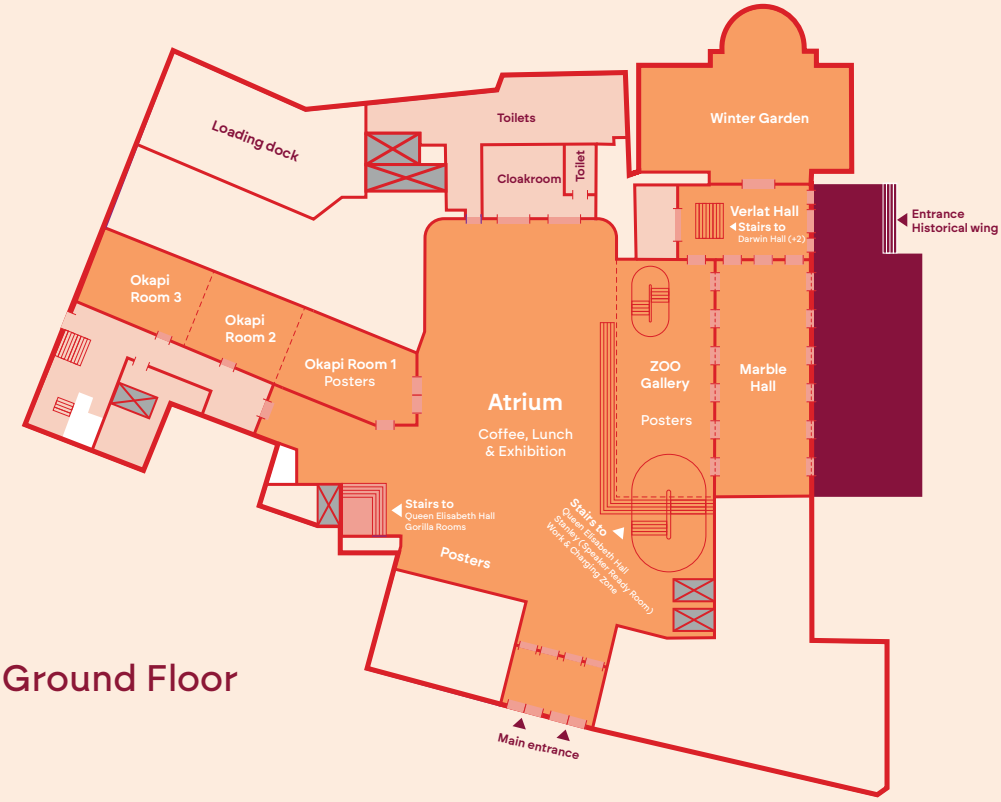
1 ESB Booth
2 Rousselot
3 BIO INX
4 Fluidnatek
5 Dunn Labortechnik
14 GeSiM
15 MeltPrep
16 CSBM
17 Poietis Biosystems
18 Future Lab Innovations & CELLINK
19 Springer Nature
20 PBC Biomed
21 ZEISS
23 RegMed XB
24 Vet ex machina LTD
25 Readily3D
26 Frontiers in Bioengineering and Biotechnology
27 Carl ROTH
28 NETZSCH & RevoBITs
29 The Royal Society Publishing
30 B-SMARTT
31 AdBioInk Biosystem Technology
32 xolo
33 Biomomentum
34 TissueLabs

Program at a glance

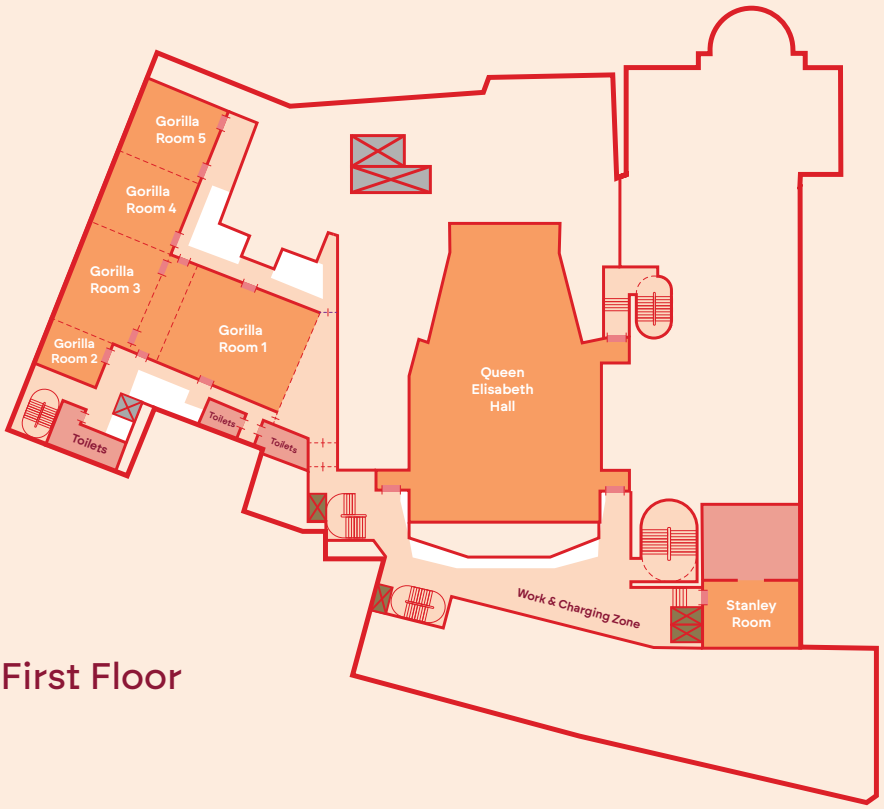
ESB 2026

	MONDAY 07	TUESDAY 08	WEDNESDAY 09	THURSDAY 10	FRIDAY 11
08:00 09:00		Parallel Sessions	Parallel Sessions	Parallel Sessions	
09:00 10:00					Parallel Sessions
10:00 11:00		Coffee Break George Winter award	Coffee Break International Award	Coffee Break Jean Leray Award	Coffee Break
11:00 12:00		Parallel Sessions	Parallel Sessions	Parallel Sessions	Parallel Sessions
12:00 13:00		Break / Lunch Poster Sessions (13:00-14:00)	Break / Lunch Poster Sessions (13:00-14:00)	Break / Lunch Poster Sessions (13:00-14:00)	Closing Ceremony
13:00 14:00					Take away Lunch
14:00 15:00	YSF workshop	Parallel Sessions	Parallel Sessions	General Assembly	
15:00 16:00		Klaas De Groot Award	Panel / Debate	Parallel Sessions	
16:00 17:00		Coffee Break YSF General Assembly	Coffee Break	Coffee Break	
17:00 18:00		Parallel Sessions	Parallel Sessions	Parallel Sessions	
18:00 19:00	Plenary Lecture John A. Rogers (Queen Elisabeth Hall)				
19:00 20:00	Opening Ceremony		Social Event YSF's Night Out	Social Event Gala Dinner	
20:00 ...	Welcome Reception				

Overview Meeting Rooms



0 Ground Floor



+1 First Floor

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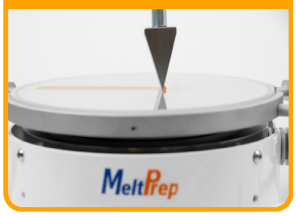
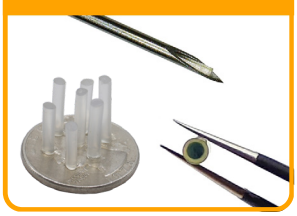
Shear Milligram Mixing



Material Characterization

Implant Prototyping



Complex Geometries

MeltPrep Slider - Easy Thermoanalysis in Minutes

Meeting Venue

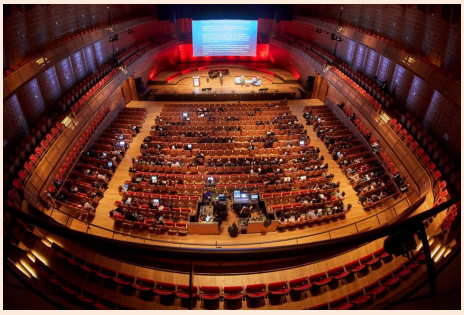
Flanders Meeting and Convention Center Antwerp – “A Room with a Zoo”

Flanders Meeting and Convention Center Antwerp goes beyond space. A venue with a legacy of connection, nature conservation and sustainability.

Every cent contributes to nature conservation

“A Room with a ZOO” is part of the Antwerp ZOO Society. Profits of our congresses and events immediately support our efforts on cherishing nature through animal welfare, education and awareness building. The Antwerp ZOO Society plays a leading role on the world stage in terms of scientific research and conservation.

This unique partnership between meeting and conservation ties into the desire of the meeting industry to become more sustainable.



Access to ZOO Antwerp during ESB

As an ESB participant, you will enjoy exclusive access to ZOO Antwerp upon presentation of your badge. This access is valid from 07 to 11 September.

Make the most of this unique opportunity to combine the congress with a visit to the zoo!

A Room with a ZOO, Koningin Astridplein 20-26, 2018 Antwerp.

ESB App

Download the "ESB" app in the App Store or Google Play Store

Google Play App Store

Registration Desk - Opening Hours

Monday	16:00 - 21:00
Tuesday	07:30 - 19:15
Wednesday	07:30 - 19:15
Thursday	07:30 - 19:15
Friday	07:30 - 13:00

Live Music on the Zoo Terrace

After the conference sessions, participants are invited to unwind on the Zoo Terrace and enjoy live music each evening. Performances will continue until 22:00, providing the perfect opportunity to network, reconnect with colleagues, and experience the unique atmosphere of Antwerp Zoo in a relaxed setting.

Monday, 7th of September

14:00 16:00	**YSF Workshop** **Round table AI Tools in Scientific Research** Gerry Koons Maria Southall Sandra Pina Matteo Santin **Round table AI Tools in Scientific Research** Miguel Castilho Marcy Zenobi-Wong Kyriakos Spanoudes Arpita Roychoudhury
16:00	**Break**
17:45 18:45	**Plenary lecture (Queen Elisabeth Hall)** John A. Rogers
18:45 19:15	**Opening Remarks (Queen Elisabeth Hall)**
19:30 21:30	**Welcome Reception (Marble Hall & Atrium)**


SAVE
THE DATE
36th Annual Conference of the European Society for Biomaterials
6–10 September 2027
Uppsala, Sweden
ESB 2027
www.esb2027.org

Tuesday, 8th of September

Queen Elisabeth Hall

08:15 09:45	**Biomaterials for Bone and Cartilage Regeneration** João Mano & Anna Puiggali-Jou (co-chair)
	Engineering cartilage with structured light Marcy Zenobi-Wong
	Human protein-based ultrathin membranes toward the development of self-assembled cellaggregates for osteo differentiation Manuel Pires Santos
	Biomimetic modification of hyaluronic acid – adipic acid hydrazide hydrogels with chondroitin sulfate and collagen Kamila Walczak
	Microfluidic Wet-Spinning of Aligned Collagen–GAG Fibers for Cartilage Repair Kim Nora Wagner
	Mechanically induced bactericidal effects of nanostructured hydroxyapatite and titanium surfaces under static and dynamic conditions for bone tissue engineering Arezoo Ashrafnia Menarbazari
	Mineralized Himalayan Sheep Wool Based Composite 3D Printed Scaffolds with Curcumin for Osteosarcoma Management Himanshi Diwan
	A Barnacle-Inspired Mineralization Peptide for Dentin Occlusion and Bone Repair Miryang Klink
09:45	**Coffee break & Poster Session**
10:15 11:00	**George Winter Award (Queen Elisabeth Hall)** Manuel Salmeron-Sanchez (co-chaired by Cristina Barrias & Nicholas Dunne)
11:00 12:30	**Dynamic Supramolecular Biomaterials for Regenerative Medicine** Julieta Paez (chair) & Dominik Schauenburg (co-chair)
	Supramolecular design of dynamic biomaterials to instruct cell functions João Borges
	Biomaterial-engineered in vitro platforms to investigate the impact of environmental pollutants on respiratory and cardiovascular tissues Gianluca Ciardelli
	Dynamic Nucleic Acid Bioengineered 3D Scaffolds for Cell Culture Applications Neha Thakur
	Multifunctional β-Cyclodextrin Polymer Platform for Drug Delivery and Supramolecular Hydrogels in Cartilage Repair Shima Kalantarifard

Tuesday, 8th of September

Queen Elisabeth Hall

11:00 12:30	**Supramolecular Glycopeptide-based Nanoparticles for the Controlled Delivery of Perinatal Stem Cells' Secretome for Cardiac Repair** Annalisa Perioli
	Engineered Supramolecular Hydrogels with Tunable Self-Healing for Embedded Bioprinting Applications Paola Grillo Coppola
	Optimizing viscosity and dynamicity of alginate-based fibers to enhance bovine muscle generation for cultivated meat Sergio Spaans
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:30	**Biomaterials & Bioprinting Powering the Next Generation of Organs-on-Chip (In collaboration with the International MPS Society) MPSS)** Gianluca Ciardelli & Ana Mora Boza (co-chair)
	From Biomaterials to Living Systems: Biofabrication Strategies Enabling Advanced Microphysiological Systems Lorenzo Moroni
	Engineering a modular, perfusable bone-on-chip system by leveraging granular hydrogel design Farhad Sanaei
	A Multicompartment Vascularized Melanoma-on-a-Chip: Recapitulating the Tumour Microenvironment and Metastatic Potential Carlotta Mattioda
	Alveoleye – an alveoli-on-a-chip model to recapitulate lung microarchitecture Federico Farina
	Microfluidic Neurovascular Microenvironments for High Throughput Benchmarking of Emerging Nanotherapies Carlotta Mattioda
	A versatile 3D printed platform for the assembly and perfusion of breast tumor cell clusters Simon Sayer
	Engineering a bioactive and mechanically tunable vein-on-a-chip for real-time investigation of unexplained thrombosis Soumaïla Cisse
15:30 16:15	**Klaas De Groot Award (Queen Elisabeth Hall)** Abhay Pandit (chaired by Matteo D'Este) and Nicholas Dunne (co-chair)
16:15	**Coffee break & Poster Session**
16:45 17:30	**YSF General Assembly (Queen Elisabeth Hall)**

Tuesday, 8th of September

Queen Elisabeth Hall

17:30 19:00	**Biofabrication using photoactivated materials** Christopher Moser & Viola Sgarminato (co-chair)
	Advances in Tomographic Volumetric Additive Manufacturing for Organ-on-Chips Riccardo Rizzo
	Peptide-encapsulated 3D bioprintable hydrogels for bone tissue engineering: in-vitro evaluations Emine Durukan
	Macroporous Mineralizing Photoresins for Bone Tissue Engineering Isabel Hui
	Methacrylated Pluronic (PluMA) hydrogels for high-resolution 3D printing and biofabrication Joanna Babilotte
	Light-Activated Hydrogel Systems for Engineering Perfusable Renal Models Federico Sinnona
	Ultrafast volumetric bioprinting enables precise morphological control of perfusable stem cell-derived microphysiological endocrine pancreatic units Charlotte Brice
	An Immunocompetent Bioprinted Dextran-Based Skin Model for Studying Chronic Wound Inflammation Rebecca Downs-Ford
	Light-Activated Mechanostimulation of hiPSC-Derived Cardiomyocyte Microtissues using a 4D Printed Hybrid scaffold Laura Valenzuela Segura

Tuesday, 8th of September

Okapi Room 2

08:15 09:45	**3D printing photopolymerization at micro- and nanoscale design of devices and materials for bioapplications** Emanuela Jacchetti & Silvia Santoni
	Two-photon 3D-printed Modular Microfluidic Platform for Controlled Formulation of Targeted Nanogels **Emanuele Mauri**
	Combining 2-photon-polymerization with microfluidic on-Chip setups for complex multicompartment scaffolds as osteochondral tissue model Benjamin Kruppke
	A 3D microstuctured scaffold reveals the mechanobiology of cancer Multi-Drug Resistance Giovanni Buccioli
	Thermoresponsive granular bioinks based on Elastin-Like Recombinamers María Puertas-Bartolomé
	Evaluation of scaffold-induced immune response in chicken embryo chorioallantoic membrane studies Cristina Cortesi
	Scaling up microscale architectures for 2PP bioprinting applications Silvia Santoni
	Design of Bio-Based Photocurable Non-Isocyanate Polyurethanes for Two-Photon Polymerization 3D Printing of Biocompatible Microstructures Salvatore Luigi Carlucci
	Bioprinted silk fibroin-based auxetic metamaterials as platform for modeling cardiovascular diseases Eugenia Spessot
09:45	**Coffee break & Poster Session**
10:15 11:00	**George Winter Award (Queen Elisabeth Hall)** Manuel Salmeron-Sanchez (co-chaired by Cristina Barrias & Nicholas Dunne)
11:00 12:30	**4D Printing and Smart Biomaterials for Regenerative Medicine** Maria Grazia Raucci & Thomas Dunne (co-chair)
	4D Printing across Scales: Design, Mechanics, and Shape Morphing Mohammad Mirzaali
	From biodegradation to "smart" hydrogels: graphene derivatives for biomedical applications Cristina Martin Jimenez
	Optimizing NaOH treatment of 4D printed PCL networks: trade-off between biological, mechanical, and shape-memory performance Lorenzo Bonetti
	NeoNectin-functionalized 3D-printed polymeric stents promote endothelialisation and reduce thrombogenicity Mariola Cano Morenilla

Tuesday, 8th of September

Okapi Room 2

	Tailoring Bone mimetic matrices: nanocomposite injectable formulations and 3D printing for personalized therapies and tissue regeneration Monica Sandri
11:00 12:30	**AddGraft: a biocompatible and versatile additive for light-based 3D patterning within crosslinked hydrogel networks** Camille Bonhomme
	Self-Rolling Vascular Scaffolds Fabricated via Combined Melt Electrowriting and Melt Electrospinning Agnieszka Piontek
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
	4D tissue engineering widening the control over cell's microenvironment Rui M. A. Domingues & Simão P. B. Teixeira (co-chair)
	Engineering mechanical heterogeneity in 3D cell environments with light Miguel Castilho
	Chemical 4D reconstruction of extracellular matrices using ion-pair-engineered click hydrogels Masayuki Tera
	Mechanistic Modelling and Experimental Validation of a Biocompatible and Biodegradable 3D IPMC Actuator Ryan Murray
14:00 15:30	**Biocompatibility and precision in xolography-based bioprinting: validation of new additives across broad range of cell types** Arpita Roychoudhury
	Engineered mechanical heterogeneity through light-sheet grayscale volumetric bioprinting enables spatial and temporal control of cellular fate Tom van Hattem
	A delayed dissolution, digital light processing bioprinting approach towards vascularized osteogenesis Laurens Parmentier
	Ice-templated IL-2 loaded collagen matrices mimic regulatory T cells tissue microenvironment Minaine Bouabdallah
	Design heterogeneous microenvironments via light-directed biochemical and mechanical patterning of HA hydrogels Anna Finne-Wistrand
15:30 16:15	**Klaas De Groot Award (Queen Elisabeth Hall)** Abhay Pandit (chaired by Matteo D'Este) and Nicholas Dunne (co-chair)
16:15	**Coffee break & Poster Session**
16:45 17:30	**YSF General Assembly (Queen Elisabeth Hall)**

Tuesday, 8th of September

Okapi Room 2

17:30 19:00	**Advanced Manufacturing and Functionalization Strategies for Next-Generation Biomaterials** Miguel Castilho & Max von Witzleben (co-chair)
	Reducing Uncertainty in Mechanical Characterization of Soft Biomaterials: Lessons from the C4Bio Community Challenge Nele Famaey
	Implementation of PCL/AgNPs electrospun coatings onto titanium alloys additive manufactured samples with biomedical applications Sergio Ibáñez-Losantos
	Influence of chemical treatments on the density and surface morphology of sisal fibers for application in polymeric composites Terezinha Santos da Cruz Juliana
	Process Design for Large-Scale Manufacturing of Microneedle Arrays Velayudhan Shiny
	Biochemical transformations during chitosan extraction from crab anatomical fractions revealed by FTIR spectroscopy Paredes Virginia
	Impact of Degradation and Strain on the Fatigue of degradable Magnesium Florian Wieland
	Two-photon polymerized 3D microscaffolds for architecturally controlled stem cell culture platforms Emanuela Jacchetti

Tuesday, 8th of September

Okapi Room 3

	Biomaterials for Wound Healing Opportunities and Challenges to Solve Clinical Needs Nora Ventosa & Judit Tomsen-Melero
	Fiorenza Rancan
	New plant-based nanovesicles based on alkyl polyglucosides surfactants and β-sitosterol as topical drug delivery systems Marta Alcaina-Hernando
	Multifunctional Quatsome-based nanomedicines: A versatile platform for protected biomolecule delivery and advanced wound care Elba Guasch García
08:15 09:45	**A bioactive three-layered ECM-based hydrogel for enhanced wound healing and skin regeneration** Paula Pleguezuelos Beltrán
	Beyond traditional wound dressings: glucose-responsive poly(ether urethane)-based patches patient-personalized through AI- and XR-technologies Rossella Laurano
	Cannabidiol-Loaded PLGA Nanoparticles prepared by microfluidics for Burn Wound Treatment Pedro Luis Echevarria-Torres
	SCOBY nanocellulose dressings enriched with L-carnosine for chronic wound care Anna Baran
	Multifunctional 3D Printable Biomaterials for Enhanced Wound Repair Juliana de Souza Nunes
09:45	**Coffee break & Poster Session**
10:15 11:00	**George Winter Award (Queen Elisabeth Hall)** Manuel Salmeron-Sanchez (co-chaired by Cristina Barrias & Nicholas Dunne)
	Hydrogel Fibre Composites for Enhanced Functionality in Engineered Tissues Kenny Dalgarno & Maria Teixeira (co-chair)
	Carmen Freire
11:00 12:30	**Melt Electrowritten Fiber Reinforcement of OHA–GEL Hydrogels Enables Tunable Neural Microenvironments** Irem Unalan
	From Nanofibrils to Scaffolds: Bacterial Cellulose as a Structural Reinforcement for Hydrogels Anna Laromaine
	Electrically conductive and magnetic microfluidic-spun fiber-laden hydrogels for muscle tissue engineering Salomé Luís

Tuesday, 8th of September

Okapi Room 3

11:00 12:30	**A 3D co-cultured hydrogel-fibre cardiac perfusion model** Fatma Ozdemir Steedman
	Designing conductive hydrogel-based bioinks with polysaccharides and metal-protein nanohybrids for the 3D bioprinting of cardiac tissue platforms Joao P F Carvalho
	Cellulose Supported 3D Printing: Unlocking Complex, Anisotropic Hydrogel Structures for Biomimetic Aorta Models Daniel Pint
	Development and characterization of fiber-reinforced hydrogel scaffolds for osteochondral repair Carla Maximiliane Niendorf
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:30	**Computational Modeling, Digital Twins, and In Silico Testing** Carmen Freire & Martina Birocco (co-chair)
	Exploring the role of opthical depth of field in volumetric, light-based additive manufacturing Hayden Taylor
	Mechanical Diversity of Binding Interactions Improves Robustness in Soft Biomaterials Eleni Papafilippou
	De novo discovery of LLPS-prone short peptides: Mechanistically interpretable generative modelling and coarse-grained molecular dynamics Behafarid Ghalandari
	Gyroid printing using robocasting for bone regeneration: influence of induced anisotropy on printability and mechanical properties Vincent Biscaccianti
	Multiphysics computational model of doxorubicin diffusion in scaffold-engineered fibrotic tumor microenvironments within an avian CAM Alberto Bocconi
	Biomimetic Hypoxic Microenvironment for Glioblastoma Using Organ-on-Chip Laura Sercia
	Patient-specific screw and plate configuration design for femoral fractures: A digital twins and machine learning approach Oscar Leonardo Lorente
15:30 16:15	**Klaas De Groot Award (Queen Elisabeth Hall)** Abhay Pandit (chaired by Matteo D'Este) and Nicholas Dunne (co-chair)
16:15	**Coffee break & Poster Session**
16:45 17:30	**YSF General Assembly (Queen Elisabeth Hall)**

Tuesday, 8th of September

Okapi Room 3

17:30 19:00	**RSC Biomaterials Chemistry Interest Group Symposium Injectable Hydrogels for TERM Applications** Jacek Wychowaniec & Dalila Di Francesco (co-chair)
	Injectable Laponite® crosslinked pNIPAM hydrogels for use as biologically instructive scaffolds Chris Sammon
	Injectable aggrecan-mimicking peptide–CS hydrogels for early-stage cartilage repair James Warren
	Injectable Hyaluronic Acid/Collagen Type II/Silk Fibroin Composite Hydrogels for Mechanically Reinforced Nucleus Pulposus Regeneration under Dynamic Loading Parisa Torabi-Rahvar
	Design of customized injectable hydrogels relying on Schiff-base and supramolecular interactions as potential antibiotic-free therapeutic platforms Roberta Pappalardo
	Resistance-suppressing antibacterial ε-polylysine/hyaluronic acid injectable hydrogels for treating wound infections Artemijs Sceglovs
	Injectable Multifunctional Nanoengineered Strontium-Based Laponite® Hydrogels Accelerates Bone Regeneration via Favorable Raghad Abuhamdan
	Injectable hyaluronic acid hydrogel-enabled mesenchymal stem cell therapy for diabetic chronic wound repair Rijian Song

Tuesday, 8th of September

Gorilla Room 1

	Controlled and Sustained Release Technologies Daniel Kelly & Carlotta Mattioda
	Tailorable Photo-curable Polymeric Inks for 3D-Printed Bioactive Materials Luiz Henrique Catalani
	Collagen microspheres for localized antiinflammatory delivery in chronic skin lesions Nunzia Gallo
	Tunable Hyaluronic Acid-Based Injectable Hydrogels for Sustained and Bioactive Delivery of Sodium Channel Blockers in Neuropathic Pain Cristina Casadidio
08:15 09:45	**Hydrogels mediated delivery of human serum albumin enhances penetration and uptake in Liver spheroid Model** Sana Ahmed
	Green-Synthesized MnO_2@INU-g-bPEI Nanoparticles for Layer-by-Layer siRNA Delivery and MRI-Guided Theranostics Carla Sardo
	Proteinosomes as a delivery system to enhance hydrogel scaffold bioactivity in tissue engineering applications Matteo Nifosì
	Polyelectrolyte complexes as nanocarriers for growth factors Dana Kubies
09:45	**Coffee break & Poster Session**
10:15 11:00	**George Winter Award (Queen Elisabeth Hall)** Manuel Salmeron-Sanchez (co-chaired by Cristina Barrias & Nicholas Dunne)
	Converging Towards Mechano-Transduction in Bone Cartilage Interface Jose Carlos Rodriguez Cabello & Malgorzata Gazinska (co-chair)
	Biofabrication and Bioprinting Strategies for Cartilage, Bone and Osteochondral Tissue Engineering Daniel Kelly
	Clarifying the contributions of time and strain dependent mechanical dynamics toward the determination of cell fate in human-derived scaffolds Bruno Ladeira
11:00 12:30	**Toward rational design: How hydrogel characteristics drive the biomechanical response and matrix deposition of encapsulated chondrocytes** Sanne van de Looij
	DLP bioprinted functionally graded SFMA–κ-carrageenan–TCP scaffolds with selective barrier properties for guided bone regeneration Nikita Pahurkar
	Engineering poly(glycerol adipate)-based elastomeric biomaterials for tissue regeneration Małgorzata Gazińska

Tuesday, 8th of September

Gorilla Room 1

	Decoupling Bone and Cartilage: Biphasic Biofabrication of the Osteochondral Unit Using Wild-Type and RUNX2 KO Human MSCs Anna Puiggali Jou
	Decoupling mechanical and biochemical cues in 3D cell culture using biomimetic adaptable materials Elisa Migliorini
	Mechanotransduction Activated by Stimuli-responsive Biomaterials: Multidoped Hydroxyapatite in Piezoelectric Polymeric Matrix Marija Vukomanovic
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
	Biomaterials and the Immune System Mohamed Elsawy & Mei ElGindi (co-chair)
	Hidden Architectures in Plant Biomaterials: Gluten Peptide Assemblies & Their Immunological Footprint Veronica Dodero
	Laser surface texturing of bulk metallic glass promotes protein adsorption and tissue-regenerative macrophage phenotypes Thomas Green
	Bioprinted Hyaluronic acid/gelatin hydrogel 3D model for studying extracellular histone effects in sepsis-related renal injury Elena Amaro Prellezo
14:00 15:30	**M2 macrophage-derived exosome-functionalized fibrous scaffolds regulate the foreign body response and the coupling of angio/osteoclasto/osteogenesis** Shue Jin
	Dual-Action Fibrin Hydrogels Enhance Macrophage Polarisation and Angiogenesis to Support Regenerative Healing Ana Beatriz Sousa
	The Architecture of Exclusion: Collagen Fibril Alignment as a Mechanical Regulator of Immune Dysfunction Jeremy Teo
	Chirality-programmed self assembling peptides fine tune macrophage inflammation revealed by targeted secretomics Jacek Wychowaniec
	Co assembled fluorescent self-assembling peptide probes enable visualization of macrophage uptake and polarization Jacek Wychowaniec

Tuesday, 8th of September

Gorilla Room 1

15:30 16:15	**Klaas De Groot Award (Queen Elisabeth Hall)** Abhay Pandit (chaired by Matteo D'Este) and Nicholas Dunne (co-chair)
16:15	**Coffee break & Poster Session**
16:45 17:30	**YSF General Assembly (Queen Elisabeth Hall)**
17:30 19:00	**Biomimetic Horizons: Engineering advanced ES constructs** Farnaz Ghorbani & Lorenzo Moroni (co-chair)
	Electrospun Medical Devices: Ten Years of Experience on the Market Teodor-Matei Cirstea
	Polydopamine-functionalized electrospun PCL/PLA/PEG scaffolds for sustained biomolecule delivery in advanced wound dressing systems Felipe Martinez-Ramirez
	Electrospinning a mechanocompatible external support for the Ross procedure Arn Mignon
	Programmable skeletal muscle organization using MEW-patterned thin films Lorenzo Vannozzi
	Manufacturing of Bioartificial Eardrum Replacements for Middle Ear Surgery Matteo Sestini
	Beyond Poly(ε-caprolactone): Poly(ester amide) Scaffolds Fabricated by Electrospinning and Melt Electrowriting for Flexor Tendon Repair Jef Brebels
	Graphene oxide-decorated electrospun architectures for macrophage gene delivery Jana Ghitman

Tuesday, 8th of September

Gorilla Room 3

08:15 09:45	**New Horizons in Antimicrobial Surfaces** Annabel Braem & Lidy Fratila-Apachitei (co-chair)
	Antimicrobial Surface Engineering: Recent Advances in Bioactive Coatings, Nanomaterials and Peptide-Based Biomaterials Artemis Stamboulis
	From Current to Cure: New Horizons in Antimicrobial Strategies for Dental Implants **The NOMAD approach to preventing peri-implant infections** Annabel Braem
	Immobilisation of novel antimicrobial peptides on titanium alloy surfaces enhances antibacterial activity Anindyasundar Adak
	Bioinspired Calcium Phosphate Nanoneedle Arrays as Antibacterial Surfaces for Infection-Resistant Bone Grafts Michele Iafisco
	Cohesion and mechanical stability of biofilms compromised by small molecules with aromatic residue through disassembly and inhibition of functional amyloids Lydie Ploux
	Antimicrobial Peptide Functionalization of High-Entropy Alloy Surfaces for Infection-Resistant Osteosynthesis Implants Emilie Groult
	Light-Activated Photodynamic Polymer Biomaterials as Antibiotic-Independent Strategies to Combat Antimicrobial Resistance Charles Brooker
09:45	**Coffee break & Poster Session**
10:15 11:00	**George Winter Award (Queen Elisabeth Hall)** Manuel Salmeron-Sanchez (co-chaired by Cristina Barrias & Nicholas Dunne)
11:00 12:30	**Next-Generation Biomaterials and Bioengineering Strategies against Antimicrobial Resistance Development** Sanjukta Deb & Annabel Braem
	Reactive nanosized/nanostructured inorganic and hybrid systems for the prevention of infection Christophe Drouet
	Contact-Based Functionalized Gold Nanoparticles for Broad-Spectrum Antimicrobial Activity Martina Žabčić
	Sustainable lignin nanoparticles empowered by gallate-oriented surface chemistry engineering for targeted antibacterial activity Xiaoju Wang
	Fighting bacterial colonization of hydroxyapatite: the role of nanotopography and plasma-treated liquids Albert Ruiz Sorribas

Tuesday, 8th of September

Gorilla Room 3

11:00 12:30	**Antimicrobial Fibrinogen Nanofiber Scaffolds via Nanoparticle Integration** Lea Dierker
	Nano-Boosted Antibiotic Therapy: Chitosan–Cyclodextrin Nanoparticles for Diabetic Foot Treatment Anna Górska-Ratusznik
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:30	**Piezoelectric Biomaterials From Design to Functional Interfaces in Tissue Engineering** Carlotta Pucci & Lorenzo Vannozzi (co-chair)
	Biodegradable NanoPiezoelectrics for Body Healing Thanh D. Nguyen
	Piezoelectric KNN Ceramics: Synthesis-Driven Optimization for Enhanced Osteoblast Response Susanne Staehlke
	Cell-specific Activation of Cytoskeleton Regulators and Voltage-Gated Ion Channels Mediated by Piezoelectric K0.8Na0.2NbO3 Nanoparticles and Low-Intensity Pulsed Ultrasound Diego Trucco
	Active tunning of protein distribution and conformation on magnetoactive composites Paula Rodriguez Lejarraga
	Multiscale modeling of PVDF piezoelectric ultrafine fiber meshes for cochlear applications Matteo Sestini
	Auxetic cardiac patches combining mechanical support and piezoelectric stimulation for myocardial repair Silvia Marino
	3D-Printed Piezoelectric Scaffolds Coupled with Ultrasound Stimulation Synergistically Promote the Osteogenic Differentiation of Mesenchymal Stem Cells for Bone Tissue Engineering João Silva
	Remotely and non-invasively activated piezoelectric scaffolds for electromechanical tissue regeneration Dabin Kim
15:30 16:15	**Klaas De Groot Award (Queen Elisabeth Hall)** Abhay Pandit (chaired by Matteo D'Este) and Nicholas Dunne (co-chair)
16:15	**Coffee break & Poster Session**
16:45 17:30	**YSF General Assembly (Queen Elisabeth Hall)**

Tuesday, 8th of September

Gorilla Room 3

17:30 19:00	**Bioactive Coatings and Electrophoretic Deposition From Design to Biomedical Applications** Lina Altomare (chair) & Annabel Braem (co-chair)
	Electrophoretic Deposition as versatile technique for developing advanced antibacterial and bioactive coatings Aldo R. Boccaccini
	Electrophoretic deposition of epidermal-inspired collagen films for wound healing Mehmet Kerem Citak
	Electrophoretic Deposition as a One-Pot Strategy to Fabricate Multifunctional Chitosan Patches Embedding Alginate Microspheres for Drug and Cell Delivery Lina Altomare
	Sono-Electrodeposited CaP–Sr Coatings on Carbon Cloth for Bone Repair Mathilde Hindié
	A combination of plasma polymerization and plasma etching to control the antibacterial properties of biomaterial in dental care Federico Apolloni

Tuesday, 8th of September

Gorilla Room 4

	Innovative strategies to integrate gasotransmitters and signalling molecules into biomaterials for therapeutic action Julieta Paez & Deepa Deepa
	Hydration-Controlled Nitric Oxide Delivery from S-Nitrosothiol-Integrated Biomaterials Marcelo Ganzarolli de Oliveira
	Design and optimization of nitric oxide (NO) releasing hybrid supramolecular hydrogels for cardiovascular applications Deepa Deepa
	Nitric Oxide Release from S-Nitrosoglutathione Preserves Vasodilation and Reduces Infarct Size After Myocardial Ischemia-Reperfusio Eronildo Alves PInto Junior
08:15 09:45	**Nitric Oxide-Releasing Methacrylated Pluronic Hydrogels for Antileishmanial Therapy** Letcia Bazilio Rosa
	Amir Abdo **Gasotransmitter-Modulating MOF Nanoparticles for Immunometabolic Reprogramming in Triple-Negative Breast Cancer**
	Insights into S-Nitrosothiol Decomposition: S-Nitroso-N-Acetylcysteine as a Model for the Design of Next-Generation NO• Releasing Wound-Care Materials Veerle Boterberg
	Structure–property–function relationships of hydrogen- and nitrogen-modified titanium–amorphous carbon coatings for blood-contacting applications Zuzanna Zajaç
	Influence of plasma electrolytic oxidation coatings on the corrosion resistance and biocompatibility of biodegradable Mg and Zn-based materials Monica Echeverry Rendon
09:45	**Coffee break & Poster Session**
10:15 11:00	**George Winter Award (Queen Elisabeth Hall)** Manuel Salmeron-Sanchez (co-chaired by Cristina Barrias & Nicholas Dunne)
	Functional and Biodegradable Nanomaterials Innovations and Nanotoxicological Insights from Alternative Models Gianni Ciofani & Alessio Carmignani
11:00 12:30	**Next-Generation Tools for Nanotoxicology: New Approach Methodologies to Assess Nanomaterial Safety** Ernesto Alfaro-Moreno **Engineered materials based on natural eutectic solvents to embed functional entities** Ana Beloqui Elizazu
	Fucoidan-functionalized multilayer nanoparticles for targeting activated endothelial cells Aitor Larrañaga

Tuesday, 8th of September

Gorilla Room 4

	Cell Membrane-Coated Polydopamine Nanoparticles for Photothermal Therapy against Glioblastoma Alessio Carmignani
11:00 12:30	**Evaluating Cytotoxicity of Fibrous and Hydrogel Biomaterials to Inform Scaffold Design for Conjunctival Repair** Jessica Hollett
	Development of tacrine and gallic acid conjugated nanotherapeutics for Alzheimer's disease Binnur Aydogan Temel
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
	Current concepts in orthopaedic device-related infection Geoff Richards (chair) and Britt Wildemann (co-chair)
14:00 15:30	**Biomaterials for multidrug-resistant implant infection: bacteriophages and beyond** Fintan Moriarty **Animal models for testing efficacy of antimicrobial biomaterials** Claudia Siverino **Strategies for the prevention of implant-associated infection** Britt Wildeman **Soft biomaterials for antibiotic delivery: a design journey guided by surgical practice** Matteo D´Este
	Development of propolis-loaded alginate dry hydrogels with antibacterial properties for osteomyelitis treatment Rita Gomes
	Localised Corrosion and Mechanical Degradation in Clinically Used Bone Rasps Mohammad Ibrahim
	Development of Mg-Y-Zn based alloys for orthopaedic staple applications Domonkos Tolnai
	Marine Waste Shells as New Biomaterials for Orthopaedic Application: Eco-friendly Conversion Route to obtain Green Hydroxyapatite and Nanostructured Coatings Matteo Montesissa
15:30 16:15	**Klaas De Groot Award (Queen Elisabeth Hall)** Abhay Pandit (chaired by Matteo D'Este) and Nicholas Dunne (co-chair)
16:15	**Coffee break & Poster Session**
16:45 17:30	**YSF General Assembly (Queen Elisabeth Hall)**

Tuesday, 8th of September

Gorilla Room 4

17:30 19:00	**Current Advancements in Oral, Dental and Craniofacial Tissue Regeneration** Annelies Bronckaers & Mariano N Simon Pedano De Piere (co-chair)
	Marco Bottino **Human epithelial tooth organoids reveal direct causal links between common pharmacological agents and ameloblast dysfunctions** Annelies Bronckaers
	From Spheroids to Macro Tissues: Vasculogenic Potential of DPSC Spheroids for Dental Pulp Tissue Engineering Büşra Şenel Demirtaş
	Bioengineered HA-Internalizing Osteoblasts and Osteonectin Synergistically Boost Bone Regeneration Xiyu Li
	Design and Processing of UV-Curable Calcium Phosphate Inks for Direct Ink Writing of Tooth Root Scaffolds Athanasios Alexandridis
	In Situ Photocrosslinked Thiol-Ene/Dithiolane Nanocomposite Hydrogels Based on modified-Hyaluronic Acid and Dendritic Polymer for Bone Regeneration Alessia Lo Re

Tuesday, 8th of September

Darwin Hall

	Polymeric Biomaterials – Natural Yuichi Ohya & Eavan Pakenham (co-chair)
08:15 09:45	**Functional glycosaminoglycan-based biomaterials for injectable formulations and 3D bioprinting** Chiara Schiraldi
	Design of chitosan and hyaluronic acid nanoparticles able to overcome the mucus barrier for the treatment of lung infections Mario di Gennaro
	Multifunctional antioxidant hybrid hydrogels containing cerium oxide nanocrystals for accelerated wound healing Manon Minsart
	Protease catalyzed cross-linking of peptide grafted alginate chains Rupert Kargl
	Tensile properties of single- and multi-type mixed fibre bundles of spider silk Siripanyo Promnil
	A mechanically programmable hydrogel platform for probing mechanotransduction during plant protoplast regeneration Adrivit Mukherjee
	3D ZnO Tetrapod-Based PLLA Biocomposite Films as Potential Antimicrobial Food Packaging Materials Joana Catarina Moreira
	Functional hydrogel materials for biomedicine and biotechnology: From design to 3D-printed systems Johanna Meyer
09:45	**Coffee break & Poster Session**
10:15 11:00	**George Winter Award (Queen Elisabeth Hall)** Manuel Salmeron-Sanchez (co-chaired by Cristina Barrias & Nicholas Dunne)
	Polymeric Biomaterials – Synthetic **Chiara Schiraldi & Kenneth Cerdan Gomez (co-chair)**
11:00 12:30	**Temperature-responsive biodegradable injectable polymer systems for biomedical applications** Yuichi Ohya
	Poly(2-oxazoline)s as antifouling materials Richard Hoogenboom
	Adaptive PEG hydrogels with clustered biochemical signals for tumoroids culturing Evgeny Apartsin
	Biological assessment of azithromycin-loaded poly(sebacic acid) microparticles for lung delivery: antimicrobial efficacy and response in S. aureus-epithelial cell coculture model Jonasz Czajkowski

Tuesday, 8th of September

Darwin Hall

11:00 12:30	**Thermosensitive and photocrosslinkable PVA–PEG hydrogel as a synthetic alternative to Matrigel for organoid culture** Lucas Lemarié
	Development of a dual-stimuli responsive system for on-demand drug delivery and magnetic hyperthermia Paula Soares
	Thiol-yne Mediated Covalent Conjugation-Induced Self-Assembly for Multiscale Polymeric Biomaterials Catherine Noonan
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:30	**Biofabrication of complex tissues and models using functional biomaterials** Yanghee Kim & Maria Chatzinikolaidou (chair) & Gianluca Cidonio & Khoon Lim (co-chair)
	3D Printing and Biofabrication of Engineered Tissues In Vitro Byoung Soo Kim **Novel Bioinks for 3D printing and Biofabrication of 3D tissue models** Giovanni Vozzi
	Engineering a 3D model of bone metastasis with citrate-functionalized hydroxyapatite nanocrystals and microfluidics to investigate the role of citrate in prostate cancer progression Sofia Avnet
	Engineering Bruch's Membrane-Mimicking Substrates for ARPE-19 Barrier Maturation: A Comparative Study of Electrospun PLGA and Gelatin Membranes Mauro Di Stasi
	Development and in vitro evaluation of 3D-printed biodegradable hydroxyapatite bioscaffolds Baghdasaryan Lilit
	From avascular constructs to living tissues: engineering vascularized bioprinted skin Adrian Perez Barreto
	Collagen substrates allow independent control over physical properties and biological functionality for in-vitro culture of renal primary cells Emrys Thursfield
15:30 16:15	**Klaas De Groot Award (Queen Elisabeth Hall)** Abhay Pandit (chaired by Matteo D'Este) and Nicholas Dunne (co-chair)
16:15	**Coffee break & Poster Session**
16:45 17:30	**YSF General Assembly (Queen Elisabeth Hall)**

Tuesday, 8th of September

Darwin Hall

17:30 19:00	**Biomaterials for Drug Delivery Systems** Giovanni Vozzi & Cristina Casadidio (co-chair)
	Doubly reversibly crosslinked bioinks Robert Luxenhofer
	Elaboration of photothermal hydrogels triggering the release of therapeutics from connected wound dressings Roa Bouhamad
	Design and preclinical–clinical evaluation of drug-eluting osteosynthesis plates for the prevention of bone infections Julien Dartus
	Eliciting systemic antitumor immunity and remodeling the microenvironment with a dual-targeting in situ nanovaccine Zhen-Kai Lin
	Estrogen-embedded bone-seeking polymers to inhibit osteoporotic bone resorption Yasuhiko Iwasaki
	Urszula Piotrowska **Tunable Thermosensitive Chitosan/β-Glycerophosphate Hydrogels for Local Irinotecan Delivery**
	Non-viral CRISPR/Cas9-based nanoformulation to gene editing aged cells Susana Simoes

DISCOVER NGB™ ROBOTIC BIOPRINTING PLATORM

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Wednesday, 9th of September

Queen Elisabeth Hall

08:15 09:45	**Bioprinting and Additive Manufacturing** Y Shrike Zhang & Joanna Babilotte (co-chair)
	Emerging Fabrication Technologies to Drive the Next Era of Innovation in 3D Printing Paul Dalton
	Light-based 3D-printing of tunable photo-crosslinkable gelatins for urethral repair Nele Pien
	Lab-on-a-chip platform with controlled oxygen release systems to promote osteochondral system survival Anderson De Oliveira Lobo
	Bioengineering vascularized composite skin equivalents via LATTICE for hierarchical perfusable tissue fabrication Sushma Priya
	3D Printing of Ultra-High-Resolution Biocompatible Photopolymers for Bone Implants via µ-DLP Milena Siapera
	Melt electrowriting of medium-chain-length polyhydroxyalkanoates: from processing to structures Lukas Weber
09:45	**Coffee break & Poster Session**
10:15 11:00	**International Award: Diego Mantovani (Queen Elisabeth Hall)** Chair: Maria Chatzinikolaidou & Elzbieta Pamula
11:00 12:30	**Modular biofabrication approaches for tissue engineering** Heungsoo Shin & Lino Prados Martin (co-chair)
	Modular Tissue Biofabrication Y Shrike Zhang
	Volumetric Bioprinting of Perfusable and Fully Endothelialized Vessels Model Gaja Zanoni
	A vascularized osteosarcoma-on-a-chip to model endothelial barrier and study drug transport Maria Veronica Lipreri
	Convergence of extrusion-based bioprinting of microgel-microtissue composite bioinks and melt-electrowriting for cartilage regeneration Lisanne Dechant
	Remote Magnetic Actuation Enhances Maturation and Assembly of Cartilage Microtissues Noam Demri

Wednesday, 9th of September

Queen Elisabeth Hall

	In-situ 3D reconstruction and non-planar trajectory generation for colorectal bioprinting Irene Chiesa
11:00 12:30	**Technical Pen Integration for Advanced Additive Manufacturing of Biologics** Paola Carou-Senra
	4D printing of advanced tubular constructs towards artificial tendon sheaths Max von Witzleben
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
12:50 13:50	**CSBM-ESB (Okapi room 2) - Chair: Maria Raucci**
	Modular Microbiomaterials for Bottom-Up Tissue Engineering Sabine van Rijt & Sebastien Callens (co-chair)
	Building life like LEGO: Modular microbiomaterials for bottom-up tissue engineering Niloofar Tahmasebi Birgani **Engineering Protein-Fibers and Protein-Sheets** Guy Patchornik
	Callus organoid-derived extracellular matrix as a modular building block for bone regeneration Jiarun Bai
14:00 15:30	**Hyaluronan-based transcript activated matrices and biomaterial inks for bone tissue engineering** Matteo D'Este
	Tuning the crosslinking and void fraction of highly flowable microparticles directs cell infiltration and multicellular organization Asma-sadat Vaziri
	Screening and combinatorial optimization of bioactive ions for multi-phase bone regeneration Niccolò Bianco
	Self-growing biohybrid engineered living matter with multiscale mechanics using mechanically programmable synthetic cells Isa Porsul
15:30 16:30	**Fellow's debate (Queen Elisabeth Hall)**
16:30 17:00	**Coffee break & Poster Session**

Wednesday, 9th of September

Queen Elisabeth Hall

	Biomaterials Combined with Cells (Cell-Instructive Materials) Prof. Niloofar Tahmasebi Birgani & Chiara Schiraldi & Adrian Perez Barreto (Co-chair)
	Chain-selective presentation of RGD in static and dynamic double-network hydrogels modulates hMSC mechanotransduction and secretome Matt Baker Małgorzata Włodarczyk-sBiegun
17:30 18:30	**Engineered cell-laden hemostatic hydrogels for all-round rapid repair of diabetic wounds and liver bleeding** Sudip Mukherjee
	Engineering an Immuno-instructive Mucus for Inflammatory Bowel Lydia Blacklock
	Beyond conductivity: conductive polymers as local regulators of electrical and redox microenvironments Petr Humpolíček
	Engineered recombinant strategies to organohydrogel design for tissue engineering Tsung-Yen Lee
	Building a gradient scaffold to support enthesis repair using SHED cells Rachel Wandless
19:00 ...	**YSF's Night Out (KAVKA, Oudaan 14, 2000 Antwerp)**

Wednesday, 9th of September

Okapi Room 2

08:15 09:45	**Biodegradation, Stability, and Long-Term Performance** Patricia Diaz-Rodriguez & Evgeny Apartsin (co-chair)
	Tailoring the structure of polyphosphoester networks for the design of functional scaffolds for tissue engineering Christine Jérôme
	Biodegradable phosphoroamidate photopolymers with tunable mechanical properties and controlled degradation for additive manufacturing Mahsa Mostofizadeh
	From sea to scaffold: barnacle materials actively promote bone regeneration through multiple pathways Long Chang
	Effect of supercritical CO2 on the structure and degradation of PLA surgical meshes Cédric Bossard
	Electrocompaction vs. Mechanical Compaction - Production of Stable (Fibre Reinforced) Collagen Gels Peter Schyra
	Heating of dental composites: The crucial role of the silane coupling agent on the consistency change Benjamin Grob
	Enzymatically crosslinked alginate-nanocellulose inks for 3D printing and tissue engineering scaffolds Karin Stana Kleinschek
09:45	**Coffee break & Poster Session**
10:15 11:00	**International Award: Diego Mantovani (Queen Elisabeth Hall)** Chair: Maria Chatzinikolaidou & Elzbieta Pamula
11:00 12:30	**Biomaterials for Combination Therapies (Drug–Device, Drug–Cell)** Matt Baker & Oommen Varghese (co-chair)
	Patricia Diaz-Rodriguez **Engineering Biofunctional Scaffolds for Multimodal CNS Regeneration** Sing Yian Chew
	Hydrogel Microneedle Patches with SERS Detection for Rheumatoid Arthritis Treatment Lei Liu **A Smart Ingestible Capsule for Targeted Sampling of Intestinal Microbiota** Hanna Hamoud-Michel
	GelMA-based delivery system of stable induced regulatory T cells for local immunomodulation Carlotta Ricciardi
	Multifunctional calcium phosphate systems for simultaneous infection control and bone regeneration Dagnija Loca

Wednesday, 9th of September

Okapi Room 2

12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
12:50 13:50	**CSBM-ESB (Okapi room 2) - Chair: Maria Raucci**
14:00 15:30	**Unlocking research funding from international organizations: opportunities and success stories** Liesbet Geris
15:30 16:30	**Fellow's debate (Queen Elisabeth Hall)**
16:30 17:00	**Coffee break & Poster Session**
17:30 18:30	**Nanocarriers for Drug and Gene Delivery** Christine Jérôme & Lorenzo Vannozzi (co-chair)
	Biopolymers based responsive nanocarriers for the delivery of therapeutics Anitha Ethirajan
	Improving non-viral gene delivery by osmotic shock: mechanistic insights into enhanced nucleic acid-dependent transfection efficiency Flaminia Fruzzetti
	A Compact Inhalable DNA Tetrahedron Carrier for Efficient Pulmonary microRNA Delivery Lan Yao
	Engineering quality-by-design optimized layer-by-layer PLGA based carriers for microRNA gene therapy in acute respiratory distress syndrome Preeti Salve
	Integrating experiments and molecular simulations to elucidate nitric oxide delivery in chemometrically optimized chitosan nanoparticles Renan da Silva Nunes
	Archaeosomal Nanocarriers for Oral Drug Delivery Based on a Chemically Tunable Tetraether Lipid Platform Marin Smoljo
	Hybrid Mesoporous Silica Nanoparticles-Chitosan Hydrogels for Controlled Local Antibiotic Delivery in Wound Care Monika Papić
	Multifunctional large pore mesoporous bioactive glass nanoparticles for biomedical applications Gabriel Barrero Rodríguez
19:30 20:30	**YSF's Night Out (KAVKA, Oudaan 14, 2000 Antwerp)**

Wednesday, 9th of September

Okapi Room 3

08:15 09:45	**Biomaterial responses in a pathological environment** Gianni Ciofani & Clara Barbut (co-chair)
	Bioprinted interfacial complex constructs for advanced healthcare applications Maria Chatzinikolaidou
	In situ targeted electrode formation based on enzymatic polymerization fueled by altered metabolic pathways in epileptic brain microenvironment Febe De Roos
	A mechanomodulatory 3D hydrogel platform to dissect fibroblast fate and matrix remodelling in skin fibrosis Rafaela Presa
	Tunable gelatin-chitosan hydrogels for lymph node-inspired 3D models in cancer immunothera Andrea Fajardo García
	An infectionresponsive collagen-based wetspun textile fibre for wound monitoring Jonathon Gorman
	Chitosan and citric acid – cyclodextrin polymer hydrogel for drug delivery: relationship between rheological characteristics and release properties Henry Chijcheapaza-Flores
	Aesthetic dental Materials: Photoactive antiinfective fluorapatite coatings Lydia Dawkins
09:45	**Coffee break & Poster Session**
10:15 11:00	**International Award: Diego Mantovani (Queen Elisabeth Hall)** Chair: Maria Chatzinikolaidou & Elzbieta Pamula
11:00 12:30	**Dynamic and stimuli-responsive nanocomposite engineering materials adaptability to instruct cellular responses** Giulia Suarato & Niloofar Tahmasebi Birgani (chair); Giada Graziana Genchi (Co-Chairs)
	Remotely Activated Nanomodulators of Microglia for Glioblastoma Immunotherapy Gianni Ciofani
	Microenvironment-responsive mesoporous silica nanoparticles for osteosarcoma therapy and bone repair Sabine van Rijt
	Magnetic fieldinduced drug delivery: an insight on the role of magnetoelectric nanoparticles size, shape and surface functionalization Anna Tommasini
	Mechanically Active Hydrogel Platform for Targeted Glioblastoma Therapy: TrapKill Taryn Clarke
	Biodegradable piezoelectric poly-L-lactic acid nanoparticles for wireless electrical stimulation in tissue engineering Carlotta Pucci

Wednesday, 9th of September

Okapi Room 3

11:00 12:30	**4D Piezoceramic-Integrated Scaffolds with Bioelectric Cues for Skeletal Muscle Regeneration** Noemi Ravaglia
	Integrating conductive bioinks and laser-based processing for hybrid bioelectronics Henrique Vazão de Almeida
12:30 14:00	**Lunch & Poster Sessions**
12:50 13:50	**CSBM-ESB (Okapi room 2) - Chair: Maria Raucci**
14:00 15:30	**Cell–Material Interactions and Biointerfaces** Rosalia Cuahtecontzi Delint
	Sandra Camarero-Espinosa
	Interplay between stiffness and mineralization in collagen constructs regulates osteoclastogenesis Micol Bressan
	Microfluidic electrochemical biosensing platform for continuous, non-invasive monitoring of cardiac biomarkers in engineered tissues Claudia Almeida Silva
	Engineering a fully bone organ with active remodeling and vascularization on biphasic calcium phosphate scaffolds Mira Hammad
	A changing world: matrix viscoelasticity and degradability synergize to govern stem cell mechanobiology differentially in 3D vs 2D Rui Ling Lee
	Investigating cholesterol-containing liposome toxicity, immunogenicity and penetration in neuronal cell lines and brain organoids Eulalie Lafarge
	Intra/extra-cellular functions of inorganic nanozymes for anticancer treatments Tamaki Naganuma
	A Microengineered Platform for Geometrical Confinement and Dorsoventral Patterning of Human Spinal Cord Organoids Rita Grimalt Mirada
15:30 16:30	**Fellow's debate (Queen Elisabeth Room)**
16:30 17:00	**Coffee break & Poster Session**

Wednesday, 9th of September

Okapi Room 3

	Biomaterials Science lectureship symposium Maria Southall & Hannah Agten (co-chair)
	Engineering Biomaterials for Glucose-Responsive Diabetes Therapy Matt Webber
	Assessing the humidity effects on fracture behavior in polycrystalline alumina: a microcantilever study and phase-field modeling of slow crack growth Martina Birocco
17:30 18:30	**Porous Microcrystalline Diamond Bio-interfaces for Ultrasensitive early detection of CEA and CYFRA 21-1 biomarkers** Sowmya Joshi
	Poly(alkylene terephthalate)s as a platform material for melt electrowriting Lenny Van Daele
	Development and characterization of albumin-based materials Zahra Akbarpour
	Development of composite acrylic bone cements: effect of HEMA/MMA ratio on the formulation Pauline Desoutter
19:30 20:30	**YSF's Night Out (KAVKA, Oudaan 14, 2000 Antwerp)**

Wednesday, 9th of September

Gorilla Room 1

	Extracellular Vesicles and Biomaterials New Horizons for Targeted Therapies Miguel Lino & Patrícia Pitrez (cochair)
	Engineered Extracellular Vesicles: Advancing Next-Generation Theranostics tools in Regenerative Medicine Hugo Fernandes
	Extracellular Vesicle-Based Senotherapeutics for Targeting Vascular Aging Patricia R. Pitrez
	Room-Temperature Radiolabeling of Small Extracellular Vesicles with 89Zr4+ for Monitoring Transient Blood-Brain Barrier Opening Arnab Banerjee
08:15 09:45	**TEM and AIBased Morphological Profiling of Extracellular Vesicles and Mitovesicles for ALS Diagnosis** Esra Cansever Mutlu
	Engineered bone marrow stem cell-derived extracellular vesicles for bone repair and regeneration properties Evangelia Bochti
	Engineering the next generation of biologically active vascular grafts Justine Clarke
	Engineered plant-derived extracellular vesicles tagged with magnetic nanoparticles as novel antitumoral agents Marisa Conte
	Unravelling the potential of Star-Shaped PolyLactic Acid Functionalized with β-Cyclodextrin for Doxorubicin Delivery in Osteosarcoma cells Angela Scala
09:45	**Coffee break & Poster Session**
10:15 11:00	**International Award: Diego Mantovani (Queen Elisabeth Hall)** Chair: Maria Chatzinikolaidou & Elzbieta Pamula
	Biomaterials Designed from Particulate Building Blocks Mani Diba & Laura De Laporte (cochair)
	Tatiana Segura
11:00 12:30	**Design of a photocrosslinkable organicinorganic colloidal hydrogel** Ilze Donderwinkel
	Glycopeptidebased Hydrogels as Storage Depots that Promote Vascularisation Ana Rita Araújo
	Surfacefunctionalized hybrid silica–hydrogel biomaterials for stimuli-responsive pH sensing at cellular scale Helena Iuele

Wednesday, 9th of September

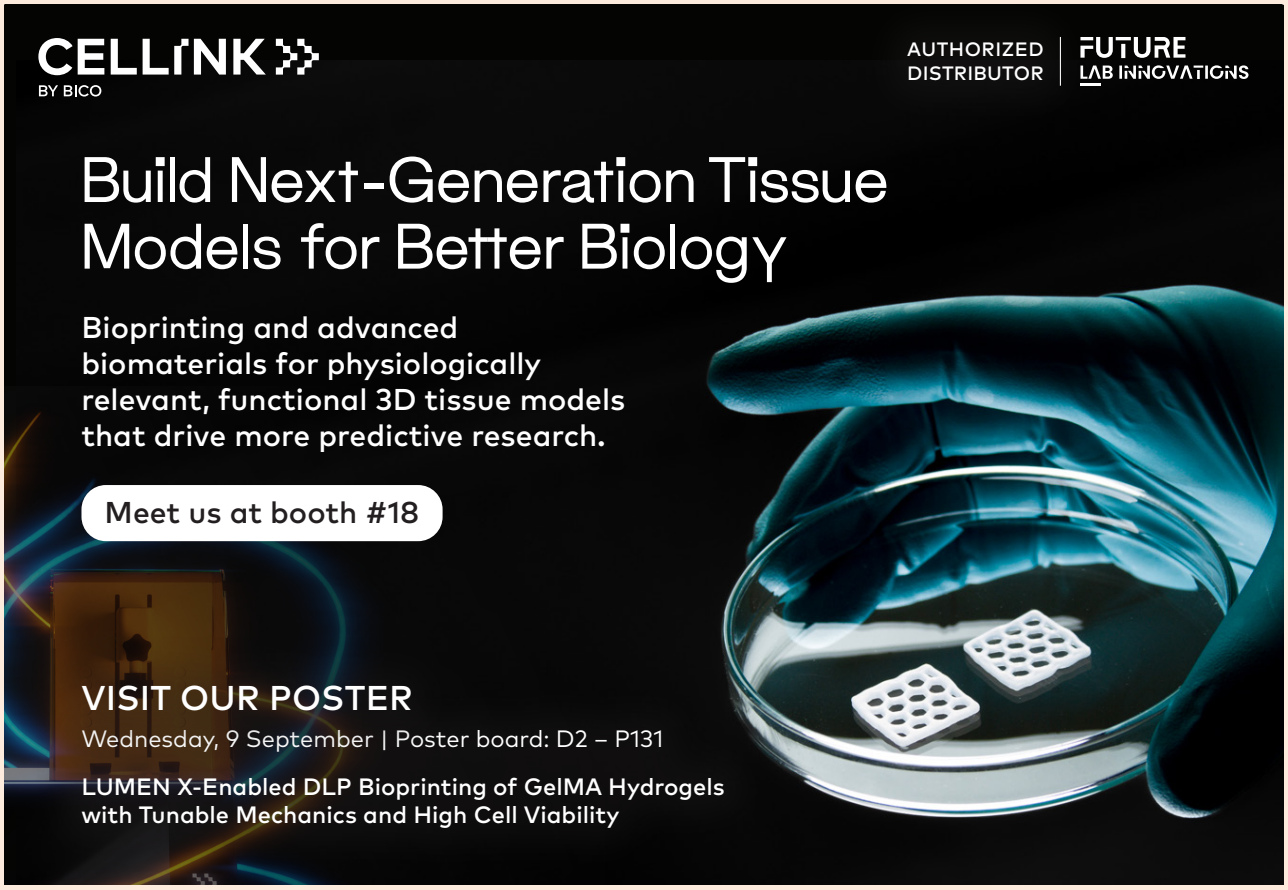
Gorilla Room 1

11:00 12:30	**Zinc-doped mesoporous bioactive glass nanoparticles for treating intracellular infections** Lea Andrée
	Supramolecular glycohelices: control of handedness and cytotoxicity Vânia I. B. Castro
	Bioactive glass scaffolds loaded with Superparamagnetic Iron Oxide Nanoparticles (SPIONs): a multifunctional approach for bone regeneration and hyperthermia in bone cancer treatment Sara Giacobbi
	Amorphous Borate Glass Composite Scaffolds with Incorporated Mesoporous Bioactive Glass Nanoparticles fabricated by DLP Fatih Kurtuldu
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
12:50 13:50	**CSBM-ESB (Okapi room 2) - Chair: Maria Raucci**
14:00 15:30	**Immunomodulatory and Immuno-Instructive Biomaterials** Jennifer Ashworth & Tapas Mitra (co-chair)
	Immunomoduslatory multifunctional biomaterials for tissue regeneration Heungsoo Shin
	Hydrogel activating regulatory T cells in vivo regenerates bone defects Gabriele Nasello
	Immunomodulatory potential of polydopamine coatings in drug delivery patches targeting chronic inflammation Robyn Alexandra Macartney
	Immunomodulatory Effects of Chromium-Doped Nanoparticles on Macrophage Polarization for Osteoporotic Bone Repair and Remodelling Abayomi Yusuf
	Praseodymium-Nanocarriers for Immunomodulation and Bone Regeneration in Osteoporosis Lokitha Raju
	Macrophage-targeted and reprogrammed exosome-functionalized fibrous scaffold promote heterogeneous tissue regeneration Shue Jin
	Modulating Immune Responses of Superparamagnetic Iron Oxide Nanoparticles by Smart Biopolymer Coatings Negin Pournoori
15:30 16:30	**Fellow's debate (Queen Elisabeth Hall)**
16:30 17:00	**Coffee break & Poster Session**

Wednesday, 9th of September

Gorilla Room 1

	Scaffolds for advanced cell models of disease including tumour microenvironments Serena Best & Nathalie Bock (chair) & Malavika Nair & Amaia Cipitria Sagardia (co-chair)
	Exploring Cell-Matrix Interactions in Health & Disease using Precision Biomaterials Jennifer Ashworth
	Mapping patient-specific prostate cancer stroma interactions in a three-dimensional bioengineered tumour microenvironment Anna Taubenberger
17:30 18:30	**Evaluating nanoparticle penetration in tumor-like matrices using a volumetrically 3D printed model** Amir Abrishami
	Engineering 3D bone organotypic models of dormant breast cancer metastasis to study cell-extracellular matrix crosstalk Oihane Mitxelena-Iribarren
	Monitoring 3D printed disease models: tools and strategies Clara García Astrain
	Alginate-based hydrogels to quantify ECM viscoelasticity Rebekah Kay
19:30 20:30	**YSF's Night Out (KAVKA, Oudaan 14, 2000 Antwerp)**



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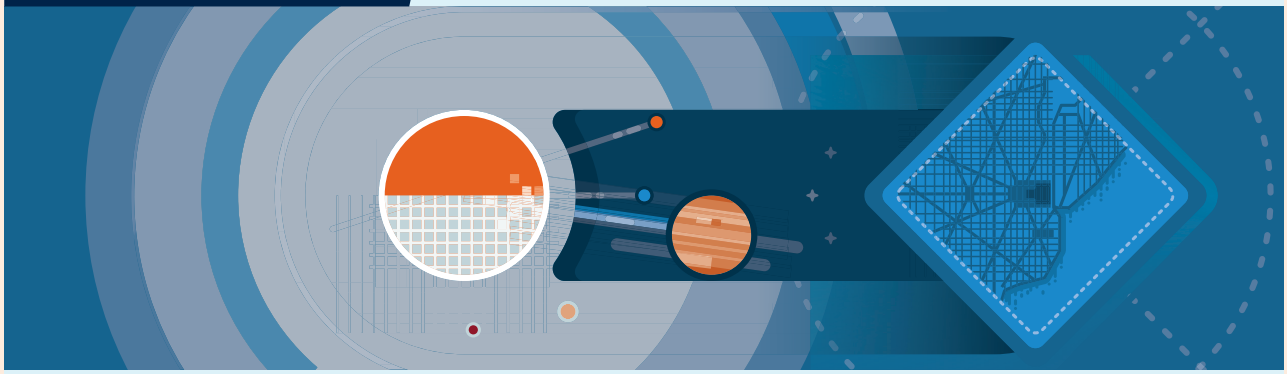

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Wednesday, 9th of September

Gorilla Room 3

08:15 09:45	**Surface Modification and Functionalization** Raj Shabadi & Jana Horakova (co-chair)
	Nanostructured Sustainable Hydrogels for Tissue Regeneration Izabela-Cristina Stancu
	Immunomodulatory effects of peptide-based coatings on a 3D gingival model for peri-implantitis prevention Irene Mallor
	Repurposing hair as a functional bioelectronic interface for high-resolution EEG via conductive polymer dyes Shweta Shweta
	Surface modification of bioresorbable polymers for opposite thrombogenic responses in stents and coils Marta Pegueroles
	Surface functionalization of PLLA-coated stainless-steel devices for hard tissue engineering through macroscopic polarization Júlio Rocha
	Angiogenesis, healing and immunomodulation studies of copper-functionalized mesoporous bioactive glass nanoparticles as a dual platform for bone regeneration and infection control Marina Luna-Martínez
	Design and Synthesis of a Mussel-Inspired Bioactive Peptide for the Biofunctionalization of Metallic and Biodegradable Scaffolds Yuliya Khrunyk
	3D-printed PCL/INU-PLA scaffolds enabling bulk and surface in situ MnO_2 functionalization as multifunctional bone biomaterials Giulia Auriemma
09:45	**Coffee break & Poster Session**
10:15 11:00	**International Award: Diego Mantovani (Queen Elisabeth Hall)** Chair: Maria Chatzinikolaidou & Elzbieta Pamula
11:00 12:30	**Bioresorbable Metallic Implants Alloy Design, Biological Performance and Clinical Translation** Cecilia Persson (chair) & Diego Mantovani & Annabel Braem (co-chair)
	Architecting the Next Generation of Bioresorbable Metallic Implants: From Alloy Design to Predictive Biomaterials Engineering Raj Shabadi
	Biological response to biodegradable alloys Regine Willumeit-Römer
	Magnesium Alloy Development for Additive Manufacturing of Biodegradable Implants: The Effect of Powder Size and Morphology on the Sinterability Mert Celikin

Wednesday, 9th of September

Gorilla Room 3

11:00 12:30	**Influence of macrophage on the electrochemical corrosion of Mg-based Implants** Manas Ranjan Sahu
	Comparison of bone healing using β-titanium alloy and Ti-6Al-4V plates with matched axial stiffness Masaaki Nakai
	Bioactive PLGA-Plasma Electrolytic Oxidation coatings on β-Titanium alloys for an increased antibacterial activity Maria Evanthia Nousia
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
12:50 13:50	**CSBM-ESB (Okapi room 2) - Chair: Maria Raucci**
14:00 15:30	**Nanostructured and Nanocomposite Biomaterials** Diego Mantovani & Julia Martínez Ramírez (co-chair)
	Engineering Dynamic Interfaces with 3D Printing Christine Selhuber-Unkel
	Organic polydopamine nanobots for remotely controlled propulsion and targeted bio-interfacing Matteo Battaglini
	Sequence-engineered Au/TiO_2 hybrid nanocomposites on diatomaceous biosilica: a green synthesis strategy for enhanced antibacterial performance Magdalena Olszewska
	Effect of Crosslinker Molecular Weight in Nanogel Plasticizers on the Glass Transition Temperature of Polymer Matrices Manju Saraswathy
	Metal-oxide nanoparticles` effect on in vivo and in vitro applications Zsejke-Réka Tóth
	Hybrid Black Phosphorus Quantum Dots–Polydopamine Platform for Tunable Neural Activity Modulation Maria Grazia Raucci
	Au-nanoparticle-doped PVA:PEG nanofibers for wound healing applications Elena Filova
	Effect of Chitin Nanocrystals on Performance Properties of Tropoocollagen-Based Nanocomposite Hydrogel Membrane Abdelmohsen Abdellatif
15:30 16:30	**Fellow's debate (Queen Elisabeth Room)**
16:30 17:00	**Coffee break & Poster Session**

Wednesday, 9th of September

Gorilla Room 3

	Metallic Biomaterials Christine Selhuber-Unkel & Matteo Pavarini (co-chair)
17:30 18:30	**Bioactive materials interacting with cells and tissue through surfaces: The role of processes, linking arms and biomolecules** Diego Mantovani
	Metal-Coordinated Surface for Stem Cell Fate Control in Bone Tissue Engineering Rosario Daniela Moreno Mora
	Comparative Fatigue Performance and Microstructural Characterization of Ti-6Al-4V Biomaterial Fabricated via Advanced Manufacturing Techniques Rishad A R
	Zinc-Incorporated Porous Coatings on Ti-35Nb-7Zr-5Ta Alloy Produced by Micro-Arc Oxidation for Biomedical Applications Michał Bartmański
	Tailored Surface Finishing of Biodegradable Fe–Mn–C Alloys through Dual Organic–Inorganic Acid Pickling Iria Lucena Araujo
	Tunable Bioactive Hydrogels via Bisphosphonate–Metal Coordination Lin Zhong
	Detection of enzymes using a wireless, implantable, and bioresorbable device Thibaut Babin
19:30 20:30	**YSF's Night Out (KAVKA, Oudaan 14, 2000 Antwerp)**

Wednesday, 9th of September

Gorilla Room 4

	Biomaterials translated to the clinic Patricia Dankers & Amir Abdo (co-chair)
08:15 09:45	**Polymeric Platforms Tailored to Pathological Microenvironments: Strategies for Inflammation and Skin Repair** María Rosa Aguilar
	mRNA polyplexes for tackling fibrosis in the context of spinal cord injury Laura Sofia Carvalho
	Multiphasic electrospun and film-based dural substitute: cell-specific layer selection, watertight membrane engineering and in vivo biocompatibility Jean-Philippe Tosiani
	Development of a hydrogel-based sustained ocular drug delivery system for vitreous replacement in proliferative vitreoretinopathy Valentin Junge
	Injectable Zeolite Nanocrystals for Tumor Oxygenation and MRI Imaging Abdallah Amedlous
	Injection-Moldable Medical-Grade UHMWPE-Based Synthetic Biomaterials for Orthopedic Applications Dhrmendra Sablaniya
	Bench-to-bedside translation of Self-Healing colloidal hydrogels as Next generation design of Flowable Hemostatic Matrix: From Preclinical evaluation to Human Clinical Trials Huanan Wang
09:45	**Coffee break & Poster Session**
10:15 11:00	**International Award: Diego Mantovani (Queen Elisabeth Hall)** Chair: Maria Chatzinikolaidou & Elzbieta Pamula
	Biomaterials for Women's Health Bridging Gaps in Regenerative Medicine and Disease Modeling Ana Mora-Boza & Elena Martinez-Fraiz (co-chair)
11:00 12:30	**Engineering Adipo-Mimetic Niches and Microphysiological Systems to Model High Grade Serous Ovarian Cancer** Julien Gautrot
	Evaluation of microgravity-dependent alterations on ovarian follicles in an organ-on-a-chip system Melis Emanet Ciofani
	Engineering a 3D human peritoneal endometriosis model using self-assembling peptide hydrogel composites Raul Silva
	Evaluation of in vivo inflammation reaction induced by ascorbic acid 2-phosphate-releasing poly(L-lactide-co-ε-caprolactone) materials for pelvic organ prolapse applications Katri Ala-Mononen

Wednesday, 9th of September

Gorilla Room 4

11:00 12:30	**3D-Printable Biomaterials with Integrated Diagnostic Functionality** Kristýna Kolouchová
	Towards replacing animal models: a 3D in vitro bone model for breast cancer bone metastasis research Fatih Eroglu
	Matrix Stiffness Modulates Estrogen Receptor Signalling and Endocrine Therapy Response in Patient-Derived Breast Cancer Models Anu Thomas Koikalethu
	Biodegradable PLLA Platform for Curcumin Delivery in Breast Cancer: Evaluation in 2D and 3D Models Veronica Schiera
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
12:50 13:50	**CSBM-ESB (Okapi room 2) - Chair: Maria Raucci**
14:00 15:30	**Closing the loop green biomaterials and technologies for tissue engineering and regenerative medicine** Alice Zoso & Francesca Tivano (co-chair)
	Irene Carmagnola
	Tailored Resveratrol-loaded patches for chronic wound treatment Camilla Mazzanti
	Lignin nanoparticles: green tools to support tissue regeneration Matteo Felice Pezzuto
	Sustainable drug-releasing bacterial cellulose patch for antioxidant and antibacterial wound healing Francesca Tivano
	Bio-based injectable self-healing hydrogel from modified pectin and gelatin for chronic wound treatment Alice Zoso
	Bio-based antibacterial gelatin-alkali lignin membranes as multifunctional interfaces for soft tissue engineering Joana Silva-Correia
	Recombinant spider silk films for vascular tissue engineering Sofia Melo
	Geometric optimisation of 3D-printed auxetic meshes enabling lung-mimetic biaxial straining of collagen scaffolds Jiaer Chen
15:30 16:30	**Fellow's debate (Queen Elisabeth Room)**
16:30 17:00	**Coffee break & Poster Session**

Wednesday, 9th of September

Gorilla Room 4

	Bioengineered Platforms for Studying Environmental Toxicity Silvia Farè & Federico Vozzi (co-chair)
	Biomaterial-engineered in vitro platforms to investigate the impact of environmental pollutants on cardiovascular tissues Monica Boffito
	LbL nanocoating to improve biomimicry of aged cardiac tissue 3D models for cardiotoxicity screening Maria Antonia Cassa
17:30 18:30	**3D Bioprinted Fibro-Lung Model as tool to predict the mineral fiber-induced fibrosis** Elena Veronesi
	High-throughput neuro-nanotoxicity studies of manufactured nanomaterials with complex microfluidic blood-brain barrier models **Marie Celine Lefevre**
	A porous alveoli-like 3D lung model for investigating microplastic interactions with lung tissue Licia Chiudaroli
	3D engineered human cardiac tissues as platforms for cardiotoxicity assessment Elisa Pochettino
	Sacrificial scaffolds as a reproducible and scalable platform for perfusable microvascularized 3D tissue models Patrick Kuntschke
	Electrospun Fiber-Based Scaffolds for In Vitro Cardiac Tissue Modeling Irene Carmagnola
19:30 20:30	**YSF's Night Out (KAVKA, Oudaan 14, 2000 Antwerp)**

Wednesday, 9th of September

Darwin Hall

08:15 09:45	**Stimuli-responsive biomaterials and direct biophysical stimulation for regenerative medicine** Lorenzo Moroni & Henrique Vazão de Almeida (chair) & Carlotta Pucci & João Carlos Silva (co-chair)
	Engineering regenerative responses through controlled ultrasound stimulation and responsive materials Leonardo Ricotti
	A novel wireless nanobioelectronic systems to modulate breast cancer cells bioelectricity Frederico Castelo Ferreira
	Innovative biophotonic fibers with red upconversion emission for post-surgical light therapy and deep tissue stimulation Virginia Alessandra Gobbo
	Correlating magnetically targeted and physiological mechanostimulation to map functional domains of PIEZO channels Simão P. B. Teixeira
	Sustainable cellulose nanofibrils as ultrasound-driven piezoelectric interfaces for wireless neuromodulation Kjeld Kaj Klompmaker
	Independent control of elasticity and viscosity in an ELR-based hydrogel Sheila Lorenzo
	Electroactive biodegradable PHBV/SF patches for mechanically stimulated skin regeneration Diana Bogas
09:45	**Coffee break & Poster Session**
10:15 11:00	**International Award: Diego Mantovani (Queen Elisabeth Hall)** Chair: Maria Chatzinikolaidou & Elzbieta Pamula
11:00 12:30	**Soft material-based integrated platforms for biomedical applications** João F. Mano & Nathan Carpentier (co-chair)
	Elastin-like proteins containing heparin-binding domains for injectable hydrogels in cardiac tissue engineering Geert-Jan Graulus
	Programmable pH-responsive hydrogels for soft actuation and targeted lower-GI tract drug delivery Kenneth Cerdan Gomez
	Dynamics of Spontaneous Particle Folding Induced by Cells Rosana Martins
	A hydrogel system to support mechanically induced chondrogenesis Rosalia Cuahtecontzi Delint
	Design and characterization of animal-free scaffold for fat cultured food ingredients production Beatrice Sottini

Wednesday, 9th of September

Darwin Hall

	Development of a nanoparticle platform for topical nanogel delivery in junctional epidermoylis bullosa Thomas Dunne
11:00 12:30	**PVA-Based Wound Dressing Films Incorporating Quercetin-Loaded Chitosan Nanoparticles** Cansu Ülker Turan
	Physicochemical-informed Bayesian machine learning for the optimization of alginate methacrylation Pablo Ferri
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
12:50 13:50	**CSBM-ESB (Okapi room 2) - Chair: Maria Raucci**
	Biological macromolecules for the biofabrication of tissue-like microenvironments Rúben F. Pereira & Vitor Gaspar (co-chair)
	Human-derived proteins for the biofabrication of tissue-like structures João F. Mano
	Controlling Self-assembly in Protein-based Materials via Sequence Engineering and Post-processing Approaches Diego Lopez Barreiro
14:00 15:30	**Physioink: Platform for physiological bioinks to reproduce human extracellular matrix structure and composition** Tobias Weigel
	Pre-vascularized Skin Constructs as a Basis for Vascular Wall Engineering Lucie Bačáková
	Light-based 3D cell bioprinting: implications of bioink for an artificial skin prototype Leonor Resina
	Dual-functional GelMANB hydrogels crosslinked with thiolated elastin with tunable mechanics for volumetric bioprinting Robbert Willemarck
	Shaping biomaterials: Optimization of a novel fibrillar collagen ink for 3D bioprinting Nunzia Gallo
15:30 16:30	**Fellow's debate (Queen Elisabeth Hall)**
16:30 17:00	**Coffee break & Poster Session**

Wednesday, 9th of September

Darwin Hall

17:30 18:30	**Beyond Methacrylates Advanced Chemistries for Dynamic, Bioactive Hydrogels** Oscar Castano-Linares & Shane Browne (co-chiar)
	Interactive and anisometric colloidal building blocks for regenerative medicine and tissue engineerin Laura De Laporte
	Engineering Dynamic Covalent Hydrogels: Impact of Polymer Architecture and Multivalency on Functional Properties Saurabh Joshi
	Sacrificially templated multiscale porous 3D bone models using photo-crosslinkable star-shaped polymers for cell-driven vascularisation Emircan Sert
	Development of tissue-like microenvironments using dynamic cell-crosslinked hyaluronic acid based hydrogels Martina Konecna
	Combining Light-Based Chemistries with Supramolecular Biomaterials for Tissue Engineering Applications Thibault Sampon
	Dynamic hydrogels enable volumetric bioprinting of functional iPSC-derived heart constructs for in vitro cardiac modelling Paulina Nunez Bernal
	Development of Boronate Ester-based Biomaterial Inks for 3D Bioprinting: Correlating Rheology and Printing Himanshi Tewari
	Thiol-ene PEG-Tuned HA-Norbornene Hydrogels Enhance Brain Organoid Diffusion and Maturation Anna Vilche
19:30 20:30	**YSF's Night Out (KAVKA, Oudaan 14, 2000 Antwerp)**

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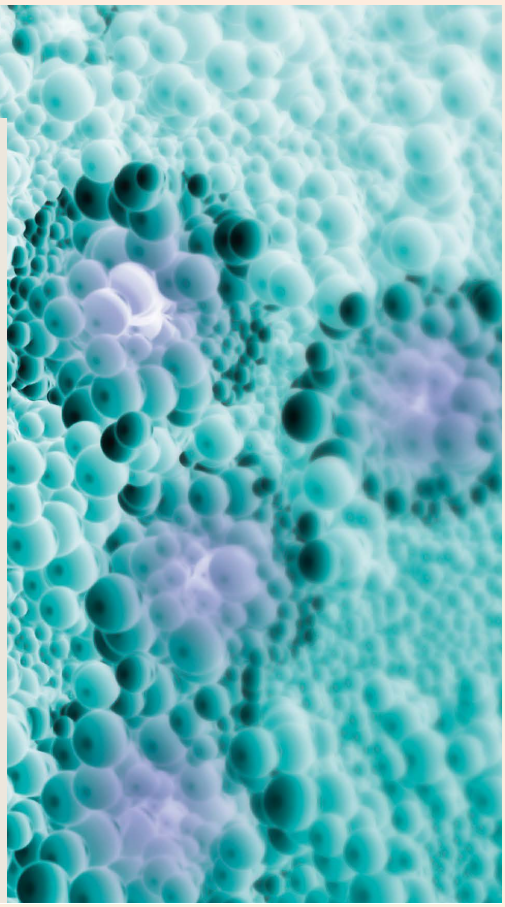

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Wednesday, 9th of September

Gorilla 5

08:15 09:45	**Designing Functional Biomaterials through Nano Micro-Building Blocks for Targeted Cancer Therapy and Regenerative Application** Hajar Homa Maleki & Svetlana Mintova, & Vahid Shafiei (co-chair)
	Hajar Homa Maleki
	pH-responsive nanoparticle-coated calcium phosphate granules for bone cancer therapy Lei He
	Multifunctional injectable silk-based hybrid hydrogel enabling localized hydrogen-assisted osteosarcoma therapy and subsequent bone defect repair Vahid Shafiei
	Selenium and Magnesium Functionalised Collagen Based Scaffolds for Dual Bone Regeneration and Anti-Cancer Therapy Eavan Pakenham
	MnO2-Based Multifunctional Nanostructures for Targeted Synergistic Photodynamic, Photothermal, and Starvation Therapy Ghazaleh Azizi Saadatlou
	Biomimetic dual-stimuli nanocarriers for targeted cancer therapy Alessia Pancaro
	Development of Navigator Polymers for Recruiting Tumor-Associated Macrophages and Promoting Cancer Cell Phagocytosis Reina Funatomi
	Designing Functional Biomaterials through Nano Micro-Building Blocks for Targeted Cancer Therapy and Regenerative Application Lukasz Skowroński
09:45	**Coffee break & Poster Session**
10:15 11:00	**International Award: Diego Mantovani (Queen Elisabeth Hall)** Chair: Maria Chatzinikolaidou & Elzbieta Pamula
11:00 12:30	**Medical device design and engineering** María Rosa Aguilar & Mariola Cano Morenilla (co-chair)
	Supramolecular hydrogels: from biomedical applications to unpredicted phenomena Patricia Dankers
	Electrospun Polyhydroxyalkanoate Membranes for Transcutaneous Luminescent Gas Sensing Emma Akpo
	Prototype Development: Phononic Material for Focused Electromechanical Neuromodulation Pravin Bhattarai
	Kink-resistant, compliant textile grafts for peripheral arterial occlusion disease Karl Schneider
	An Electrospun PLGA-Hyaluronic Acid Symatix® Platform for Consistent and Scalable Soft Tissue Regeneration Farnaz Ghorbani
	Reducing Dose, Enhancing Contrast: Biodegradable Dendrimers for CT Stroke Imaging Duarte Silva

Wednesday, 9th of September

Gorilla 5

12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
12:50 13:50	**CSBM-ESB (Okapi room 2) - Chair: Maria Raucci**
14:00 15:30	**Engineering Functional Tubular Tissues: From Urethral Reconstruction to Vascularized Biofabricated Grafts** Petra de Graaf & Pablo Pennisi (co-chair)
	Clinical Perspective on Tissue Engineering for Urethral Reconstructive Surgery Petra De Graaf
	Coordinated epithelial–stromal regeneration for urethral repair using advanced polymeric scaffolds Susanna Miettinen
	From Donor Tissue to Graft: Decellularization of Human Urethra for Organ-specific Reconstruction Jays Sueters
	Creating modular tubular networks with tomographic volumetric additive manufacturing for branched small diameter vascular models Michael Bartolf-Kopp
	Material extrusion-based additive manufacturing of gelatin-based hydrogels for urethral tissue engineering Kartikeya Dixit
	Matrix architecture governs urethral organoid fate: phenotypic responses across soft, stiff, and porous collagen type I substrates Isabelle Martinier
	Dual vascularization: engineering a 3D perfusable vascular model integrating blood and lymphatic vessels Emilie Vonna
15:30 16:30	**Fellow's debate (Queen Elisabeth Hall)**
16:30 17:00	**Coffee break & Poster Session**

Wednesday, 9th of September

Gorilla 5

17:30 18:30	**Novel treatment approaches for nerve repair and functional regeneration** Srinivas Madduri & Antonio Salgado (co-chair)
	Cell Secretome and Biodegradable Biomaterials for Nervous Tissue Regeneration Antonio Salgado
	Bioengineering Hope: Emerging Technologies for Nerve Gap Regeneration Srinivas Madduri
	In vivo Validation of a 3D ex vivo Nerve Injury Model Caroline Taylor
	PSC neural differentiation on biostable sulfuric acid-treated PEDOT:PSS under electrical stimulation Fábio Garrudoi
	Dynamic Alginate-Based Hydrogels for Modulating Neural Cell Function Anna Mariano
	Multifunctional Chitosan/Cellulose Neural Interfaces with Tunable Electrochemical Properties Meera Alex
	Using natural crosslinker alternatives to modulate bone-ECM hydrogel characteristics Joshua Jones
19:30 20:30	**YSF's Night Out (KAVKA, Oudaan 14, 2000 Antwerp)**

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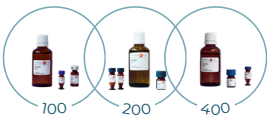

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Thursday, 10th of September

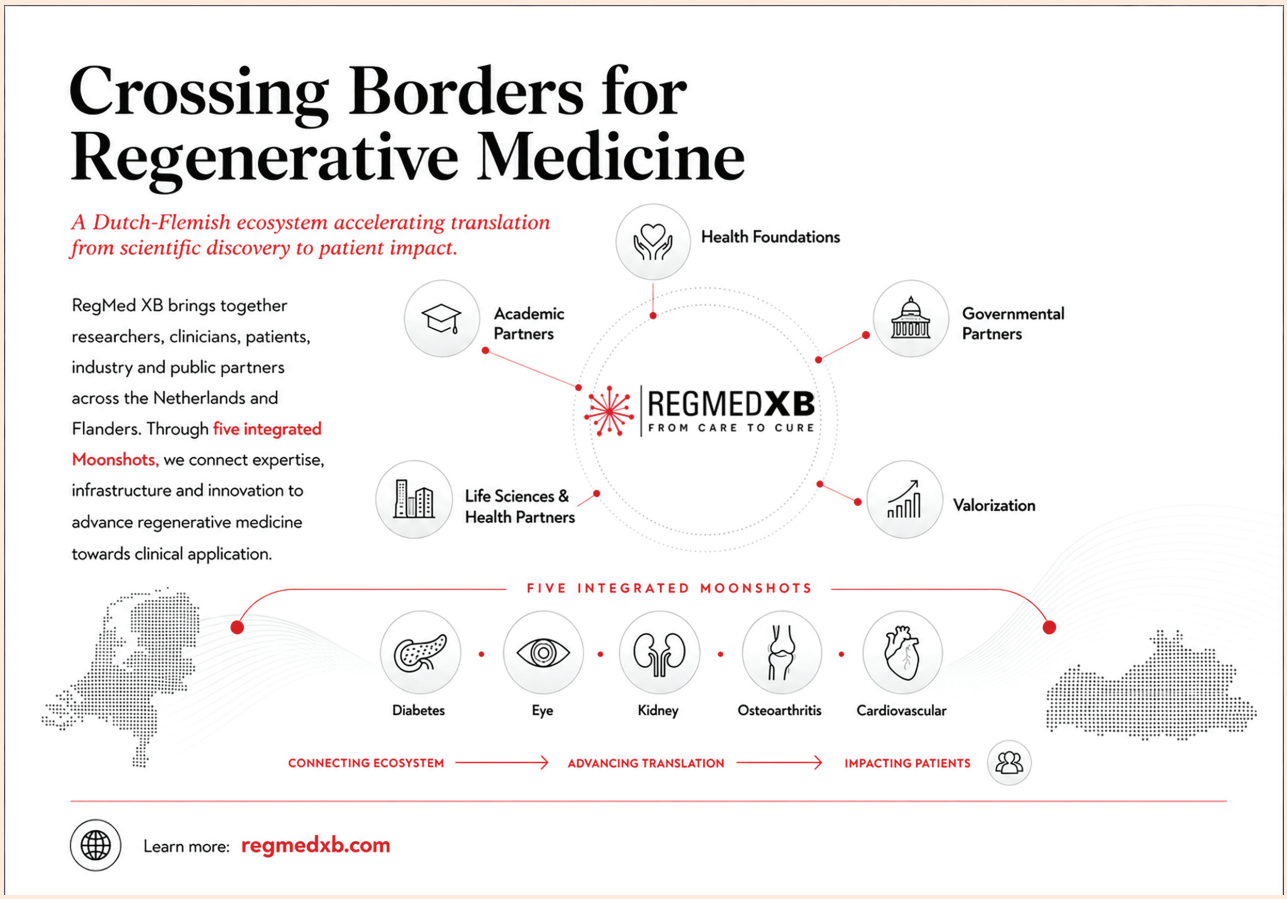
Queen Elisabeth Hall

	Biomaterial-driven tissue regeneration and aging Riccardo Levato & Johannes Windisch (co-chair)
	Programming physical cues to direct cellular function Khoon S. Lim
	3D printed Ti6Al4V TPMS bone-analogues: bridging mechanical asymmetry and in vivo osseointegration Bijay Kumar Karali
	3D-Printed photoactive pectin–silk fibroin film for skin wound healing Sofia Joaquinito
08:15 09:45	**Exploring bioactive scaffolds in Spinal Cord Injury rat models targeting neuroinflammation and regeneration** Julia Martínez
	An elastic and degradable blood vessel graft to regenerate damaged arteries Robert Hume
	Lytamer-containing layer-by-layer constructs enhance the migratory capacity of fibroblasts from aged diabetic patients Diana Soares da Costa
	Biodegradable Wound Dressing Using a Synergistic Micro- and Nano-Architecture of Silica Gel and Poly(3-hydroxybutyrate) for Tissue Regeneration, as a platform technology for hydrophobic drugs: Evaluation in a 3D In Vitro Full Thickness Skin Model Katja Nadler
09:45	**Coffee break & Poster Session**
10:15 11:00	**Jean Leray Award: Małgorzata Włodarczyk-Biegun** (chaired by Mirosława El Fray & Peter Dubruel)
	Biomaterials across Tissues and Diseases Khoon S. Lim & João Borges (co-chair)
	Light-based bioprinting to pattern materials and guide cell behavior Riccardo Levato
	Non-vascularized abdominal rectus fascia as a natural biomaterial for cross-disciplinary soft-tissue reconstruction Ewout Muylle
11:00 12:30	**Modulation of oxidative stress in cardiac fibrosis through chitosan hydrogels** Alice Zoso
	Dual-detectable nanoparticles for tracking cell fate in autoimmune diseases Luis García-Fernández
	Next-Generation Gelatin-Alginate Cryogels Coated with Dopamine and Combined with TGF-β and FAK Inhibitors for Effective Hypertrophic Scar Management Elena Diana Giol

Thursday, 10th of September

Queen Elisabeth Hall

	Zwitterionically modified guar gum for 3D bioprinting of anti-biofouling cell-laden biomaterials Ahmed Swilem
11:00 12:30	**Recreating the Liver Microenvironment with Human-Derived Biomaterials** Maria Lobo
	From Scientific Innovation to a Viable Product Danielle Trappenburg
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:00	**ESB General Assembly (Queen Elisabeth Hall)**
15:00 16:30	**Session: Panel anniversary** Liz Tanner and Gino Ambrosio
16:30 17:00	**Coffee break & Poster Session**



Thursday, 10th of September

Queen Elisabeth Hall

17:00 18:40	**Biomaterials for Soft Tissue and Organ Regeneration** Paul Delrot & Caroline S Taylor (co-chair)
	Lessons Learned and Critical Challenges in Advancing Adipose Tissue Engineering Petra Kluger
	DLP-Based 4D Printed Hydrogel for Soft Tissue Engineering Tejaswini Tadge
	Engineering Regenerative Niches for Intestinal Therapy via Encapsulation of iPSC-Derived Mesenchymal Stem Cells in Synthetic Degradable Microgels Ana Mora-Boza
	Therapeutic Ion Releasing Fluorophosphate Glass for Ischemic Wound Care Mareeswari Balasubramanian
	Towards Semi-Synthetic Liver-Like Tissues Paula de Dios Andres
	Alginate/Gelatin/Silk Fibroin-Containing Patches Protect Against Myocardial Infarction-Mediated Reduction in Cardiac Function in a Murine Model Carmine Gentile
	Sustainable Acellular Fish Skin Biomaterial with Preserved Lipid Reservoirs Carlos Marinho Botelho
	Multifunctional Plasmonic Hydrogels as Tunable Biomaterials for Mechanobiology of Myogenic Cells Peixi Peng
20:00 ...	**Gala Dinner (Horta, Hopland 2, 2000 Antwerp - other venue)**

Thursday, 10th of September

Okapi Room 2

08:15 09:45	**From Bioactive Materials to 3D-Printed Solutions: Advancing Spinal Fusion and Back Pain Therapies** Miguel Dias Castilho & Niloofar Tahmasebi Birgani & Thibault Sampon (co-chair)
	Pathology- and patient-adapted spinal materials and implants Cecilia Persson
	Xenogeneic Spinal Cord ECM Bioink for 3D Printing Application to Restore Sensorimotor Function Through Axonal Reconnection in Rat Complete Spinal Cord Transection Leena R Chaudhari
	Comparative Analysis of Simulated Degeneration Strategies for the Development of Intervertebral Disc Biomaterial Francesca Todescato
	Bioactive and Load-Bearing Calcium Phosphates for Developing Biomimetic Spine Fusion Implants Beatrice Francesca Massel
	ROS-Responsive Hydrogen-Releasing Scaffolds for Sustained miRNA Sponge Delivery in Spinal Cord Injury Wan Chi Pan
	Electrically Conductive Nanocomposite Silk Fibroin Hydrogel for Spinal Cord Injuries Repair Stefania Benazzato
	Placenta-derived ECM as a Bioinstructive Biomaterial for Spinal Cord Tissue Engineering Xavier Barceló
09:45	**Coffee break & Poster Session**
10:15 11:00	**Jean Leray Award: Małgorzata Włodarczyk-Biegun** (chaired by Mirosława El Fray & Peter Dubruel)
11:00 12:30	**Antimicrobial Biomaterials and Biocoatings** Martin Birkett & Cecil Cherian Lukose (co-chair)
	Targeting Oral Biofilms: Biomaterial-Based Approaches for Modern Dental Therapies Sanjukta Deb
	Antimicrobial Materials for Biomedical Applications: From Personal Protective Equipment to Implantable Devices Ángel Serrano-Aroca
	Borosilicate-based Bouncy Bioglass with antimicrobial properties Toby Lam
	Degradable PLGA coatings incorporating organometallic complexes for controlled antibacterial activity on implants Deshani Gamage
	Lights On, Resistance Off? Investigating Bacterial Resistance to Light-Activated Graphene Inês Gonçalves

Thursday, 10th of September

Okapi Room 2

12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:00	**ESB General Assembly (Queen Elisabeth Hall)**
15:00 16:30	**Smart Biomaterials and Bio-adhesives to Combat Pathogenic Microbes** Jacek Wychowaniec & Sonia Gera
	Assembling Peptides: A Chemical Toolbox for the Design of Bioactive Nanomaterials Mohamed Elsawy
	Multifunctional albumin and bioactive glass-based bio-adhesives for bone regeneration and antimicrobial applications Sonia Gera
	KR-12 functionalised collagen as an antimicrobial biomaterial ink for bone regeneration Estefanía Echeverri
	Mesoporous Bioactive Glasses as Carrier Systems for Local Bacteriophage Delivery in Implant-Associated Infections Anja Lode
	An anti-microbial and pro-healing hyaluronic acid dressing to promote diabetic wound healing Shane Browne
	Cellulose nanofibers as a platform for 3D-printed scaffolds for tissue engineering and Zn-functionalized wound dressings with antibacterial activity Maria Pita-Vilar
	Selenium-Loaded Mesoporous Bioactive Glass Nanoparticles as a Bioactive Filler in 3D-Printed Hydrogel Scaffolds for Bone Infection Treatment Anna Rubia
16:30 17:00	**Coffee break & Poster Session**
17:00 18:40	**Sustainable, Green, and Circular Biomaterials** Sanjukta Deb & Mauro Di Stasi (co-chair)
	Sustainable polyaspartic ester coatings for antifouling and antibacterial applications Katrien Bernaerts
	Plant-Derived Glycoprotein Bioink for 3D Bioprinting and Soft Tissue Regeneration Sonali Garje
	Non-Cytotoxic Binary Mixtures of Cationic Nanoparticles and Polymer Chains Kill Polymicrobial Communities Hubert Buksa
	Cerium-crosslinked Porphyridium cruentum EPS/bone ECM composite gels for injectable and moldable bone regeneration Marta Duarte
	Marine-inspired hydrogels for treatment of diabetic chronic wounds Cátia Correia

Thursday, 10th of September

Okapi Room 2

08:15 09:45	**The response of human pulmonary cells cultured on cellulose-based membranes under physiological fluid shear stress – a focus on artificial lung applications** Thomas Fruleux
	From waste to high-value biomaterial: gellan gum hydrogels enriched with pomegranate peel extract for cartilage regeneration Francesco Busto
20:00 ...	**Gala Dinner (Horta, Hopland 2, 2000 Antwerp - other venue)**

Thursday, 10th of September

Okapi Room 3

	Advancing Biomaterials through Biointerfacial Reaction Mechanisms Takuya Matsumoto & Mako Kobayashi (co-chair)
	Carbonated Apatite as a Platform for Stem Cell-Based Regenerative Medicine Kunio Ishikawa
	Coupling-agent-free biofunctionalization of nitinol stent retrievers to enhance thrombus engagement in mechanical thrombectomy Diane Guyot
	Effect of Residual Alumina Particles after Blasting on Apatite Formation and Osteoblast Activity on Titanium Surfaces Ayano Ogura
08:15 09:45	**Improving Ion Release Properties of Iodine-Containing Calcium-Deficient Calcium Titanate for Simultaneous Osteogenesis and Antibacterial Activity** Seiji Yamaguchi
	An Extracellular Matrix–Based Blood–Brain Barrier Model for Evaluating Nanoplastic Toxicity Mako Kobayashi
	Protein Adsorption and Macrophage Responses for Nanoparticles with Different Oxidation Degrees Masaya Yamamoto
	Spontaneous macrophase separation strategy for fabricating bilayer hydrogels with seamless interfaces and programmable biointerfacial structures Jie Zheng
	Bypassing endocytosis for DNA delivery using amphiphilic phospholipid-mimetic polymers Tatsuro Goda
09:45	**Coffee break & Poster Session**
10:15 11:00	**Jean Leray Award: Małgorzata Włodarczyk-Biegun** (chaired by Mirosława El Fray & Peter Dubruel)
	Precision Polymer Chemistry as a tool to modulate biological and biomedical functions Anna Finne Wistrand & Daniela Pappalardo (co-chair)
	Mechanical Control of Molecular Recognition and Bioactivity in of Peptide Rotaxanes and Polyrotaxanes Fredrik Schaufelberger
11:00 12:30	**Interactive endothelium-mimicking nanocoatings enable anticoagulation-free hemocompatibility in artificial placenta systems** Esra Kasapgil
	Engineered polymer carriers integrated with Lab-on-Fiber photonics for light-controlled locoregional drug delivery Anna Aliberti
	Bio inks as the key to reproducible biofabrication Jasper Van Hoorick

Thursday, 10th of September

Okapi Room 3

11:00 12:30	**Electrospun P3HB fibers functionalized with hesperidin for skin regeneration** Elena Coccia
	Starch-hydroxyapatite composite biomaterials with hierarchical porosity Sijtze Buwalda
	Protein nanofiber resins for 2PP fabrication of immostimulatory microswimmers Sophie Jermyn
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:00	**ESB General Assembly (Queen Elisabeth Hall)**
15:00 16:30	**Implants in orthopaedics** Louise Jennings & Lillian Zhang (co-chair)
	PEEK based implants in orthopaedics Ruth Cameron
	The importance of the surface of implants to successful outcomes Geoff Richards
	Mapping the effects of chamber and extruder temperatures on PEEK sheet gyroid lattice properties for medical implants Aditya Nandakumar
	A finite element study on the primary fixation of a cementless PEEK tibial component in total knee arthroplasty using a gyroid porous metaphyseal stem Huijie Lillian Zhang
	Wear performance of an all-polymer total knee replacement Raelene Cowie
	A finite element study on the primary fixation of a cementless PEEK tibial component in total knee arthroplasty using a gyroid porous metaphyseal stem Huijie Lillian Zhang
	Bioactive Scaffolds for Optimizing the Soft Tissue–Prosthesis Interface Ilaria Sergio
16:30 17:00	**Coffee break & Poster Session**

Thursday, 10th of September

Okapi Room 3

	In Vitro, In Vivo, and Preclinical Evaluation of Biomaterials Ruth Cameron & Oihane Mitxelena Iribarren (co-chair)
	A Cell-Centric Perspective on Biomaterials: From Cellular Diversity to In Vitro Tendon Models Catharina De Schauwer Heli Skottman
15:00 16:30	**A Resorbable and Biomimetic 3D-Printed Hydrogel Scaffold Driving Large-Volume Soft Tissue Repair: Evidence from a Large Animal Study** Audrey Cherblanc
	A multifunctional millifluidic imaging window for intravital biomaterial validation in living chicken embryos Leonardo Cherubin
	A Paper-Based Platform for Skin-on-Chip Modeling of Psoriasis Stephany Beyerstedt
20:00 ...	**Gala Dinner (Horta, Hopland 2, 2000 Antwerp - other venue)**

Thursday, 10th of September

Gorilla Room 1

08:15 09:45	**Bioinspired and Biomimetic Materials** Heinz Redl & Ana Rita Araujo (co-chair)
	Collagen Rope Trick: Cell-Laden Collagen Fibre Assembly at Liquid Interfaces Michiya Matsuaki
	Engineering the Spleen: Photocrosslinkable Hydrogels for Volumetric Bioprinting of a Red Pulp–Inspired 3D Microenvironment Mariana Magalhães
	From Quince Seeds to Osteo-Dental Regeneration: QSM/nHAp Scaffolds for Mandibular Repair Hilal Yılmaz-Dagdeviren
	Recombinant spider silk-enriched alginate scaffolds for long-term bovine mesenchymal stem cell expansion Tali Tavor Re'em
	Nanostructured bioceramic surfaces potentiate antibiotic efficacy against P. aeruginosa Jan Grzelak
	Bio-Mechano-Compatible Electrospun Scaffold as External Support to Prevent Autograft Dilatation in the Ross Procedure Mariana Reis
	Elastin-Like Polypeptide Extracellular Matrix Mimics for Artificial Skin Models Margaux Rodriguez
09:45	**Coffee break & Poster Session**
10:15 11:00	**Jean Leray Award: Małgorzata Włodarczyk-Biegun** (chaired by Mirosława El Fray & Peter Dubruel)
11:00 12:30	**Bioinspired and Biomimetic Materials (II)** Michiya Matsusaki & Mirosława El Fray (co-chair)
	More than 50 years of Fibrin-based biomaterials Heinz Redl
	ECM derived Matrix Bound Nanovescicole: an innovative biomaterial in TERM Dalila Di Francesco
	Development of the next-generation of biomaterials through glycan-functionalized polyethylene glycols Amir Abdo
	Design of a Targeted Peptide Nanocarrier for Nucleic Acid Delivery Helen McCarthy
	Bakht Liquefied-Core Microcapsules as a Platform for In Vitro Endochondral Ossification Syeda Mahwish
	Bone-guided biomaterials to modulate nerve-bone crosstalk during regeneration Maria Ribeiro
	Lignocellulosic material blend for melt electrowriting to alter mechanical and bacterial properties Michael Bartolf-Kopp

Thursday, 10th of September

Gorilla Room 1

12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:00	**ESB General Assembly (Queen Elisabeth Hall)**
15:00 16:30	**New Materials and Applications for Volumetric Bioprinting** Kenny Dalgarno & Julia Siminska-Stanny (co-chair)
	Advanced Tomographic 3D Printing: Fundamentals and recent developments Paul Delrot
	Volumetric bioprinting of cell-laden GelMA biomaterials for biomimetic modelling of vulnerable atherosclerotic plaques Kenny Dalgarno
	One-step spatial photo-programming of cell alignment in 3D patterned hydrogels via grayscale light-sheet volumetric bioprinting Gerardo Cedillo-Servin
	MartinFilamented Light 3D Bioprinting Enables Anisotropic Stiffness Gradients for Controlled Vascularisation Lino Prados Martin
	Chemically modified gelatin-based hydrogels for the volumetric printing of stents for mucosa regeneration Rui Pedro Silva
	Radiopaque volumetrically printed PCL scaffolds for real-time in vivo degradation monitoring Astrid Quaak
	Origami-inspired shape-memory stents fabricated via volumetric 3D printing of poly(δ-valerolactone) Antonio Jaen Ortega
	Volumetric bioprinting of gelatin-based inks for osteochondral tissue engineering Hannah Agten
16:30 17:00	**Coffee break & Poster Session**

Gorilla Room 1

15:00 16:30	**Biomaterial-Engineered Microphysiological Systems for Disease Modeling and Regeneration** Manuela E Gomes
	Magnetic Spheroids as Innovative Platforms for Musculoskeletal Tumor Modelling and Therapy Manuela E Gomes
	Volumetrically Printed Porous Hydrogels as Tissue-Mimetic Platforms for Ultrasound-Enhanced Drug Delivery Julia Stanny
	Chemically modified decellularized extracellular matrix combined with a microfluidic chip to model the early stages of pancreatic tumorigenesis Agathe Neukelmance
	Dormancy-inducing 3D engineered matrices to model breast cancer dormancy across scales: the role of adhesion and stiffness in ER+ luminal breast cancer cell lines and patient-derived models Amaia Cipitria
	An Alternative Supercritical CO_2 Decellularization Approach for Breast Tissue-Derived Cancer Models Uxia Gato-Diaz
20:00 ...	**Gala Dinner (Horta, Hopland 2, 2000 Antwerp - other venue)**

Thursday, 10th of September

Gorilla Room 3

	Bioadhesives – Strengthening the Bond Marc Bohner & Kristýna Kolouchová (co-chair)
08:15 09:45	**From Formulation to Preclinical Translation: A Bioinspired Calcium Phosphate Adhesive for Fragility Fracture Repair** Nicholas Dunne
	Multicomponent Reaction-Derived Self-Healing Bioadhesives for Treatment of Chronic Wounds Ronak Afshari
	Volumetric additive manufacturing of cell-loaded hydrogel adhesives for hard-to-soft tissue interfaces Alexander Nottegar
	The role of a phosphoserine-modified calcium phosphate adhesive in augmenting osteoclast response and bone remodelling John Redmond
	Lubricating nanoparticles with sheltered cationic charges maintain cartilage adhesion and lubrication William Austin
	A Mucoadhesive Hydrogel Stent Approach for Managing Esophageal Mucosal Ulcers Mariana Zarur
	Bioinspired pullulan-based adhesive coacervate films for targeted buccal delivery of peptides Margarida Sacramento
	Electroactive poly (L-lactic) acid thin films as platforms for modulation of PC12 cells Marta Fernandes
09:45	**Coffee break & Poster Session**
10:15 11:00	**Jean Leray Award: Małgorzata Włodarczyk-Biegun** (chaired by Mirosława El Fray & Peter Dubruel)
11:00 12:30	**EU Clustering Session** Giovanni Vozzi
	Bart Spee, Heli Skottman, Pablo Pennisi, Irene Chiesa, Daniel Kelly, Giulia Leonetti and Giovanni Vozzi
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:00	**ESB General Assembly (Queen Elisabeth Hall)**

Thursday, 10th of September

Gorilla Room 3

15:00 16:30	**Composite and Hybrid Biomaterials** Nicholas Dunne & Patrycja Domalik-Pyzik (co-chair)
	Multiphoton Lithography for Bioinspired Composite and Hybrid Biomaterials: From Architecture to Function Mirto Charitaki
	Inorganic-organic hybrid coatings with siderophore-like activity Teresa Matlak
	Polysaccharide-based dressing enriched with zinc oxide nanoparticles and bacitracin for infected wound treatment Elżbieta Pamuła
	Plasmonic granular hydrogels for 3D printing breast cancer models and monitor cell behaviour by Surface-Enhanced Raman Spectroscopy (SERS) Lara Troncoso Afonso
	Magnetoelectric GelMA-Graphene Hydrogels for Remote Cardiac Stimulation and Sensing Jose Manuel Garcia Torres
	Development of hybrid nanodevices based on Chitosan/Hyaluronic acid/Folic acid-Carbon Dots for the treatment of lung infections Giuseppe Marino
	Warp-Knitted Spacer Fabrics as Reinforcement for Hydrogels in Tissue Engineering Leonie Hoffmann
16:30 17:00	**Coffee break & Poster Session**
17:00 18:40	**Industrial session: Clinical Adoption of 3D Printing: Successes, Challenges, and Lessons Learned** Matteo d'Este & Yves Bayon
	Invited speakers: Philip Blondeel, Jasper Van Hoorick, Lorenzo Moroni + round table discussion
20:00 ...	**Gala Dinner (Horta, Hopland 2, 2000 Antwerp - other venue)**

Thursday, 10th of September

Gorilla Room 4

08:15 09:45	**Beyond Biocompatibility Advanced Biomaterials for Therapy and Repair the DAEDALUS and HYDROHEAL Projects** Giovanni Vozzi & Piergiorgio Gentile (co-chair)
	Bioinspired biomineralized biomaterials with antimicrobial properties for hard tissue regeneration Conrado Aparicio
	Tuning the synthesis of methacrylated alginate hydrogels for enhanced bone regeneration Ignacio Reinal
	Stimuli-responsive composite hydrogels for the treatment of vertebral and alveolar fractures Chiara Tonda-Turo
	Bio-orthogonally cross-linked alginate-based hydrogel for bone tissue engineering Daniel Salthouse
	Lipidcomposite microspheres (LCM) by CryoXpand® technology: biocompatible carriers for statins delivery in bone tissue regeneration Pierandrea Esposito
	Hemidesmosome-Promoting and Antimicrobial Peptide Nanocoatings for Transepithelial Titanium Implants: Evaluation in a Post-Infection Co-Culture Model Daniel Moreno Duarte
	Design of an interoperable digital repository of structured and contextualized hydrogel experimentation Daniel Sánchez García
	Star-shaped PEG-PLA copolymer/ Gelatin hydrogels for tunable layered materials in colorectal tissue regeneration Justine Montassier
09:45	**Coffee break & Poster Session**
10:15 11:00	**Jean Leray Award: Małgorzata Włodarczyk-Biegun** (chaired by Mirosława El Fray & Peter Dubruel)
11:00 12:30	**Women Leading Innovation Bridging Science, Career, and Equity across Continents in Biomaterials** Ana Paula Rosifini & Ana Paula Pêgo (co-chair)
	Dare to Dream, Courage to Build: An Asian Woman's Journey in Biomaterials and Beyond Geetha Manivasagam
	Gender Equality in Research and Innovation: A LATAM Perspective on Biomaterials Ana Paula Rosifini
	Beyond Research Outputs: Building Careers, Communities, and Equity in European Biomaterials Ana Paula Pêgo
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:00	**ESB General Assembly (Queen Elisabeth Hall)**

Thursday, 10th of September

Gorilla Room 4

15:00 16:30	**Ethical by design Designing biomaterials for replacement, reduction and refinement** Zarah Walsh-Korb (co-chair)
	Engineering tuneable, animal-free, biomaterial scaffolds for 3D cell culture Zarah Walsh-Korb
	From food to animal-free in vitro testing: engineering photocrosslinkable gastric-dECM materials Francesca Perin
	Multicellular bone tumour microenvironment platforms for high-content imaging analysis and drug screening Nathalie Bock
	Investigating the effects of electrical stimulation on the motility and morphology of glioblastoma cells in vitro for improved engineered glioblastoma in vitro cell models Daniela Duc
	Pulsed electromagnetic fields (PEMF) reduce inflammation and immune cell recruitment in an in vitro osteoarthritis model Federica Ferla
	Evolving strategies in organ-on-a-chip technologies enabled by human-derived biomaterials integration Cátia Monteiro
	Integrating microfluidics and Layer-by-Layer assembly for the development of scalable RNAi nanocarriers targeting PTSD Mares Bou Sofia
	PDAC-on-hand — a microfluidic device for drug screening Chiara Tonda Tura
16:30 17:00	**Coffee break & Poster Session**
17:00 18:40	**Ceramic and Glass Biomaterials** Zarah Walsh-Korb & Fatih Kurtuldu (co-chair)
	Scaling Nanostructured Materials for Advanced 3D Tissue Biofabrication and Therapeutic Applications Oscar Castaño Linares
	Magnetic mesoporous bioactive glass nanoparticles co-doped with cobalt and boron for angiogenic and osteogenic stimulation Martin Michálek
	Cytotoxicity Reduction of Iron Nitride Particles via Oxidation Soichiro Usuki
	In-solution manufacturing of versatile porous phosphate-based glasses for hard and soft tissue regeneration Charlea Berry
	Molybdenum-copper co-doped mesoporous bioactive glass nanoparticle-coated PCL scaffolds for osteomyelitis treatment and bone regeneration Julia Ce de Andrade
20:00 ...	**Gala Dinner (Horta, Hopland 2, 2000 Antwerp - other venue)**

Thursday, 10th of September

Darwin Hall

08:15 09:45	**Emerging Biomaterials and Fabrication Technologies for Soft Tissue Regeneration** Maria Elisabete Silva & Joana Martins (co-chair)
	Antimicrobial biodegradable mesh implants produced by melt electrowriting for pelvic organ prolapse repair Elisabete Silva
	Experimental and Computational Optimization of Melt-Electrowritten Polycaprolactone Scaffolds for Hydrogel Encapsulation in Pelvic Organ Prolapse Repair Ana Telma Silva
	Taming biodegradation in peptide-crosslinked hydrogels Katrijn Kelchtermans
	Medical Lace Embroidery: Designing Structural and Mechanical Heterogeneity in Biotextiles Cindy Elschner
	Engineered oxygen-delivery particles for advanced colorectal tissue engineering Eleonora Marta
	Enhancing Polyvinyl Alcohol hydrogel stiffness via thermal and mechanical treatments for soft tissues repair Marta Confalonieri
	Recombinant Elastin-Like Polymer-Based Basement Membrane for Tissue-Engineered Skin Regeneration Raúl Escribano
09:45	**Coffee break & Poster Session**
10:15 11:00	**Jean Leray Award: Małgorzata Włodarczyk-Biegun** (chaired by Mirosława El Fray & Peter Dubruel)
11:00 12:30	**AI-Integrated Approaches for Next-Generation Tissue Regeneration** Sandra Pina & Miguel Oliveira (co-chair)
	Juan Antonio Marchal
	Digital twin and machine learning pipeline for the microfluidic generation of mineralized gellan-alginate microgels for osteochondral tissue engineering Stanisław Marecik
	Optical Tomography enables Density Based Adaptive and Context-Aware Volumetric Printing Riccardo Levato
	Preserving myoblast viability in extrusion bioprinting: An FEM-driven machine learning surrogate for extrusion parameter optimization Zahed Tavangari
	Morphology-aware machine learning framework for predicting nanoparticle transfection efficiency across cell types Saba Kamaliasl

Thursday, 10th of September

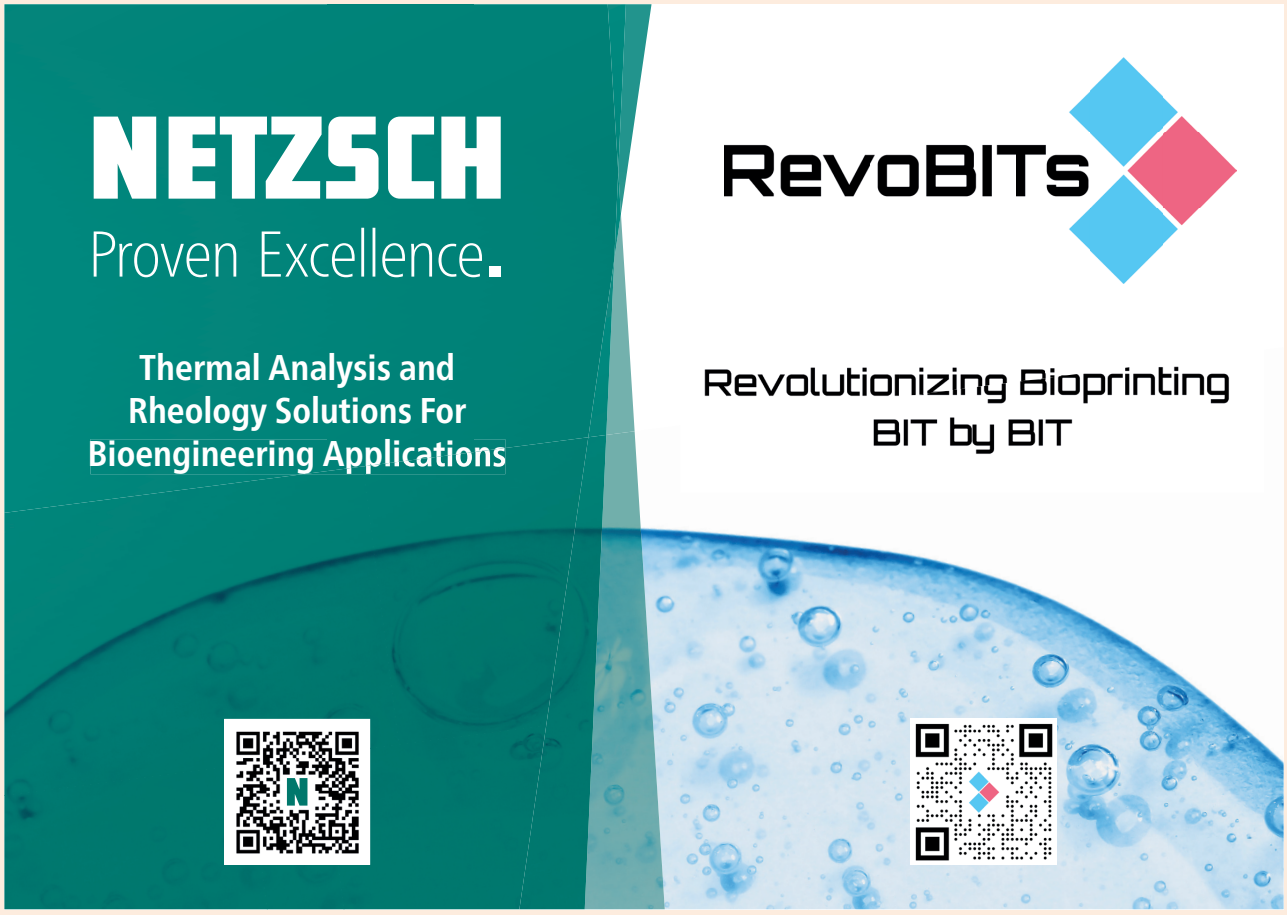
Darwin Hall

	AI-driven analysis of pore geometry–dependent mineralization in silk fibroin scaffolds using synchrotron imaging Greta Dei Rossi
	Morphology-driven cell sorting based on AI inference enriches dental pulp stromal cells for regenerative tissue engineering Ding Yuan
12:30 14:00	**Lunch & Poster Sessions (13:00-14:00)**
14:00 15:00	**ESB General Assembly (Queen Elisabeth Hall)**
15:00 16:30	**Smart and Stimuli-Responsive Biomaterials** Juan Antonio Marchal & Virginia Alessandra Gobbo (co-chair)
	Tina Vermonden **Programming via printing: single-step fabrication of shape-morphing biomaterials for mechanobiology and tissue engineering** Jay Henderson
	Ionomeric Extracellular Matrices for Dynamic Tissue Engineering Matthew Burgess
	4D bioprinting of photo-curable polymers for the fabrication of self-folding structures Gabriele Maria Fortunato
	Electroactive polysaccharide-based hydrogels: targeting stimuli responsive biomaterials for biotechnological applications Maria M. Pérez-Madrigal
16:30 17:00	**Coffee break & Poster Session**

Thursday, 10th of September

Darwin Hall

15:00 16:30	**Scaffold Design for Tissue Engineering** Tina Vermonden & Taufiq Ahmad (co-chair)
	Self-feeding living materials enabled by cell responsive glycogen nanoparticles as metabolic batteries Jeroen Leijten
	Hybrid Poloxamer-Gelatin Bioresins for Soft Tissue Engineering Using Digital Light Processing and Volumetric Additive Manufacturing Bioprinting Bryan Bogaert
	Comparison of Viscoelastic Behaviour in TPMS Scaffolds for Bone Tissue Engineering André Castro
	High resolution printed 3D artificial scaffolds for studying the influence of extracellular matrix biophysical cues on fibroblast migration Alexis Arcas
	Digital light processing of γ-PGA (gamma-polyglutamic acid) based sol-gel hybrid biomaterials Yuchen Li
	Polymer-based honeycomb membrane on a 3D porous bioactive glass: towards a new generation of scaffolds for bone tissue engineering Sarah Larroudé
	Thiol-guided peptide-functionalized albumin hydrogels with tunable architecture and bioactivity Nabila Mehwish
20:00 ...	**Gala Dinner (Horta, Hopland 2, 2000 Antwerp - other venue)**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Thursday, 10th of September

Galapagos

08:00 10:00	**Biomaterials and Biomaterials Advances Award Session (8 - 10 AM)** Kam Leong, Manuel Salmeron-Sanchez, Rui Zhang
	Multifunctional and Dynamic Hydrogels for Biological Applications (Biomaterials Global Impact Award) Kristi Anseth
	Airway delivery of circRNA gene therapy and mucosal vaccines using pulmonary surfactant-incorporated LNPs (Biomaterials Award for Young Investigator) Guizhi Julian Zhu
	Restoring Macrophage Homeostasis via a Biomimetic Strategy for Osteoarthritis Therapy (Biomaterials Advances Innovation Award) Xianglong Han and Wenbin Yang (co-presenter)
	Bone voyage (Biomaterials Advances Innovation Award) Debby Gawlitta

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Friday, 11th of September

Queen Elisabeth Hall

	Biomaterials for Bone and Cartilage Regeneration (II) Catherine Levisage & Öznur Demir (co-chair)
	Multi-Material and Multi-Wavelength Volumetric 3D Printing Quinten Thijssen
	A coacervate based approach to achieve controlled mineralization in bulk collagen constructs Noemy Vergara Vera
	Collagen-catechol hydrogels combined with gallium-bioglass nanoparticles for bone regeneration Margarida Fernandes
08:30 10:00	**3D bone tissue model by triculture of human primary cells on methacrylated gelatin bioink, supported by biphasic calcium phosphate** Nina Durvin
	Enhancement of Osteogenic Differentiation Using Gelatin-Coated BaTiO3 in PLLA Scaffolds Shu Nakagawa
	Osteoinductive effect of an ectopic hydroxyapatite synthetic bone graft – a µCT and histopathology-focused study Veronica Rondahl
	Metal oxide modified fluorophosphate nano glass filled polymeric scaffolds for enhanced bone repair Sundara Moorthi Ganesan
	New injectable composites featuring dual responsiveness for trabecular bone repair Miroslawa El Fray
10:00 10:45	**Coffee break**
	Hydrogels for Tissue Engineering and Regeneration Sing Y. Chew & James Warren (co-chair)
	Bioinspired materials for intervertebral disc regeneration: design principles and translational perspectives Catherine Levisage
	Tuning Alginate Matrix Viscoelasticity Reveals Mechanoregulation of Microglial Inflammation Miguel Morais
10:45 12:15	**Post-Ischemic Remodeling: Elastin-like Recombinamer Hydrogel in ST-Elevated Myocardial Infarction (STEMI)** Sweety Evangeli Malli
	High-throughput screening of biomaterials; A new methodology for screening of hydrogels fo the organ-on-chip applications Banafshe Pishva
	Low-temperature gelation of norbornene-functionalized gelatin and PEG-thiol hydrogel Heidi Vänskä
	Human Corneal Epithelial Cell Transfer On Biosynthetic Scaffolds Grown In 3D Printed Cell Seeding Devices To Treat Persistent Corneal Epithelial Defects David Robinson

Queen Elisabeth Hall

10:45 12:15	**Human Corneal Epithelial Cell Transfer On Biosynthetic Scaffolds Grown In 3D Printed Cell Seeding Devices To Treat Persistent Corneal Epithelial Defects** David Robinson
	Combined Thermal and Rheological Characterization of Polyvinyl Alcohol Hydrogels Using a Freeze-Thaw Technique Florian Rummel
	Design and Mechanistic Investigation of Colloid-assembled Self-healing (CASH) gels Huanan Wang
12:15 13:30	**Closing Ceremony**
13:30 14:30	**Take-away lunch**

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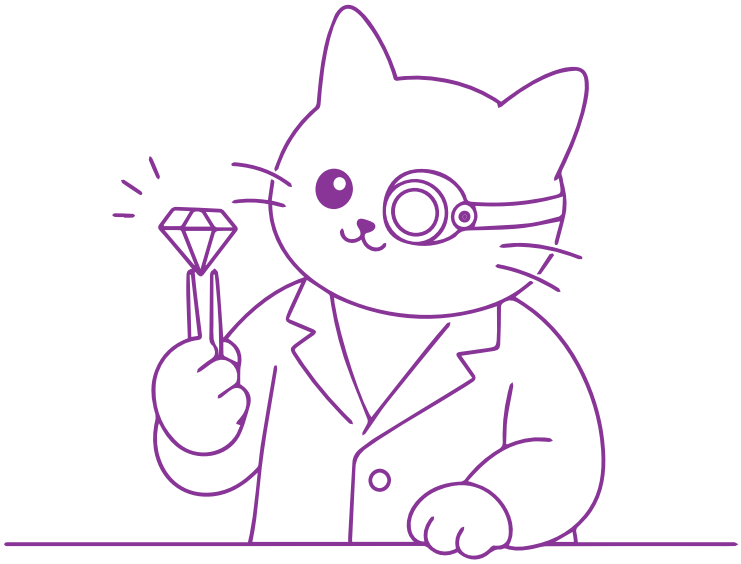
Friday, 11th of September

Okapi Room 2

	From Muscle to Tendon - Advanced Biomaterials for vitro models and therapeutic development Shane Browne & Manuel Gomez-Florit (chair) & Nicoletta Inverardi & Silvia Chiera (co-chair)
08:30 10:00	**TENET: Strengthening tendon regeneration research through cooperation** Manuel Gomez-Florit
	Development and Evaluation of Precision Biomaterials and Biomanufacturing for Treatment of Volumetric Muscle Loss Injuries George J. Christ
	Decoding Mechanosignaling in Bioengineered Tendon Models for Regenerative Strategies Rui Domingues
	Fibrin-gelatin hybrid hydrogels as a platform for biomimetic mechanically active in vitro tendon modelling Marguerite Meeremans
	Toward non-invasive muscle stimulation mediated by NIR-activated polydopamine nanoparticles Giulia Gigante
	Adipose-derived stromal cells as a model for evaluating peptide-functionalized chitosan biomaterials for muscoloskeletal tissue regeneration Michał Pikuła
	Synthesis of a highly soluble, biodegradable and conducting copolymer for biomedical engineering applications Danilo Alves
	Linking Multi-Omics, Spatial Imaging, and Contractile Function to Benchmark Engineered Skeletal Muscle Maturation Nehar Celikkin
10:00 10:45	**Coffee break**
	Engineering Living Materials for Emerging Health Needs Barbara Gerratana & Laura Martinelli (co-chair)
10:45 12:15	**Engineering bioactive hydrogel-based living materials for infection control and bone regeneration** Luigi Ambrosio
	Bacteria-based materials in cell engineering Manuel Salmeron-Sanchez
	Lysozyme amyloid nanofibril-reinforced carrageenan–CMC bioinks for high-fidelity 3D bioprinting of living wound healing patches Maria Teixeira
	Photosynthetic biomaterials based on microalgae for oxygen generation and metabolic activity analysis Daria Podstawczyk

Okapi Room 2

10:45 12:15	**Species-dependent biofunctionalization of Ti6Al4V surfaces using microalgae-derived biomolecules** Virginia Paredes
	Dynamic perfusion enhances vascular network formation in human platelet lysate–derived hydrogels Lucie Militão
12:15 13:30	**Closing Ceremony**
13:30 14:30	**Take-away lunch**



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Friday, 11th of September

Okapi Room 3

08:30 10:00	**Microfluidic platforms for tissue modelling and micro nano-particle engineering** Eleana Kontonasaki & Xanthippi Chatzistavrou (co-chair) & Andreea-Luiza Mirt
	3D micro/nanoprinting-enabled microfluidic technologies Ryan Sochol
	Sterol-grafted chitosan nanoparticles as bactericidal nano-decoys for Helicobacter pylori eradication Bruna Costa
	Real-time oxygen monitoring in 3D printed Organ-on-Chip using optical microsensors Francesco Bisconti
	Engineering a perfusable bicompartmental hydrogel for artery-perivascular tissue modelling Elisa Perelli
	Micrometer-Sized Hydrogel Beads for siRNA-Polyplex Colonic Delivery via a Microfluidic-Assisted Approach Valentina Marotti
	Nano-Micron Combined Hydrogel Microspheres for Multifaceted Antioxidant Defense in Osteoarthritis Yiting Lei
10:00 10:45	**Coffee break**
10:45 12:15	**Nanomedicine and Biomaterials Converging Platforms for Next-Generation Therapies** Alexandre Ceccaldi & Arn Mignon (co-chair)
	Nanomedicine and biomaterials in Europe: making convergence work for patients. From nano-enabled health technologies and advanced materials to clinical translation Alexandre Ceccaldi
	Mesoporous Silica Nanocarriers for miRNA-mediated Osteogenic and Myogenic Differentiation Niek Stassen
	Magnetically Driven Cyclodextrin Nanoplatforms for Site-Specific Osteosarcoma Treatment Ana Laura Coria Gutiérrez
	Nanozyme-functionalized 3D-bioprinted hydrogel for temporally programmed neurovascularized bone regeneration Qiongjiao ZENG
	Biomimetic hybrid liposomes derived from brain metastatic cells: a novel platform for targeted CNS delivery Michela Patrucco
	Engineering Ultrasound-responsive Therapeutic Antibubbles for Glioblastoma Therapy Aygül Zengin

Okapi Room 3

10:45 12:15	**Engineering Metal Nanoclusters for Targeting Amyloid-β Pathology in Alzheimer's Disease** Jayasree Ajakumar
	Erythromycin conjugated to polyanhydride matrix for controlled topical delivery Konrad Kwiecień
12:15 13:30	**Closing Ceremony**
13:30 14:30	**Take-away lunch**

Friday, 11th of September

Gorilla room 1

	Enabling Technologies for Improved Biomaterial Research: From Biomaterial Design to Regenerative Medicine Maria Kalogeropoulou & Maria Pita-Vilar (co-chair)
	Extracellular matrix (ECM) as a powerful biomaterial for regenerative medicine applications Francesca Boccafoshi
	Standardized evaluation of compound–material interactions and antimicrobial activity against BSL-3 pathogens using the ClicKit-Well platform Juliane Spohn
	A robotic wound care patient for surgical site infection research Yael Shlomo
08:30 10:00	**Application of double-shot pyrolysis GC-MS for the chemical characterization of dental thermoplastics** Qianpeng Li
	A magnetically navigated microfluidic platform for controlled in vitro assessment of microrobot performance Andrea Garcia Lizarribar
	Imaging Cell-Matrix Interactions: From Synthetic Fibrous Hydrogels to Molecular Tension Sensing Susana Rocha
	PEG-nitrosothiols as kinetic regulators of thiol-maleimide crosslinking for homogeneous and compositionally diverse hydrogels Julian Serna
	TiLuminate: Illuminating the surface of titanium implants with fluorescence microscopy Tas Roderick
10:00 10:45	**Coffee break**
	Bio-fabrication and bioactive biomaterials for regulating the host-graft interactions Advances and challenges in the field Srinivas Madduri
	Light-addressable liquid crystal elastomer metamaterial scaffolds for dynamic skeletal muscle regeneration Hritwick Banerjee
10:45 12:15	**Bioactive implant surface coatings using crude exopolysaccharides from Limosilactobacillus reuteri** Raunak Lohar
	Biofilm prevention and quorum-sensing interference via surface-bound peptoid Ziba Najmi
	Competitive protein adsorption on nanocellulose substrates: Real-time insights into Vroman-type behavior by QCM-D Jessica Borges Vilches

Gorilla room 1

10:45 12:15	**Magnetically Responsive Antimicrobial Nanosystems: an Ally Against Biofilms** Filipa Campos
	Evaluation of Microbial Degradation of Phytic acid and Its Effect on Caco-2 Intestinal Cells Zülal Muganlı
12:15 13:30	**Closing Ceremony**
13:30 14:30	**Take-away lunch**

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Prof Nicholas Dunne

The role of a phosphoserine modified calcium phosphate adhesive in augmenting osteoclast response and bone remodelling.

John Redmond, PhD.

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Friday, 11th of September

Gorilla room 3

08:30 10:00	**Mimicking ECM for 3D bioprinted tissue models from bioinstructive inks to AI driven processes** Enzo Menna & Stefania Benazzato (co-chair)
	Laura Russo
	Human Astrocyte to Neuron Reprogramming in Hydrogels: Probing the Influence of Fibrin and Stiffness Thomas Distler
	Engineering a Pectin Hydrogel Bioink for Endothelial Cell Growth in Soft Neural-Like Matrices Filipa Leal
	Enabling three-dimensional electrical stimulation of neural stem cells in decellularized extracellular matrix scaffolds using graphene-based electrodes Paula Marques
	Investigating the immune landscape of the gut-joint axis using a novel 3D bio-printed in vitro model of human synovium and its extracellular matrix Amelia Heslington
	Novel xeno-free hPLMA/dECM-MA biomaterial for 3D DLP bioprinting Sara Silvério
	Anti-thrombotic and decalcifying dECM embedded bilayer grafts for vascular tissue engineering Rosanna Hood
10:00 10:45	**Coffee break**
10:45 12:15	**Biomaterials for Localized and Targeted Therapies** Laura Russo & Pedro Luis Echevarria Torres (co-chair)
	Engineering Spatial Microenvironments for Brain–Interface Applications Catalina Vallejo-Giraldo
	Investigating the role of a plant-derived polysaccharide in chemoresistance in acute myeloid leukaemia Rui Ling Lee
	New hydrogel vehicles for reactive oxygen and nitrogen target tumorigenesis and liver damage in vivo Cristina Canal
	Nanotherapy Approaches to Combat Helicobacter pylori: Tiny Particles, Big Impact Cristina Martins
	Metals against Leishmaniasis: a study on biodegradable metal nanoparticles against Leishmania infection Bruno Ribeiro

Gorilla room 3

	Fabrication and Characterization of 3D-Printed Alginate Micro-Implants for Sustained aricimab Delivery Arian Farokh
	Perivascular biodegradable mesh for delivery of dexamethasone to extend graft latency Swarnapriya Kasi
	Screening Sono-Activated Nanoparticles Anti-tumor Performance in Glioblastoma 3D Models Harischandra Kumar
12:15 13:30	**Closing Ceremony**
13:30 14:30	**Take-away lunch**

Friday, 11th of September

Gorilla room 4

08:30 10:00	**Macromolecular assemblies composed of peptides or proteins** Luigi Ambrosio & Silvia Santoni (co-chair)
	Protecting tissue surfaces using soft matter Liam Grover
	Biofunctionalization of Biomaterial Surfaces Using Diazirine-Based Linkers From Proof of Concept to Future Applications Nazar Rad
	Soft Scaffolds, Smart Delivery: Peptide Hydrogels for Sustained Release of Biologicals Hue Vu
	Designing peptide hydrogels as a localised delivery vehicle for adjuvant glioblastoma synergistic chemotherapy Nazaruddin Mohammad Nasser
	Electrostatically tunable peptide hydrogels for embedded bioprinting and nanoparticl delivery Somayeh Taheri
	Phlorotannin-inspired coatings for enhanced cytocompatibility and anti-inflammatory protection Tiziana Brosio
10:00 10:45	**Coffee break**
10:45 12:15	**Metabiomaterials and Functional Biomaterials: Bridging Structure, Mechanics and Biology** Dr Elise Pegg & Dr Caroline S Taylor (co-chair)
	Leveraging additive manufacturing for orthopaedic metabiomaterials Sophie Cox
	Auxetic Metamaterials for Skeletal Muscle Regeneration Maria Kalogeropoulou
	Stochastic Voronoi-Based Data-driven Generation of Trabecular Bone Surrogates with Morphologically Representative Microarchitecture Marco Piacentini
	A molecular-weight-tuned fibrin–alginate IPN for modelling stiffness-linked cardiac ageing in 3D João Ribeiro
	Bioprinting of Phenotypically Defined Fibrocartilage Microtissues into Melt Electrowritten Scaffolds to Engineer Regionally Defined Meniscal Grafts Gabriela Kronemberger

Gorilla room 4

10:45 12:15	**Programming motion and shape-morphing in bioprinted heart tissues via dynamic magnetic fields** Juhi Chakraborty
	Engineering Collagen Microarchitecture to Modulate Stromal Differentiation and Function in 3D Lymphoid Tissue Models Mei ElGindi
12:15 13:30	**Closing Ceremony**
13:30 14:30	**Take-away lunch**

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D1 - P002	Elisa Roldan	SpinCastML an Open Distribution-Aware Inverse Design Application for Electrospun Biomaterials
D1 - P004	Zeynep Akyol	Snail mucus-based hydrogel system: a sustainable and bioactive approach for neural regeneration
D1 - P005	Michel Boissière	A multidisciplinary workflow combining digital planning, surgery, and biomaterials for next-generation nasal reconstruction
D1 - P006	Paola Carou-Senra	Rapid Dataset Generation using Large Language Models in Additive Manufacturing
D1 - P007	Max von Witzleben	Label-free osteoclast detection via biologically informed diffusion models with intrinsic uncertainty quantification
D1 - P010	Oriana De Becker	An integrated in vitro – in silico framework for 3D-printed pcl bioresorbable implants
D1 - P011	Qi Fu	3D Printed Porous Organic-Inorganic Scaffolds for Bone Defect Repair
D1 - P013	Bijay Kumar Karali	Robocasting of zinc oxide reinforced tricalcium phosphate scaffolds: rheological, structural, and mechanical insights.
D1 - P014	Georgia sAello Garantoudi	Metabolite-based anti-inflammatory polymers to modulate the foreign body response
D1 - P016	Subham Mishra	Designing a click-chemistry based injectable HA-CS hydrogel as a solution for knee osteoarthritis.
D1 - P017	Angela Andrzejewska-Sroka	Effect of hydrolytic degradation on the compressive mechanical properties of the TPMS gyroid bone scaffolds
D1 - P020	Fábio Garrudo	Development of PEDOT:PSS-based composites for fabricating tissue engineering scaffolds
D1 - P021	Gaia Vicinelli	Combining sustainability and regenerative therapies: upcycling sea urchin waste into biomimetic collagen-hydroxyapatite scaffolds
D1 - P022	Ruiyan Gao	Charge-Dependent Mechanical Reinforcement in Silk–Elastin-Like Polypeptides Hydrogels Postprocessing
D1 - P023	Aaron Kwiatkowski	Proximity-Driven Dynamic Covalent Biomaterials for adaptive Extracellular Matrix Mimics
D1 - P025	Shrivatsa Hegde	The first step towards a validated reference material for arterial mechanical testing
D1 - P027	Linda Gätjen	Bioinspired functionalization of PEEK and the resulting cell response especially on osteoblast adhesion and osteogenic gene expression
D1 - P029	Sarah Vorsselmans	The Forces in the Balance: FRET-based molecular tension sensors reveal the forces within CCM disease

D1 - P030	Diego Lopez Barreiro	"Effect of antimicrobial peptide position on the mechanical and antibacterial properties of silk-elastin-like protein (SELP)-based biomaterials"
D1 - P031	David Chau	Cracking the Potential: Characterisation of Avian Eggshell Membranes for Clinical and Biomedical Innovation
D1 - P032	Estephanny Jocelyn Alvarado-Munoz	On mechano-compatibility in scaffolds and testing-chamber for mechano-transduction at the interface bone/cartilage
D1 - P033	Bhuvaneshwari Anbazhagan	Development of oxidized alginate-bioactive solubilised ECM bioink to enhance osteogenic differentiation for 3D bioprinting
D1 - P034	Taufiq Ahmad	Melt electrowritten biphasic scaffolds for osteotendinous interface engineering
D1 - P036	Simona Di Cosmo	Microdroplets-assisted fibroblast adhesion for advanced stent functionalization in vascular surgery
D1 - P037	Parisa Torabi-Rahvar	A Nucleus Pulposus–Inspired Microfluidic 3D Culture-on-a-Chip for Modeling Mechanical Loading in Intervertebral Disc Tissue
D1 - P038	Nicolas Deroose	Harnessing Natural–Synthetic Polymer Synergy for Multifunctional Tissue Engineering Hydrogels
D1 - P039	Elisabetta Galluppo	Calcifying microalgae as functional nano-platforms for bone fillers
D1 - P041	Christine Visser	Balancing mechanics and cell adhesion in elastin-like polypeptide–collagen hydrogels
D1 - P045	Filipa De Vasconcelos	Piezoelectric PLLA β-TCP 3D scaffolds with designed porous architectures for bone tissue engineering
D1 - P046	Raúl Agut López	Flexible Ceramic Hydroxyapatite Scaffolds with Tuneable Mechanical Properties and Degradation Kinetics
D1 - P047	Andreea Ioana Dinu	Polydopamine Meets POSS: Engineering Multimaterials for Osteoporotic Bone Regeneration
D1 - P048	Dario Davì	Composite PLLA/PLLA-HAp Gradient Porous Scaffolds Fabricated by two-step TIPS for Bone Tissue Regeneration
D1 - P049	Aneta Szymańska	Covalent Surface Engineering of Polyester-based Scaffolds with Functionalized Peptides for Enhanced Stability in Cartilage Regeneration
D1 - P050	Cátia Monteiro	Bioengineering a humanized bone-on-a-chip model leveraging human ECM-derived macroporous cryogels
D1 - P053	Shreya Pande	Mechanically Tuned dECM Hydrogels via Dipeptide Reinforcement for Cartilage Repair
D1 - P054	Stefan Oschatz	Fetuin A-functionalized 3D-printed Gyroidal Scaffolds for Enhanced Bone-Integration

D1 - P055	Caroline Taylor	Biomimetic, bio-functionalised polymer implants to promote in situ repair of traumatic and early osteoarthritic cartilage defects
D1 - P058	Dania Droubi	Optimization and in vitro exploration of chitosan 3D-printed scaffolds for neural repair
D1 - P059	Sonali Naik	"Dual-Crosslinked Pectin-Gellan gum Based Hydrogels via Thiol–Ene Michael Addition and Photopolymerization for Tunable Cell–Material Interactions"
D1 - P060	Hilal Yılmaz-Dagdeviren	Decellularized CNS-Derived Hydrogels as Neurotropic Biomaterials for Neural Regeneration
D1 - P062	Abby Thompson	Silk-elastin like polypeptides for electrospun small diameter vascular grafts
D1 - P063	Jessica Harrison	Bioinspired design of hydrogel adhesives for lung tissue engineering
D1 - P065	João Mano	Making human ECM printable: a photocrosslinkable ink for extrusion bioprinting
D1 - P066	Karoliina Hopia	Catecholamine functionalisations tailor 3D printability of hyaluronan bioinks
D1 - P067	Sasini Yashoda Weerasinghe	Engineering a biomimetic 3D-printed hydrogel scaffold for pancreatic islet transplantation
D1 - P069	Elisa Restivo	Anti-adhesive surface performance of biomorphic calcium-phosphate scaffolds against planktonic bacteria
D1 - P070	Pedro Silva	PVDF Films Incorporating Zinc Oxide Tetrapods For Enhanced Piezoelectric And Antibacterial Performance
D1 - P071	Ditte Rask Tornby	In vitro and in vivo evaluation of a novel biomimetic arteriovenous graft material
D1 - P072	Rui Reis	Surface coating with end-on PEGylated heparin enhances specific antithrombin binding
D1 - P073	Lea Gazvoda	3D Solvent-Cast Printing of Oriented PLLA Scaffolds for Piezoelectric and Hybrid Hydrogel-Based Tissue Engineering
D1 - P074	Sara Otín	A Lymph Node-Mimicking 3D Hydrogel Model for Follicular Lymphoma
D1 - P076	Benjamin Kruppke	Biomimetic Hydrated Coatings for Ultra-Low Friction Ceramic Applications
D1 - P077	Susantika Paik	"Multiscale characterisation of SLM-printed Co–Cr–Mo porous lattice structures for bone tissue engineering in total knee arthroplasty implants"
D1 - P079	Sushmita Chettri	"Single-step femtosecond laser-induced hierarchical structuring of Ti6Al4V with LIPSS for enhanced osseointegration and reduced bacterial adhesion"

D1 - P080	David Bucak Gasser	Aqueous chemoselective conjugation of N-terminal L-cysteines to polysaccharides
D1 - P081	Ebony Shire	Influence of sequence arrangement and processing conditions on the self-assembly of biomineralising silk-elastin-like polypeptides
D1 - P083	Matthew Baker	"Chain-selective presentation of RGD in static and dynamic double-network hydrogels modulates hMSC mechanotransduction and secretome"
D1 - P084	João Silva	"Engineering Osteosarcoma In Vitro using 3D Bioprinted Tumor Spheroids and Cell-Derived dECM-based Bioinks for Improved Therapeutic Discovery and Drug Screening"
D1 - P085	Hung Chun-Yu	High-Z/Catalytic Function-Coupled All-in-One Platform for Enhanced Tumor Therapy
D1 - P086	Moonil Kim	BiFC Reporter-Based Detection of Influenza A Virus
D1 - P088	Sumanta Ghosh	Hierarchical supramolecular nanoneedles loaded with bio-ionic hydrogel mediated dense biofilm eradication in the deep tissue
D1 - P090	Ana María Muñoz Mateo	3D Printing of Responsive Biomaterials for Bacteria Sensing
D1 - P091	Flaminia Fruzzetti	Exploring substrate stiffness and YAP/TAZ pathways in non-viral gene delivery applications
D1 - P094	Divishth Gupta	"Development of antimicrobial 3D-printed bio-ink scaffolds incorporating nanoparticles and antibiotics for infection control in healthcare setting"
D1 - P095	Erika Roventini	Development of a smart ultrasound-activated patch for localized oxygen delivery in chronic wounds
D1 - P096	J. Alejandro Romero-Antolín	Next-Generation antibacterial poly(ionic liquid) nanoparticles
D1 - P097	Alfred Corrigan	Magnetically responsive, bio-adhesive peptide based composite hydrogels for soft robotics
D1 - P098	David Schell	Innovative 3D Bioprinting of Breast Cancer Bio-Units to Model Macrophage–Tumor Interactions and NAC Response
D1 - P100	How Tseng	Preparation of Autologous Skeletal Myoblast Sheets via Novel Cell Sheet Engineering to Treat Ischemic Cardiomyopathy in Animal Models
D1 - P101	Francesca Della Sala	Hyaluronic acid–extracellular vesicle bioactive hybrid systems for lung acute injury application
D1 - P103	Karolyne dos Santos Jorge Sousa	AR Biomass as a Promising Component in Osteoactive Implants
D1 - P104	Yiting Lei	Injectable Functionalized Hydrogel Microspheres for Osteoarthritic Cartilage Regeneration

D1 - P105	Mesude Bicer	"Development of a bacterial exopolysaccharide-enriched alginate hydrogel for mesenchymal stem cell compatibility and antimicrobial properties"
D1 - P106	Marcelo Assis	Croaker Hydroxyapatite Scaffolds as Promising Regenerative Candidates for Bone Implants
D1 - P107	Sahranur Tabakoglu	Curcumin-Loaded GelMA/PCL-MEW Hybrid Scaffolds: Assessing Long-Term Release, Antioxidant Defense, and Cytocompatibility
D1 - P108	Renāte Teterovska	3D printed oak extract loaded alginate-gelatine scaffolds functionalized with mesoporous bioglass
D1 - P109	Marcelo Assis	Smart 3D Printed Marine Collagen Dressings Incorporating Zinc-Based Nanoparticles for Skin Regeneration
D1 - P111	Ward Ver Heyen	Electrospun PolyActive Scaffolds for Chronic Wound Healing Applications
D1 - P112	Yikun Zhang	Organohydrogel bioinks based on engineered albumin nanosheet-stabilised microdroplets
D1 - P113	Anjali Upadhyay	Fabrication of 3D-Printed Adhesive Microneedle Patch Loaded with Codoped Hydroxyapatite in Deep-Tissue Infective Wound Healing
D1 - P114	Ankit Kamble	Porcine Duodenum-Derived Extracellular Matrix Gel for Enhanced Diabetic Wound Healing
D1 - P115	Ling-Chun Chen	Green Freeze–Thaw Fabrication of Nano-Dispersible Sacchachitin Diepoxy-Crosslinked Hydrogels for Diabetic Wound Healing
D1 - P116	Sijin Park	"ELIXIR-030, a dual-targeting small molecule, attenuates inflammatory responses in IBD by modulating HMGB1 and type I interferon signaling"
D1 - P117	Lora Martin	Evaluation of Tolerance and Efficacy of a Cross-Linked Umbilical Cord Intracorneal Ring model in a Bioreactor
D1 - P118	Estela Kerstner Baldin	Integrated Electrochemical Platform with 3D-Printed Electrodes and MIPs for Oncological Biomarker Detection
D1 - P120	Laura Coviello	Bilayer electrospun membrane as a strategy to promote angiogenesis in advanced 3D skin model
D1 - P121	Divya Mallya	An antioxidant nanoparticle-functionalized hydrogel for hormone deficient osteoporotic bone regeneration
D1 - P122	Patricia Valdes Portas	Improving neurite outgrowth in vitro by superparamagnetic nanoparticles loaded with nerve growth factor
D1 - P123	Mahsa Borzouyan Dastjerdi	Engineering a Biofunctionalized 3D-Printed Mesh for Enhanced Anastomotic Healing
D1 - P124	Markus Lorke	Optimizing in-situ oxidized hyaluronic acid based hydrogels for 3d printing for soft tissue applications

D1 - P125	Axelle Ooms	PCL-based Biomaterials with Tunable Properties for Advanced Tympanic Membrane Repair in Chronic Otitis Media
D1 - P127	Ryszard Wielowski	"Carbon-carbon composites as materials that can stimulate neural tissue: comparison of pyrolytic carbon and functionalized carbon nanotubes"
D1 - P128	Andreas Fischbach	Catheter-based aspiration thrombectomy via mechanical thrombus shattering in a pulsatile human circulation model
D1 - P129	Ali Kalkan	Engineered 3D Human DMD Muscle Constructs Enable Optogenetic Assessment of Disease Deficits
D1 - P130	Ekin Erdoğan	A Ring-Core Hydrogel Platform for Netrin-1-Induced Guidance of PC12 Cells
D1 - P132	Kristýna Valášková	Cell-made scaffolds with mechanically induced alignment for tissue engineering
D1 - P135	Runqi Zhu	Thiol-rich hyaluronic acid hydrogel drives spheroid formation and pro-regenerative secretory activity in human adipose-derived stem cells
D1 - P136	Soonmo Choi	"Glucose-Induced Adhesion Reprogramming Enables Spontaneous Cell Sheet Detachment without Engineered Surfaces or External Stimuli"
D1 - P137	Amber Dederen	Enhancing bone regeneration in femoral critical-size defects using regulatory T cells
D1 - P138	Abhijeet Kumar Mathur	A High-Resolution Approach to Visualize Subcellular Interface Biology in Opaque Biomaterials with Defined Topographies
D1 - P139	Sanne van de Looij	Thermo-adaptive hydrogels for dynamic mechanical stimulation of encapsulated chondrocytes in cartilage engineering
D1 - P142	Arezoo Dadashzadeh	Preliminary in vivo assessment of PEGylated fibrin to fabricate engineered ovarian tissue
D1 - P143	Liliana Duarte	ATMP Classification challenges illustrated through a Spinal Cord Injury biomaterial–cell combination case
D1 - P144	Liliana Duarte	A Structured Risk-Management Approach in Preclinical ATMP Development: Insights from a Spinal Cord Injury Biomaterial Case Study
D1 - P145	Charlotte Brice	Development of an iPSC-derived foetal liver-like niche in a chemically defined hydrogel for the assessment of HSC homing and expansion
D1 - P148	Ana Margarida Carvalho	Engineering a MASLD-liver fibrosis model recapitulating the liver microenvironment with collagen type I and alginate hydrogels
D1 - P149	Natalia Gonzalez-Martinez	"High-throughput screening of surface chemistries and topographies for macrophage immune modulation using the ChemoTopoChip platform"
D1 - P150	Zengyong Chu	Bioinspired Wrinkle Engineering of 2D Materials and its Applications

D1 - P151	Saara Sirkiä	Preparation and characterization of GelMA/PEGDA hydrogel containing BG S53P4 for periodontal bone defect repair
D1 - P154	Hyeong-Cheol Yang	"Polycaprolactone (PCL) fibers grafted with phosphatidylserine and Arg-Gly-Asp (RGD) for immunomodulation and enhanced osteogenesis"
D1 - P155	Eduardo Diogo Gurgel-Filho	3D-printed multi-doped calcium phosphate cement scaffolds: in vivo biocompatibility
D1 - P156	Eva Filová	3D scaffolds from titanium alloys for bone regeneration
D1 - P158	Oznur Demir	Low-temperature synthesized α-TCP as a bioactive biochemical cue for next-generation bone regenerative biomaterials
D1 - P159	Sadia Zakir Jangda	"Electron microscopy investigation of 3D-printed surface-treated PCL fiber reinforced hydroxyapatite calcium phosphate cement for bone regeneration"
D1 - P160	Giovanna Grasser	Bioactive SrMoO4-Chitosan-Hydroxyapatite Scaffolds for Bone Tissue Engineering
D1 - P161	Agata Tymińska	"Chitosan as a biomaterial for the delivery of adipose-derived mesenchymal stromal cells and chondroinductive peptides in cartilage regeneration"
D1 - P162	Ana Claudia Muniz Renno	In vivo effects of biosilica and spongin-like collagen scaffolds on the healing process in osteoporotic rats
D1 - P164	Edvinas Krugly	Integration of polymeric multilayered scaffolds and hydrogel for osteochondral in vitro modeling
D1 - P165	Alessandra Soriente	3d-printed hybrid pcl composites for osteoporotic bone regeneration
D1 - P167	Yibo Fan	Anti-aging hydrogel microspheres regulate mitochondrial function for osteoarthritis therapy
D1 - P168	Kristine Salma-Ancane	Injectable Hydrogel for Antimicrobial and Regenerative Therapy of Bone Fracture-Related Infections
D1 - P169	Zuzanna Pawlak-Likus	Calcium/magnesium carbonate microbeads enriched with heparin or tinzaparin for potential use in bone healing applications
D1 - P171	Antonio Menini	Development and evaluation of a decellularized human bone scaffold for skeletal repair and reconstruction
D1 - P172	Andrada Serafim	High Shape Fidelity 3D printed scaffolds from Sustainable Marine-Derived materials for Bone Tissue Engineering
D1 - P173	Yongseok Choi	PTHrP-functionalized hyaluronic acid hydrogels for growth plate biomimicry
D1 - P174	Kati Rinnekari	Fabrication of compartmentalized bone tissue construct by using 3D dual bioprinting

D1 - P176	Adair Doulah	"Exploring the Effects of Human Bone-Derived ECM Hydrogels on the Crosstalk between Endothelial Cells and Bone Stromal Cells in Vascular Osteogenesis"
D1 - P177	Jung Bok Lee	Shear Stress-Driven Vascularization and Osteogenesis in a Co-cultured 3D Bone Regeneration Model
D1 - P178	Laura Hoebus	"Non-thermal plasma-assisted immobilization of nanohydroxyapatite on electrospun polycaprolactone nanofibers for bone tissue engineering"
D1 - P179	Jana Markhoff	Celecoxib-loaded 3D printed drug delivery systems for orthodontic implants
D1 - P180	Martin Konhefr	Modular Synthesis of Large Poly(amide-carbosilane) Dendrimers Approaching Virion Dimensions
D1 - P182	Katarzyna Kozubal	Effect of the synthesis method on the structure and bioactivity of borate glasses
D1 - P183	Patrycja Gaćkowska-Gondek	High-calcium bioactive borate glasses modified with copper for tissue engineering applications
D1 - P184	Sahranur Tabakoglu	Effect of the parameters of GelMA synthesis on the rheology and printability
D1 - P185	Rodrigo Torres García	"Development and Characterization of Bioinks For In Situ Osteochondral Regeneration Through Microextrusion And Filamented Light Bioprinting"
D1 - P186	Margaryta Ivanets	"Characterization of Surface Properties, Cytocompatibility, and Immunomodulatory Effects of 3D-Printed Hydroxyapatite/Polycaprolactone Composites for Intraoral Bone Regeneration"
D1 - P187	Carla Niendorf	Development and characterization of fiber-reinforced hydrogel scaffolds for osteochondral repair_ESB_2026
D1 - P188	Ashish Sharma	Dual crosslinked Interpenetrating polymer network (IPN) of GelMA and sodium alginate for fibrocartilage tissue engineering
D1 - P189	Paul Galvez	3D-printed multi-layer composite membrane combining placental tissue and PLGA-HA for bone regeneration applications
D1 - P191	Indra Mooij	Differential effects of local surface curvature on human macrophages and mesenchymal stromal cells
D1 - P192	Lucie Bačáková	Smart biomaterial coatings with dual antimicrobial and regenerative properties
D1 - P193	Lukasz Ceglarski	Novel Sustainable Composites for Bone Tissue Engineering Developed via Cold Sintering
D1 - P194	Julia Bünecker Cassel	Niobium-substituted α-tricalcium phosphate: tuning phase stability, solubility and biological response for bone regeneration
D1 - P195	Marc Bohner	Needle-Like Hydroxyapatite Particles as Immunological Modulator for Enhanced Osteoinduction

D1 - P196	Andreea Luiza Mirt	Impact of Ionic Release from Mg-Doped Mesoporous Carriers on Fibroblast Behaviour in Hypoxic Environments
D1 - P197	Anna Rubina	Selenium loaded mesoporous bioactive glass for bone infection treatment
D1 - P198	Lucia Baixauli Marin	"Reindeer bone protein extract enhances bone healing properties of Beta-Tricalcium Phosphate granule matrix in sheep critical size bone defect model"
D1 - P199	Karolyne Sousa	3D-Printed Biosilica-Spongin Scaffolds Promote Bone Regeneration: An In Vivo Evaluation
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D1 - P201	Anna Krokos	Bioinspired Polydopamine Functionalization of PLLA and PLGA Scaffolds: Dual Strategies for Improved Surface Hydrophilicity
D1 - P202	Sreena R	"Dual-Crosslinked Injectable Hydrogel Reinforced with Phyto-Loaded Mesoporous Hydroxyapatite for Minimally invasive Bone defect repair"
D1 - P203	MinJoo Kim	"3D-printed Polycaprolactone-Bioactive Glass Composite Scaffolds for Bone Tissue Engineering: The Effect of Filler Content on Different Surface Modifications"
D1 - P204	Federica Giuliano	Nanocomposite Injectable Hydrogels as Support Systems for Mandibular Fracture Healing
D1 - P205	Kanade Kaneko	Effect of Formulation Parameters in Mechanical Properties of Coordination Hydrogel
D1 - P208	Ashish Sharma	"Novel 3D open-cell lattices for bone tissue engineering: mathematical models, flow permeability, additive manufacturing, and mechanical characterisation"
D1 - P209	Celeste Di Meo	"Homogeneous-phase crosslinking of biotechnological and animal-derived chondroitin: a comparative physicochemical and biological study"
D1 - P210	Marie Pau Ginebra	Ultra-long ion-doped hydroxyapatite nanofibers: from brittle ceramics to flexible bioactive scaffolds
D1 - P213	Shwu Jen Chang	Plasma-Modified Exosome-Functionalized Surgical Sutures for Meniscal Tear Repair
D1 - P214	Robin Schlinkmann	Development of an Electrospun PCL-Based Bilayer Membrane for Guided Bone Regeneration in Periodontal Applications
D1 - P217	Jie Li	Biological Effects of Plant Viruses on Cancer Cell–Macrophage Crosstalk in the Tumor Microenvironment
D1 - P218	Rui Cheng	From Cell Source to Bone Formation: Comparative Osteogenic Performance of Exosomes in a HOB–HUVEC Co-Culture System
D1 - P219	Weng Chi long	Pyroptosis-triggerable multifunctional nanotherapeutics for PTT/PDT therapy with synergistic immune activation against TNBC

D1 - P220	Hsin-Cheng Chiu	"H2S-responsive CuSe nanoparticles convert into CuSSe in situ with band gap modulation for oxygen self-supply and enhanced colon cancer phototherapy"
D1 - P221	Marlus Chorilli	ENGINEERED LIPOSOMES FOR PULMONARY DRUG DELIVERY
D1 - P222	Nimeet Desai	"Bioengineering a Mucoadhesive Hydrogel-Nanofibre Composite for Ocular Chemotherapy: Preliminary Validation in a Novel CAM Model of Conjunctival Melanoma"
D1 - P223	A. Aleyna Akdemir	Angiogenic Potential of Estrogen Loaded Chitosan/PVA Microneedles
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D1 - P225	Kaoru Aoki	Evaluation of cytotoxicity of the surfactant Pluronic F-127
D1 - P226	Assunta Borzacchiello	"Bioadhesive and Thermosensitive Poloxamer-Based Hydrogel with Tannic Acid and Hyaluronic Acid for Sustained Bladder Cancer Treatment"
D1 - P227	Bruno Winter	Changes to improving the user experience in DIW 3D printer
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D1 - P230	Pu-Sheng Wei	Development of Peptide-Functionalized Lipid Nanoparticles for Enhanced Mucus Penetration and Endosomal Escape
D1 - P231	Wen-Wei Wu	A multifunctional ZnO: Cu/FTO/Ag nano-heterostructure platform for high-performance surfaceenhanced Raman scattering
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D1 - P234	Klaudia Cholewa	Biocompatibility challenges of biomaterials in Mechanical Circulatory Support: limitations of in vitro models in predicting in vivo performance
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D2 - P008	Sajida Maryam	Exploring the Potential of Biopolymer Matrices for Dual Chemo-Thermal Therapy in Colorectal Cancer
D2 - P010	Patrycja Domalik-Pyzik	"Lipid nanoparticles as an inhalable drug delivery platform for budesonide and ensifentrine in COPD: formulation design and physicochemical characterisation"
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D2 - P022	Francesca Foto	Polymeric Nanogels as Targeted Drug Delivery Systems for Prostate Cancer Treatment
D2 - P023	Yusuf Ghazali	"Ex vivo permeation of thymoquinone from transfersome formulations: deformable vesicular carriers and their potential for localised transdermal delivery to breast tissue"
D2 - P024	Pauline Stadler	"Accelerated mucopermeation and -penetration of the polypeptide antibiotic Colistin via ionic complexation with polyphosphazene carriers"

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D2 - P030	Paul Garcia	Engineering a Human Umbilical Cord-Based Biomaterial for Fistula Treatment and Controlled Delivery of Therapeutic Exosomes
D2 - P031	Gabriel Alfranca	NANBIOSIS: A distributed research infrastructure bridging Academia and Industry up to preclinical development
D2 - P032	Darya Farrokhnemoun	Additive Manufacturing of Porous Ceria-Stabilized Zirconia Ceramics for Drug Delivery
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D2 - P035	Vaishali Makwana	Novel protein-nanoencapsulation platforms, overcoming the protein-delivery challenges for protein therapeutic applications
D2 - P036	Tuba Okur Aksu	"Development and characterization of tetracycline-loaded dual crosslinked carboxymethyl cellulose-based hydrogels for wound healing applications"
D2 - P037	Matthew Wylie	Synergistic antimicrobial delivery from hydrogel-grafted endotracheal tubes to prevent ventilator-associated pneumonia
D2 - P038	Bin He	Electrospun biodegradable glaucoma stents for controlled local delivery of tacrolimus and Y-27632
D2 - P039	Jonas Schimmel	A versatile mesoporous silica nanoparticle platform for pro-regenerative protein delivery
D2 - P040	Ashley Rillo-Albert	"Leveraging the Mucoadhesive Characteristics of Microparticles to Improve Drug Delivery Systems for Pseudomonas Keratitis Management"
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D2 - P049	Pauline Skigin	Design and synthesis of crosslinking ionizable lipids for the formulation of DNA therapeutics in multifunctional lipid nanoparticles
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D2 - P055	Debayani Chakraborty	Development of a NIR-activated, Au-AgTiO2-SnO2 implantable chip for deep-tissue UTI treatment
D2 - P057	Hsing-Wen Sung	Oral β-glucan supplementation enhances PD-1 immunotherapy and alleviates cancer cachexia through a microbiota–gut–brain axis
D2 - P058	Aihui Guan	Solid Lipid Nanoparticles for miRNA Delivery for Anti-inflammatory Therapy in ARDS in vitro models
D2 - P059	Martina Kralova	Antiseptic thread based on hyaluronic acid for periodontitis treatment
D2 - P060	Ayça Bal Öztürk	"Handheld Electrospinning-Assisted Point-of-Care Fabrication of Aloe Vera–Silk Fibroin Fibrous Wound Dressings for Emergency Burn Care: Evaluation on CAM-Based Preclinical Burn Model"
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D2 - P064	Tuğçe Şener Raman	Real-time single-cell insights into antibacterial interactions of silver-loaded PEGDA/gelatin hydrogels
D2 - P065	Jihwan Park	"Biotinylated nanoparticle-conjugated streptavidin-associated Salmonella enhances photodynamic therapy and systemic antitumor immunity"
D2 - P066	Kristiyan Stiliyanov Atanasov	Multi-modal hyaluronic acid-derived hydrogels for therapeutic EVs delivery in tendinopathy
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D2 - P088	Elif Conger-Onder	In vivo Performance of Extracellular Vesicle–laden Injectable Hydrogel for Testicular Torsion Repair
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D3 - P032	Heike Helmholz	Investigation oh the effects of Mg degradation products on endothelial cells to evaluate the potential impact on blood vessel formation
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