MATERIALS FABRICATION
EMERGING TECHNOLOGIES

II International Conference on Biomaterials and Biofabrication
May 28-30th 2025, Hartford, US

Speakers' Bio

Conference Itinerary

Day 1: May 28th 2025	
8:00 am - 8:15 am	Coffee break
8:15 am - 8:20 am	Welcome and opening remarks
Session 1 – Chair: Sasan Jalili	
8:20 am – 10:00 am	**Thanh Nguyen -** *Biodegradable Piezoelectric Tissue Engineering Scaffold*
	Yupeng Chen - *Osteoarthritis treatment using Janus base nanotherapeutics on Earth and in space*
	Amir Sheikhi - *Granular Hydrogel Scaffolds with Hierarchical Porosity Improve Cell Recruitment and Tissue Integration*
	Corentin Peyret - *Study of the protective effect of a targeted rapeseed nanoliposome on their in vitro digestibility*
	Fatemeh Alipanahrostami - *In Situ-Formed Immunomodulatory Colloidal Scaffolds for the Treatment of Burns*
10:00-10:15	Morning break
Session 2 – Chair: Amir Sheikhi	
10:15 am – 12:00 pm	**Kristo Nuutila** - *Advancing Combat Burn Care with Functional Biomaterials*
	Cyril Kahn - *From Microfluidic to Biological Model Barrier for Particle Vector Cross-membrane: Application to Intestinal Membrane and Blood Brain Barrier*
	Halima Alem - *Development of Bio-Printed Cancer Models for a Biomimetic Investigation of Nanoparticulate-Based Therapeutics*
	Brenna McAllister - *Development of a Functional PSMA(+) Three-Dimensional Human Tumor-Bone Microvascular Model for Investigating Prostate Cancer Bone Metastasis and Therapeutic Targeting*
	Su Ryon Shin - *Engineering Nano-biomaterials for Tissue Fabrication and Regenerative Medicine*
12:00 pm - 1:10 pm	Lunch break on your own
Keynote presentation – Chair: Yupeng Chen	
1:10 pm -2:10 pm	**Mark Saltzman** - *Fabrication of polymer nanoparticles for delivery of nucleic acids*
Session 3 – Chair: Cyril Kahn	
2:10 pm - 3:00 pm	**Yusuf Khan -** *Ultrasound-Derived Acoustic Radiation Force to Enhance Bone Repair and Regeneration*
	Hang Lin - *Generation of a miniature knee joint system for modeling osteoarthritis and associated pain*
3:00 pm - 3:15 pm	Afternoon break
Session 4 – Chair: Halima Alem-Marchand	
3:15 pm - 5:00 pm	**Ali Tamayol -** *Biomaterials and (Bio)fabrication for Engineering Tools for Treatment of Soft Tissue Injuries*
	Sasan Jalili - *Profiling Tissue-Resident Immunity Through Microneedle-Based Sampling*
	Delaram Ghanbariamin - *Cleanroom-free fabrication of tunable Microneedle arrays for encapsulated Messenger-RNA Delivery*
	Steven Toro - *In Situ-Fabricated Microneedles Depot for Soft Tissue Drug Delivery*
	Rittika Somadder - Plant Seed-Derived Mucilage as a Scaffold-Free Approach for Cultivated Meat Biomanufacturing
	Annie Nguyen - *DNA-Inspired Electrically Conductive Nanotubes for Intracortical Microelectrode Stimulation and Recording*
	Aditya Ruikar - *Development of a Multifunctional Gelatin Methacryloyl-Based Proteoglycan-4 Eluting Scaffold for in situ Repair of Corneal Defects*

Day 2: May 29th 2025	
8:00 am - 8:15 am	Coffee break
Session 5 – Chair: Tannin Schmidt	
8:15 am - 10:05 am	**Kshitiz** - *Evolution in connective tissue: how cows solved the problem of cancer malignancy*
	Tohid Didar - *Nano-biomaterials for diagnostics, therapeutics, and preventing the spread of infectious diseases*
	Hossein Ravanbakhsh - *Unconventional Strategies for the Biofabrication of Soft Tissue Constructs*
	Eun Ji Chung - *Harnessing extracellular vesicles as nanotherapeutics*
	Arian Jaberi - *Engineering granular hydrogel scaffolds to tailor cell response and wound healing*
10:05 am-10:20 am	Morning break
Session 6 – Chair: Tohid Didar	
10:20 am – 12:00 pm	**Mostafa Analoui** - *Biomedical Entrepreneurship: From Concept to Patients*
	Mehdi Kazemzadeh - *The FDA and Regulation of Medical Products*
	Reza Amin - *Commercializing Microfluidics & Tissue Engineering: From Lab Innovation to Scalable Business*
	Rheolution - *Innovative Non-Destructive Technology for Viscoelastic Testing of Soft Biomaterials*
	InPrint Bio – *Translating In Vivo Crosslinking Technologies into Regenerative Wound Dressings and Scaffolds*
	Eascra Biotech – *A case study discussion: Best practices for translating science research into a successful commercial business.*
12:00 pm -1:10 pm	Lunch break on your own
Keynote presentation – Chair: Ali Tamayol	
1:10 pm - 2:10 pm	**Yu Shrike Zhang** - *3D Bioprinting for High-Content Tissue Fabrication*
Session 7 – Chair: Ali Ahmadi	
2:10 pm - 3:00 pm	**Houman Savoji** - *Advanced Biofabrication of Functional Biomaterials for Cardiac Tissue Engineering and Heart-On-Chip Applications* **(Online)**
	Steven Cranford - *Editors-in-the-Loop: A Publisher's Perspective in the AI-Driven Science Era*
3:00 pm - 3:15 pm	Afternoon break
Session 8 – Chair: Kristo Nuutila	
3:15 pm - 5:00 pm	**Tannin Schmidt -** *Biomanufacturing recombinant human Proteoglycan 4 (rhPRG4) for dry eye disease clinical trials*
	Ali Ahmadi - *Peptide Foam Bioprinting: Engineering Porosity for Tissue Regeneration*
	Pier Francesco Ferrari - *Next-Generation Nanotechnologies for Cardiovascular Theranostics* **(Online)**
	Sara Badr - *Single-step embedded 3D printing of conductive hydrogel network with highly porous insulating foam*
	Jinhyung Lee - *Computation-aided Design of Rod-shaped Janus Base for Enhanced Tumoral Targeting*

Day 3: May 30th 2025	
8:00 am -8:15 am	Coffee break
Session 9 – Chair: Thanh Nguyen	
8:15 am -10:00 am	**Derek Rozensweig -** *Leveraging 3D biofabrication approaches for therapeutic screening and tissue regeneration*
	Mehdi Samandari - *Tailoring Scaffold Porosity for Controlling Cellular Behavior in Regenerative Medicine*
	Elmira Arab Tehrany-Kahn - *New Generation of Targeted Nanoliposome for Brain and Cancer Prevention* **(Online)**
	Pedro Leardin Silveira - *Transcellular Transport Model for Curcumin-Alginate Beads: A Computational and Experimental Study*
	Jacob Quint - *Light-Triggered Spatiotemporal Drug Release within 3D Bioprinted Tissue Models*
10:00 am-10:15 am	Morning break
Session 10 – Chair: Mehdi Samandari	
10:15 am – 11:40 pm	**Indranil Sinha -** *Progress In Composite Tissue Bioengineering and Future Applications*
	Niloufar Azami - *Precision by Design: 3D Printing and the Future of Personalized Orthodontics*
	Matthew Zambrello - *Therapeutic Potential of Soluble TLR2 Decoy Receptor in Attenuating Periodontitis*
	Noah Pereira - *Injectable Ceramic-Foam Scaffolds for Enhanced Bone Regeneration*
	Elika Shams - *How Do Single-Point Mutations Disrupt Extracellular Matrix Protein Function at the Molecular Level?*
11:40am–12:00pm	**Closing remarks**