

Program 32nd Annual Meeting, 30 November & 1 December 2023
at
the Conference center De Werelt

Conference rooms: AIR & WATER

Thursday, 30 November 2023

9.00-9.45	Registration & coffee & poster mounting
9.45-10.00	Welcome (Room: AIR)
10.00-11.00	Keynote lecture: Prof. Hélder Santos (Room: AIR) Full Professor in Biomedical Engineering at The University Medical Center Groningen/University of Groningen
11.00-11.15	Short coffee break

11.15-12.30 (10+2 min)	Oral Presentation Session 1 (AIR) <i>Smart hydrogel systems</i> Chair: <u>Joanna Zur Pinska</u>	Oral Presentation Session 2 (WATER) <i>Tissue healing</i> Chair: <u>Y Zhu</u>
01/02	Kimberly Brock, University of Twente <i>Thiol-mediated Coupling Chemistry as a Crosslinking Method to Prepare Dynamic Self-Healing Hydrogels</i>	Gizem Kutluogu, MedSkin Solutions/Radboudumc <i>Mimicking Burn Wound Environment in vitro: Eschar Fibroblasts vs Dermal Fibroblasts</i>
03/04	Kirill Mikhailov, University of Groningen/UMC Groningen <i>Biomedical self-synthesizing hydrogels with tunable mechanical properties</i>	Madalena Gomes, Amsterdam UMC <i>Proteomic analysis of primary human fetal, adult dermal and eschar mesenchymal cells and their secreted extracellular matrices</i>
05/06	Sanne van de Looij, Utrecht University <i>Diels-Alder Click-Chemistry as a Dynamic Crosslinking Method for Neo-Cartilage Tissue Engineering</i>	Merel Gansevoort, Radboudumc <i>The prenatal application of functionalized collagen scaffolds in a fetal sheep wound model induces a gene expression profile that results in enhanced skin regeneration</i>
07/08	Victor Veenbrink, Technical University Eindhoven <i>Cell Painting with supramolecular assemblies: exploring biomimicry with high-throughput screening</i>	Minghing Zhu, Amsterdam University <i>A Novel TGF-β3-Derived Peptide Promotes Chondrogenesis in vitro and in vivo</i>

09/10	Alexis Wolfel, University of Twente <i>Controlled and Tunable Biofunctionalization of Poly(acrylamide) Hydrogels with Cell-Adhesive Ligands</i>	Lieke van Dommelen, Radboudumc <i>Development of a Biodegradable Porous Hybrid Material to be used as a Patch for Diaphragmatic Hernia Closure</i>
11/12	Minye Jin, University of Twente <i>Stress-relaxing Bioinspired Dynamic Hydrogels for 3D Cell Encapsulation</i>	Roman Krymchenko, Radboudumc <i>Preparation of specific elastin hydrolysates and their in vitro evaluation during ECM deposition</i>

12.30-13.30	Lunch
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13.30-14.45 (10+2 min)	Oral Presentation Session 3 (AIR) <i>Nano- and micromaterial technologies</i> Chair: Lizzy Cuypers	Oral Presentation Session 4 (WATER) <i>3D printing & additive manufacturing</i> Chair: Davide Ribezzi
13/14	Melvin Gurian, University of Twente <i>Self-feeding living tissues via nutritional nanoparticles enables long-term stem cell functionality under anoxia</i>	Gabriele Addario, Maastricht University <i>3D bioprinted human renal tubulointerstitial model to study fibrosis: providing alternatives to in vivo models</i>
15/16	Aida Varela-Moreira, Utrecht University <i>The media composition influences LNPs internalization by Nucleus Pulposus Cells</i>	Gerardo Cedillo-Servin, UMC Utrecht <i>3D-printed magneto-active microfiber scaffolds for remote stimulation of skeletal muscle cells in vitro</i>
17/18	Mirko D'Urso, Technical University Eindhoven <i>Contact guidance triggers fibroblast activation</i>	Adrián Seijas Gamardo, Maastricht University <i>Modelling the innervation in endometriosis: A biofabrication strategy for generating organized complex 3D in vitro models</i>
19/20	Castro Johnbosco, University of Twente <i>Modulating microscale mechanics of single cell microenvironment via cell tethering in single cell microgels to guide stem cell function</i>	Dmitrii Iudin, Utrecht University <i>Shrinkable Hydrogels for Resolution Enhancement in 3D (Bio)printing</i>
21/22	Juul Verbakel, Technical University Eindhoven <i>Poking inside the cell: Using surface topographies to control Golgi morphology</i>	Farhad Sanaei, Radboudumc <i>Assessing Printability of Bio-inks by Means of Capillary Rheology</i>
23/24	Johanna Husch, University of Twente	Piotr Zielinski, University of Groningen <i>Drug-Loaded PLGA Nanoparticles Embedded Within Melt Electrowritten Scaffolds as Drug Delivery Systems</i>

	<i>Exploring Microgel Technology for High-Throughput Formation of Osteoclasts</i>	
14.45-15.15	Coffee break & check in into rooms	
15.15-16.30 (10+2 min)	Oral Presentation Session 5 (AIR) <i>Bone & cartilage regeneration</i> Chair: <u>Johanna Husch</u>	Oral Presentation Session 6 (WATER) <i>Blood and vascular engineering</i> Chair: <u>Sofia Artomonova</u>
25/26	Daphne Messen, Technical University Eindhoven <i>Cartilage Organoid Production with Human Induced Chondroprogenitor Cells</i>	Encheng Ji, Erasmus MC <i>In Vitro Co-Culture Of Tissue-Engineered Mineralised Cartilage And Vessel Networks To Model Endochondral Ossification</i>
27/28	Flurina Staubli, UMC Utrecht <i>Enhancing Chondrogenic Differentiation for Endochondral Bone Regeneration: The Impact of Cell Number, Signaling Factors and Hypertrophy</i>	Francisca Gomes, University of Twente <i>Erythrocyte Membrane-Inspired Lipid Coatings For Blood Substitutes</i>
29/30	Lena Stoecker, Technical University Eindhoven <i>Towards Fabrication of Osteoinductive Scaffolds</i>	Magdalena Gladysz, University of Groningen <i>Endothelial Cells and Astrocytes Growth Variations on Melt-Electrowritten Scaffolds for Blood-Bain Barrier Modeling</i>
31/32	Martyna Nikody, Maastricht University <i>Novel Bioactive Glasses From the SiO₂-CaO-Na₂O System for Bone Regeneration Applications</i>	Imke Jansen, Erasmus MC <i>A tissue-engineered model of the atherosclerotic plaque cap with microcalcifications</i>
33/34	Chong Huang, Radboudumc <i>Tooth-on-a-chip co-culture model to study the early-stage interaction between dental epithelial and mesenchymal cells</i>	Margot Passier, Technical University Eindhoven <i>Computational modeling of sprouting angiogenesis mechanoresponse</i>
35/36	Liline Fermin, Maastricht University <i>Unravelling the role of biomaterial properties in orchestrating osteoclastogenesis events during biomaterials-driven bone regeneration</i>	Jirawat Iamsamang, Technical University Eindhoven <i>Designing Fibrous Tubular Scaffolds for Enhanced Mechanical Performance in Vascular Engineering</i>
16.30-16.45	Coffee break	

16.45-18.30	Thesis award & NBTE general assembly (Room: AIR)
18.30-19.00	Sponsor introduction (Room: AIR)
19.00-20.00	Dinner
20.00-21.00	Evening lecture: Prof. Eric van Sebille (Room: AIR) Professor of Oceanography and Public Engagement at Utrecht University
21.00-22.00	Pubquiz (Room: FIRE)
22.00-0.00	Get together with drinks (Room: FIRE)

Friday, 1 December 2023

7.00-9.00	Breakfast
9.00-10.00	Rapid-fire poster parallel session (Rooms: AIR & WATER)
10.00-11.15	Poster session (Room: FIRE)
11.15-12.45	Focus symposium (Room: AIR) Monize Caiado Decarli, University of Groningen Mani Diba, Radboudumc Tommaso Ristori, Technical University Eindhoven Niloofar Tahmasebi Birgani, Maastricht University
12.45-14.00	Lunch Meet the Mentor
14.00-15.00	Panel discussion (Room: AIR) Young PIs discuss their personal experiences on their academic journey (moderator: <i>Aurelie Carlier</i>) Panelists: Monize Caiado Decarli, University of Groningen Mani Diba, Radboudumc Tommaso Ristori, Technical University Eindhoven Niloofar Tahmasebi Birgani, Maastricht University
15.00-15.30	Coffee break

15.30-16.45 (10+2 min)	Oral Presentation Session 7 (AIR) <i>Miniaturized systems</i> Chair: <u>Niels Willemen</u>	Oral Presentation Session 8 (WATER) <i>Modulating the immune response</i> Chair: <u>Martyna Nikody</u>
37/38	Marieke Meteling, University of Twente <i>How 3D microtissue formation directs chondrogenic lineage commitment of stem cells</i>	Els Alsema, RIVM/Technical University Eindhoven <i>Establishing Predictive Relationships Between In Vitro Macrophage Assays and In Vivo Implant Fibrosis</i>
39/40	Ceri-Anne Suurmond, Radboudumc <i>Bone Metastatic Spheroid Model for Preclinical Assessment of Novel Anticancer Drugs and Biomaterials</i>	Hannah Brouwer, Technical University Eindhoven <i>The Interplay Between 3D Extracellular Matrix Organization And Macrophages During Tissue Remodelling</i>
41/42	Carolina Serrano Larrera, University of Twente <i>Fat Pad-on-chip: Advancing Adipose Tissue Modeling through 3D Culture, Mechanical Stimulation, and Disease Applications</i>	Maria Lobita, University of Groningen/UMC Groningen <i>Incorporation of Copper Metal Framework Nanoparticles into Polymeric Microneedles to target the M1-type Macrophages</i>
43/44	Marta Valverde, Utrecht University <i>Engineering a Biomimetic Glomerular Filtration Barrier Chip for Diabetic Nephropathy Modeling</i>	Sofia Artamonova, Technical University Eindhoven <i>Spatiotemporal Assessment of Pathophysiological Tissue Remodeling in Resorbable Synthetic In Situ Tissue-Engineered Heart Valves in Sheep</i>
45/46	Sarah Pragnere, Technical University Eindhoven <i>Engineering Tissue Microarchitecture: The Role of Cell Contractility and Matrix Properties</i>	Bram Zoetebier, University of Twente <i>Injectable Hydrogels for Neutralizing Inflammatory and Pro-Catabolic Cytokines</i>
47/48	Jaehyeon Kim, Maastricht University <i>OviChip : 3D in vitro Oviduct Model</i>	Y Ji, University of Groningen/UMC Groningen <i>Visible Light Responsive Reversible Photoacids-Based Core-Shell Nanogels for Antifouling Surface Coating</i>
16.45-17.00	Short coffee break	
17.00-17.30	Announcements, awards ceremony & closure of the meeting (Room: AIR)	