

### Program 29th Annual Meeting, 26 & 27 November 2020

at

### ONLINE

### Thursday, 26 November

12.30	Opening
12.35 – 13.15	Opening Keynote Lecture:
	Organ on Chips as Models of Human Physiology with Focus on
	Neurovascular Models
	Prof. Dr. Anna Herland (KTH Royal Institute of Technology Sweden)

## 13.15 – 13.30 Coffee break

13.30 - 13.35	Optics11 pitch
13.35 – 14.35	Oral Presentations
(10+2 min)	
01	High-throughput screening to elucidate biomaterial-induced fibrosis <u>T van der Boon</u> , W.J. Kolff Institute, University of Groningen
02	Steering keratocyte phenotype and collagen production using micro- patterned cell culture substrates
	<u>C van der Putten</u> , Department of Biomedical Engineering, Eindhoven University of Technology
03	Testing Bone Adhesive Barrier Membranes Based on Alendronate and N-hydroxysuccinimide-functionalized Poly(2-oxazoline)s for Guided Bone Regeneration on a New Ex Vivo Perfusion-Based
	Mandibular Model
	<u>M van Erk</u> , Department of Surgery, Radboud University Medical Centre
04	Directing lineage commitment in kidney organoids using supramolecular materials
	<u>J van Sprang</u> , Department of Biomedical Engineering, Eindhoven University of Technology
05	Cardiac fibroblast mechanoresponse guides anisotropic organization of hIPSC-derived cardiomyocytes <u>D Mostert</u> , Department of Biomedical Engineering, Eindhoven University of Technology

15.00 - 16.00	Oral Presentations
(10+2 min)	
06	Influence of microcapsule parameters and initiator concentration on
	the self-healing capacity of resin-based dental composites
	K Ning, Department of Dentistry, Radboud University Medical Center
07	Human Platelet Lysate Defeats Fetal Bovine Serum for Human
	Osteoclast Formation and Resorption
	B de Wildt, Department of Biomedical Engineering, Eindhoven University
	of Technology
08	Copper-Containing Mesoporous Bioactive Glass nanoparticles for
	Therapeutic Application in Bone Regeneration
	N Besheli, Department of Dentistry, Radboud University Medical Center
09	Cartilage Tissue Engineering using Bioinspired Growth Factor
	Immobilization on Microfiber Scaffolds
	MJ Ainsworth, Department of Orthopedics, University Medical Center
	Utrecht
10	Bone-Adhesive Barrier Membranes Based on Alendronate-
	Functionalized Poly(2-oxazoline)s
	MJ Sánchez-Fernández, Department of Dentistry-Regenerative
	Biomaterials, Radboud University Medical Center

16.00 – 16.30 Coffee break and break-out room Optics11

16.30 - 16.40	Scientific Photo Competition award
16.40 - 17.30	General Assembly

# **NBTE Focus session**

19.30 – 21.00	Battle of the Matrix: natural or synthetic matrices
	Prof. Dr. Janette Burgess University Medical Center Groningen
	Dr. Matthew Baker Maastricht University
	Plenary Discussion

# Friday, 27 November

09.00 - 9.45	Belgian Society for Tissue Engineering Keynote:
	From brewing beer to building bone
	Prof. Dr. Liesbet Geris (KU Leuven)

# 9.45 – 10.15 Coffee break and break-out room Optics11

10.15 – 11.15	Oral Presentations
(10+2 min)	
11	Hydrogel-based bioinks for cell electrowriting of well-organized living structures with micrometer-scale resolution
	P.N. Bernal, Department of Orthopedics, University Medical Center Utrecht
12	Zonal-cell density 3D bioprinting for biomimetic cartilage tissue
	engineering
	PJ Díaz-Payno, Department of Biomechanical Engineering, Delft University
	of Technology
13	Melt Electrowriting of a Meniscus Scaffold seeded with MSCs and
	Meniscus Cells
	JV Korpershoek, Department of Orthopaedics, Regenerative Medicine,
	University of Utrecht
14	Bioengineering Clinically-Sized Microporous Annealed Scaffolds via In-
	Air Production of Dual-Crosslinking Microgels
	M Schot, Department of Developmental BioEngineering, University of Twente
15	Silk-based Materials to Create High Resolution Three-dimensional
	Structures Using Electrohydrodynamic Printing
	M. Viola, Department of Orthopedics, University Medical Center Utrecht

# 11.15 – 11.30 Coffee break and break-out room Optics11

11.30 - 12.30	Oral Presentations
(10+2 min)	
16	Patterning Self-Organizing Microvascular Networks within Engineered
	Matrices
	D. Rana, Department of Biomedical Engineering, University of Twente
17	A new non-invasive technique for measuring the 3D-oxygen gradient in
	wells during mammalian cell culture
	CJ Peniche Silva, MERLN Institute for Technology-Inspired Regenerative
	Medicine, Maastricht University
18	Generation of Immunoprotective and Enzymatically Crosslinked
	Polyethylene Glycol-Tyramine Microcapsules for Beta-cell Delivery
	using Microfluidics
	<u>N Araújo-Gomes</u> , Department of Developmental BioEngineering, University
	of Twente
19	Assessment of the Neutrophil Response to a Panel of Synthetic and
	Natural derived Biomaterials; a Novel Comprehensive in vitro Approach
	M Wesdorp, Erasmus MC, University Medical Center Rotterdam
20	Synovial membrane on chip: studying immune response over
	inflammation in a multi-cellular system
	CA Paggi, Department of Developmental BioEngineering, University of
	Twente
12.30	Closure of the meeting