



NBTTE
Netherlands society for
Biomaterials and Tissue Engineering

Program 26th Annual Meeting, 29 & 30 November 2017

at

“De Werelt congress center”, Westhofflaan 2, 6741 KH Lunteren

Wednesday, 29 November

09.15 – 9.45	Registration and coffee
9.45 – 10.00	Welcome

10.00 – 11.15 (10+2 min)	Oral Presentations Chair: Iris Otto
01	Mylène de Ruijter , <i>UMC Utrecht-Orthopedics, Utrecht</i> Converging of melt electrospinning writing and extrusion based bioprinting for cartilage tissue regeneration
02	Damla Keskin , <i>UMC Groningen- Biomedical Engineering, Groningen</i> Facile Hydrogel Coatings for Silicone-Based Biomaterials
03	Victor Galván Chacón , <i>Maastricht University-MERLN, Maastricht</i> Production and characterization of bioactive calcium phosphate ceramic microparticles using droplet microfluidics
04	Gwenda Vasse , <i>UMC Groningen-Biomedical Engineering, Groningen</i> Collagen Morphology Influences Macrophage Shape and Marker Expression in Vitro
05	Stefan Remmers , <i>TU Eindhoven- Orthopaedic Biomechanics, Eindhoven</i> A Model for Osteoclastogenesis and Osteoclastic Resorption
06	David Barata , <i>University of Twente-MIRA, Enschede</i> Novel polylactic acid microfluidic device with 3D micropatterned topographical features as a novel platform for biomaterials biological characterization

11.15 – 11.35	Coffee break
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11.35 – 12.50 (10+2 min)	Oral Presentations Chair: Nicole van Gestel
07	Rabeil Sakina , <i>Maastricht University-MERLN, Maastricht</i> Electrospun fiber orientation and its influence on cardiomyocyte organization <i>in vitro</i>
08	Jiamian Wang , <i>Radboud UMC- Biomaterials, Nijmegen</i> The effects of polymer end group on the release of Doxycycline from electrospayed PLGA microspheres

09	Silvia Caddeo , <i>ACTA- Oral Cell Biology, Amsterdam</i> New 3D glass-ceramic scaffolds functionalized with bioartificial blend to model the normal and osteoporotic bone
10	Willeke Daamen , <i>Radboud UMC-RIMLS, Nijmegen</i> Functionalized Collagen Scaffolds Result in Sustained Postnatal Regeneration after <i>in utero</i> Closure of Skin Defects in Sheep
11	Alessia Longoni , <i>UMC Utrecht- Oral and Maxillofacial Surgery & Special Dental Care, Utrecht</i> The feasibility of endochondral bone regeneration from xenogeneic MSCs
12	Kavitha Sivasubramaniyan , <i>Erasmus MC-Orthopaedics, Rotterdam</i> Site-specific and Functional Heterogeneity of Mesenchymal Stem/Stromal Cells in Bone Marrow

12.50 – 13.05	Thesis award
13.05 – 14.00	Lunch

NVMB/NBTE Joint Symposium

14.00 – 15.30 (45 min)	NVMB/NBTE symposium: Chair: Patricia Dankers
NVMB 1	Dr. Roberto Narcisi , <i>Erasmus MC-Orthopaedics, Rotterdam</i> Looking for the best way to regenerate articular cartilage
NVMB 2	Dr. Janette Burgess , <i>UMC Groningen-Pathology and Medical Biology, Groningen</i> The extracellular matrix in lung fibrosis: friend or foe?

15.30 – 15.45	Short Coffee Break
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15.45 – 16.45 (10+2 min)	Oral Presentations Chair: David Gomes
13	Nathan Kucko , <i>Radboud UMC- Biomaterials, Nijmegen</i> The influence of γ irradiation on the handling and degradation properties of carboxymethyl cellulose/poly (lactic-co-glycolic acid) calcium phosphate composite cements
14	Jip Zonderland , <i>Maastricht University, Maastricht</i> A novel platform for 3D expansion and migration of hMSCs
15	João Pedro Garcia , <i>UMC Utrecht-Orthopedics, Utrecht</i> Combined Delivery of Cells and Gapmers as a Strategy for Gene Modulation in Osteoarthritis
16	Taraneh Mokabber , <i>University of Groningen-ENTEG, Groningen</i> The interaction of bone-like cells with electrodeposited calcium phosphate coatings
17	Martijn Riool , <i>AMC Amsterdam- Medical Microbiology, Amsterdam</i> Novel synthetic antimicrobial and anti-biofilm peptides are highly effective against implant-associated and wound infections by drug-resistant bacteria
16.45 – 17.00	Coffee Break

17.00 – 18.15	NBTE members Annual Meeting
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18.15 – 20.30 *Dinner*

20.30 – 21.30

Invited lecture

“Should I stay or should I go”-

*Bottom-up designed 3D Scaffolds for
Controlled Cell Migration and Tissue
Engineering*

Prof. dr. Doris Heinrich

Professor of Biophysics
Leiden Institute of Physics, LION
Huygens-Kamerlingh Onnes Lab
Leiden University
Netherlands

Head of Fraunhofer Attract-Group '3DNanoCell'
Fraunhofer-Institut für Silicatforschung ISC
Neunerplatz 2
Würzburg
Germany

21.30 –

Party time!

Thursday, 30 November

09.00 – 10.15 (10+2 min)	Oral Presentations Chair: Gwenda Vasse
18	Qihui Zhou , <i>UMC Groningen- Biomedical Engineering, Groningen</i> Orthogonal Double Gradient for Determining Combined Influences of Stiffness and Wettability on Stem Cell Behavior
19	Fiona Passanha , <i>Maastricht University-MERLN, Maastricht</i> The role of cadherin signaling in the differentiation of mesenchymal stem cells
20	Sónia Schickert , <i>Radboud UMC-Biomaterials, Nijmegen</i> Biological performance of a PVA fiber-reinforced calcium phosphate cement for load-bearing bone regeneration
21	Valentina Vignali , <i>UMC Groningen- Biomedical Engineering, Groningen</i> Biocatalytic Surface Modification of Viruses
22	Thijs Pasman , <i>University of Twente, Enschede</i> Evaporation-induced phase separation in the fabrication of porous, microstructured poly(trimethylene carbonate) membranes for cell culturing
23	Andrea Lolli , <i>Erasmus MC- Orthopaedics, Rotterdam</i> AntimiR-221 loaded fibrin/hyaluronic acid hydrogel for the guidance of endogenous cartilage repair

10.15 – 10.30	Coffee break
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10.30 – 11.10	Rapid fire Poster Presentations (1 min sharp, one slide) Chair: Joao Garcia
P1-P34	<p>Ana Maria Almonacid Suarez UMC Gron., Path. & Med. Biol., Groningen</p> <p>Aysegul Dede Eren Maastricht University, MERLN, Maastricht</p> <p>Barbara Klotz UMC Utrecht, Oral & Maxillofacial Surgery, Utrecht</p> <p>Dan Jing Wu TU Eindhoven, Biomedical Engineering, Eindhoven</p> <p>Danique Hof Radboud UMC, Biochemistry, Nijmegen</p> <p>Debby Gawlitta UMC Utrecht, Oral & Maxillofacial Surgery</p> <p>Deepti Rana University of Twente, Biomedical Engineering, Enschede</p> <p>Denise de Bont Maastricht University, MERLN, Maastricht</p> <p>Carl Schuurmans Utrecht University, Pharmaceutics, Utrecht</p> <p>Florencia Abinzano UMC Utrecht, Orthopedics, Utrecht</p> <p>Fredrik Tengström Maastricht University, MERLN, Maastricht</p> <p>Giulia Marchioli TU Eindhoven, Biomedical Engineering, Eindhoven</p> <p>Guangyue Zu UMC Groningen, Biomedical Engineering, Groningen</p> <p>Jia Liang University of Twente, Biomaterials Science & Technology</p> <p>Jiankang Song TU Eindhoven, ICMS, Eindhoven</p> <p>Khadija Mulder Maastricht University, MERLN, Maastricht</p> <p>Koen Dijkstra UMC Utrecht, Orthopedics, Utrecht</p> <p>Liangliang Yang UMC Groningen, Biomedical Engineering, Groningen</p> <p>Lu Ge UMC Groningen, Biomedical Engineering, Groningen</p> <p>Maike Schotman TU Eindhoven, Biomedical Engineering, Eindhoven</p> <p>Maike Werner TU Eindhoven, Biomedical Engineering, Eindhoven</p> <p>Mariana Carvalho Maastricht Uni./ University Minho, MERLN, Maastricht</p> <p>Matilde Putti TU Eindhoven, Biomedical Engineering, Eindhoven</p> <p>Rick de Vries Maastricht University, MERLN, Maastricht</p> <p>Robin Nadar Radboud UMC, Biomaterials, Nijmegen</p>

	<p>Ronald van Gaal TU Eindhoven, Soft Tissue Eng. & Mechanobiol., Eindhoven</p> <p>Stein Fabian University of Twente, MIRA, Enschede</p> <p>Urandelger Tuvshindorj Maastricht University, MERLN, Maastricht</p> <p>Vasileios Trikalitis University of Twente, Engineering Technology, Enschede</p> <p>Wim de Jong RIVM, Centre for Health Protection, Bilthoven</p> <p>Zarina Nauryzgaliyeva Maastricht University, MERLN, Maastricht</p> <p>Linfeng Li Maastricht University, MERLN, Maastricht</p> <p>Imke Jansen UMC Utrecht, Orthopaedics, Utrecht</p>
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11.10 – 12.30	Poster presentations and drinks
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12.30 – 13.20	Lunch Break
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13.20 – 14.35 (10+2 min)	Oral Presentations Chair: Nathan Kucko
24	Marlon Osorio Delgado , <i>Universidad Pontificia Bolivariana-Engineering, Medellin, Colombia</i> Surface Modification of Three-dimensional Bacterial Nanocellulose Biomaterials with adhesion proteins
25	Iris Otto , <i>UMC Utrecht-Orthopaedics, Utrecht</i> Cartilage Tissue Engineering using Auricular Cartilage Progenitor Cells
26	Johanna Melke , <i>TU Eindhoven-Institute for Complex Molecular Systems, Eindhoven</i> Tissue engineered bone – from stem cells to osteocytes
27	Christine Rustenburg , <i>VU UMC-Orthopaedic Surgery, Amsterdam</i> Is intervertebral disc degeneration a type of osteoarthritis?
28	Irene Lodoso-Torrecilla , <i>Radboud UMC-Biomaterials, Nijmegen</i> Multimodal Porogen Platforms for Calcium Phosphate Cements
29	Nicole van Gestel , <i>TU Eindhoven-Orthopaedic Biomechanics, Eindhoven</i> The Effect of Dissolution Ions from Bioactive Glass Granules on Cells Involved in Bone Healing and Remodeling

14.35 – 14.50	Coffee break
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14.50 – 15.50 (10+2 min)	Oral Presentations Chair: Thijs Pasman
30	Xiaolin Zhang , <i>AMC-Medical Microbiology, Amsterdam</i> Gelatin Nanospheres Deliver Vancomycin Intracellularly into Macrophages of Zebrafish Embryos and Protect against <i>Staphylococcus aureus</i> Infection
31	Bastiaan Ippel , <i>TU Eindhoven- Cell and Tissue Engineering, Eindhoven</i> Robust supramolecular incorporation of anti-fouling additives in electrospun scaffolds
32	Jinlong Shao , <i>Radboud UMC-Biomaterials, Nijmegen</i> Biological Evaluation of Silver Nanoparticles incorporated into Chitosan-based Membranes
33	Melanie Krüger , <i>LifeTec Group B.V., Eindhoven</i> Flow controls cell proliferation and tissue production in cellulose nanofibril hydrogels
34	David B Gomes , <i>Maastricht University, Maastricht</i> Development of a 3D pH-sensitive hydrogel system

15.50	Announcement of the chair, poster and presentation awards
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16.00	Closure of the meeting
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