



NBT E

**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: Andrea Lolli
01	Mylène de Ruijter , <i>UMC Utrecht-Orthopedics, Utrecht</i> Converging of melt electrospinning writing and extrusion based bioprinting for cartilage tissue regeneration
02	Jinlong Shao , <i>Radboud UMC-Biomaterials, Nijmegen</i> Biological Evaluation of Silver Nanoparticles incorporated into Chitosan-based Membranes
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 electrosprayed 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– 13.45	Lunch
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NVMB/NBTE Joint Symposium

13.45 – 15.15 (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?

15.15 – 15.30	Short Coffee Break
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15.30 – 16.30 (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
16.30 – 16.50	Coffee Break

16.50 – 18.00	NBTE members Annual Meeting
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18.15 – 20.30	Dinner
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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	Marlon Osorio Delgado , <i>Universidad Pontificia Bolivariana-Engineering, Medellin, Colombia</i> Surface Modification of Three-dimensional Bacterial Nanocellulose Biomaterials with adhesion proteins
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: Silvia Caddeo
P1-P34	<p>Ana Maria Almonacid Suarez UMC Gron., Path. & Med. Biol., Groningen Aysegul Dede Eren Maastricht University, MERLN, Maastricht Barbara Klotz UMC Utrecht, Oral & Maxillofacial Surgery, Utrecht Dan Jing Wu TU Eindhoven, Biomedical Engineering, Eindhoven Danique Hof Radboud UMC, Biochemistry, Nijmegen Debby Gawlitta UMC Utrecht, Oral & Maxillofacial Surgery Deepti Rana University of Twente, Biomedical Engineering, Enschede Denise de Bont Maastricht University, MERLN, Maastricht Eroumé Kerbaï Saïd Maastricht University, MERLN, Maastricht Florencia Abinzano UMC Utrecht, Orthopedics, Utrecht Fredrik Tengström Maastricht University, MERLN, Maastricht Giulia Marchioli TU Eindhoven, Biomedical Engineering, Eindhoven Guangyue Zu UMC Groningen, Biomedical Engineering, Groningen Jia Liang University of Twente, Biomaterials Science & Technology Jiankang Song TU Eindhoven, ICMS, Eindhoven Khadija Mulder Maastricht University, MERLN, Maastricht Koen Dijkstra UMC Utrecht, Orthopedics, Utrecht Liangliang Yang UMC Groningen, Biomedical Engineering, Groningen Lu Ge UMC Groningen, Biomedical Engineering, Groningen Maaïke Schotman TU Eindhoven, Biomedical Engineering, Eindhoven Maïke Werner TU Eindhoven, Biomedical Engineering, Eindhoven Mariana Carvalho Maastricht Uni./ University Minho, MERLN, Maastricht Matilde Putti TU Eindhoven, Biomedical Engineering, Eindhoven Rick de Vries Maastricht University, MERLN, Maastricht 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>Anna Tellegen Utrecht University, Veterinary Medicine, Utrecht</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	<i>Poster presentations and drinks</i>
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12.30 – 13.20	<i>Lunch Break</i>
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13.20 – 14.35 (10+2 min)	Oral Presentations Chair: Nathan Kucko
24	Qihui Zhou , <i>UMC Groningen- Biomedical Engineering, Groningen</i> Orthogonal Double Gradient for Determining Combined Influences of Stiffness and Wettability on Stem Cell Behavior
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	<i>Coffee break</i>
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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	Damla Keskin , <i>UMC Groningen- Biomedical Engineering, Groningen</i> Facile Hydrogel Coatings for Silicone-Based Biomaterials
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	<i>Announcement of the chair, poster and presentation awards</i>
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16.00	<i>Closure of the meeting</i>
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