

12 &amp; 13 DECEMBER

INTERNATIONAL

MICRO  
NANOCONFERENCE  
2017 AMSTERDAMTuesday 12<sup>th</sup> of December 2017  
morning

Opening and Morning Keynote Session							
<b>Chair</b>	09.30-09.45	<b>Albert van den Berg</b> , University of Twente and Chairman of the Program Committee of the iMNC / MinacNed					
<b>Keynote</b>	09.45-10.15	<b>Frank Koppens</b> , ICFO					
<b>Keynote</b>	10.15-10.45	<b>Holger Becker</b> , MFCS					
<b>Break</b>	10.45-11.15	<b>Break/exhibition/poster session</b>					
Parallel Sessions						MNBS Workshop	
<b>Morning session</b>	<b>11.15 - 12.45</b>	<i>Session title</i>	<i>Sensors</i>	<i>Biophotonics</i>	<i>Nanomedicine/ drug delivery / drug targeting</i>	<i>Entrepreneurial &amp; Business (1)</i>	<i>Project Innovation Session (1) (11.15-13.00)</i>
		<i>Chair</i>				Anne-Wil Lucas, Start-up Delta	<b>ANGELab</b> - Non-invasive diagnostics based on LabonaChip systems, <b>Jesus Ruano-Lopez</b> , IK4 Ikerlan, Spain
	<b>11.15-11.45</b>	<i>Invited speaker</i>	Characterization of miniaturized environmental sensors for mobile, wearables and IoT application <b>Nebojsa Nenanovic</b> , Austria Microsystems	<b>Bert Jan Offrein</b> , IBM Zurich, Switzerland		Evolving from a Start Up towards a Global Company <b>Jasper van Weerd</b> , LipoCoat (tbc)  <i>Start-up pitches</i>	<b>Hyposens</b> - Nano-confined photonic system for detection of breast cancer spread to the lymph nodes, <b>Martina Passarello</b> , LEITAT Technological Center Terrassa, Spain
	<b>11.45-12.00</b>		Plasmonic Substrates Based on DVD Manufacturing Techniques for Highly Sensitive Quantification of Biomolecules <b>Iris Prinz</b> , Stratec Consumables GmbH, Austria	Application of high-throughput label-free microarrays for biomolecular interaction studies <b>Günther Proll</b> , Biometrics, Germany	Protein coated magnetic nano hybrids for medical applications <b>Andreas Weidner</b> , Technische Universität Ilmenau, Germany	A Game-Changing Way of Investing in Early-Stage Innovation <b>Filip Merckx</b> , Imec.xpand (tbc)	<b>inSPECT</b> - Integrated Spectrometers for Spectral Tissue Sensing, <b>Jean Schleipen</b> , Philips
	<b>12.00-12.15</b>		Electronic Nose Technology for Agriculture <b>Aleksander Andreski</b> , Saxion	Fast and efficient detection of rare cells using CMOS-based low-cost quantum dot camera <b>Zihim Ding</b> , Anitoo Systems LLC, USA	Polyethylenimine-based Nanoparticles Decorated with Various Integrin Ligands Mimicking RGD Peptides for Targeted Delivery of Plasmid DNA <b>Ali Dehshahri</b> , Shiraz	<i>Start-up pitches</i>	<b>MEDILIGHT</b> - Developments towards a miniaturized smart system for light stimulation and monitoring of wound healing, <b>Martina Urbankova</b> , Amires, Czech Republic

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					University of Medical Sciences, Iran		
	<b>12.15-12.30</b>		Biofunctionalization as Key Step in Biosensor Applications – From R&D to Highthroughput Manufacturing <b>Wilfried Weigel</b> , Scienion AG, Germany	Si3N4 based miniaturized biosensors for sensitive detection of protein and DNA <b>Geert Besselink</b> , LioniX International	An innovative two-step reformulation platform for oral drug delivery using microfluidics <b>Bastiaan Kluft</b> , SeraNovo	Spinning-out University Technologies: a role for students in the commercialization process <b>Jes Broeng</b> , professor of Entrepreneurship and Innovation, DTU Fotonik, Lyngby, DK	<b>Dionysios Manassis</b> , Technical University Berlin, Germany  <b>SMARTDIAGNOS</b> – An EU Horizon 2020 innovation project to develop a new generation of fully integrated PCR-based infection diagnostics, <b>Anders Wolff</b> , Technical University of Denmark  <b>LiqBiopSens</b> – Detection of KRAS and BRAF mutations in colorectal cancer using blood liquid biopsy, <b>Juan J. Diaz Mochon</b> , DestiNA Genomics Ltd, UK  <b>InForMed</b> – An integrated pilot line for medical devices –SMART CATHETERS, covering the complete innovation chain from technology concept to system qualification
	<b>12.30-12.45</b>		Capacitive micromachined ultrasonic transducer platform <b>Rob van Schaijk</b> , Philips Innovation Services	Micro-ring resonator-based photonic systems for detection of various biomarkers <b>Gerald Ebberink</b> , Saxion	Modelling nanoparticle uptake and intracellular transport into cells and barriers <b>Christoffer Åberg</b> , University of Groningen	<i>Start-up pitches</i>	
<b>Break</b>	<b>12.45-14.00</b>	<b>Break/exhibition/poster session</b>					

**Tuesday 12 of December 2017**  
**afternoon**

		Parallel Sessions					MNBS Workshop
Afternoon session	14.00 - 15.30	<i>Session title</i>	<i>Microfluidics &amp; Analytical Systems (1)</i>	<i>Fabrication at Nanoscale</i>	<i>Organ-on-Chip (1)</i>	<i>Entrepreneurial &amp; Business (2)</i>	<i>Project Innovation Session (2) (14.00 – 15.45)</i>
		<i>Chair</i>					
	14.00-14.30	<i>Invited speaker</i>		<b>Fengzhou Fang</b> , MNMT-Dublin	<b>Olivier Guernat</b> , AlveoliX, Switzerland	The Story of Avantes as an Example that Success is No Accident <b>Benno Oderkerk</b> , Avantes  <i>Start-up pitches</i>	<b>Keynote: One Health (DMC-MALVEC &amp; DIAGORAS)</b> - Interfacing human diagnostics with vector control towards a holistic healthcare approach against infectious diseases, <b>Konstantinos Mitsakakis</b> , IMTEK, Germany  <b>AllerScreening</b> - Point-of-care device based on KETs for diagnosis of food allergies  <b>PhasmaFOOD</b> - Portable photonic miniaturised smart system for on-the-spot food quality sensing, <b>Paraskevas Bourgos</b> , WINGS ICT Solutions, Greece  <b>PROTEUS</b> - Carbon nanotubes approach in water quality monitoring, <b>Nicolas Giunta</b> , Easy Global Market Valbonne, France
	14.30-14.45		The Effect of Microchamer Geometry on the Efficiency of Magnetic Microbead Mixing <b>Eriola Shanko</b> , Technical University of Eindhoven	Recent Applications of 3D Microprinting in Medicine and Biology <b>Jochen Zimmer</b> , Nanoscribe GmbH, Germany	Organ on a chip : An Updated Commercialisation Report Card 2017 <b>Malcolm Wilkinson</b> , Kirkstall Ltd, United Kingdom	Investing in the Technology, Medtech, and Healthcare Sectors <b>Dick Sietses</b> , Health Innovations (tbc)	<b>LoveFood2Market</b> – A portable MicroNano-BioSystem and Instrument for ultra-fast analysis of pathogens in food: Innovation from lab prototype to pre-commercial instrument, <b>Electra Gizeli</b> , IMBB-Forth, Greece  <b>SOCKETMASTER</b> – Development of a Master Socket for optimised design of prosthetic socket for lower limb amputees, <b>Jianxin Gao</b> , TWI Ltd, UK
	14.45-15.00		Integrated Flow Control Based on Capillary Burst Valves and Electrostatic Actuation Mechanism for Sequential Flow of Reagents <b>Aliki Tsopela</b> , Micronit Microtechnologies	Enhanced control over Carbon Nanotube textile synthesis using a micro Coriolis device <b>Wouter Sparreboom</b> , Bronkhorst High Tech	Gut On-A-Chip: Towards a More Physiological and Predictive Human Intestinal Barrier Model <b>Lianne Stevens</b> , TNO	<i>Start-up pitches</i>	<b>Phocnosis</b> - Advanced nanophotonic point-of-care analysis device for fast and early diagnosis of cardiovascular diseases  <b>SAPHELY</b> - Self-amplified photonic biosensing platform for microRNA-based early diagnosis of
	15.00-15.15		Detection of IV medicine mixture composition at low flows <b>Rory Dijkink</b> , Saxion	A chip-based, widely tunable InP-Si3N4 hybrid laser with ultra-high coherence <b>Youwen Fan</b> , University of Twente	Using 3D-Printing to Fabricate Microfluidic Vascular Models to Mimic Arterial Thrombosis <b>Hugo Albers</b> , University of Twente	Investing in Research Based Companies in Their Early Stages of Development <b>Lucille Bonnet</b> , investment manager	

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						High-Tech Gründerfonds, Germany	diseases, <b>Jaime Garcia-Ruperez</b> , Universitat Politecnica de Valencia, Spain
	<b>15.15-15.30</b>		Microfluidic devices for UV-Vis spectroscopy for illicit drug detection <b>Brigitte Bruijns</b> , University of Twente	<b>Tobias Mueller</b> , Fraunhofer IPT	Development of a 3D in vitro platform for functional and structural interrogation of neuronal circuits <b>Paolo Cesare</b> , NMI	<i>Start-up Pitches</i>	<b>SMARTER-SI</b> - Smarter Access to Manufacturing for Systems Integration, <b>Eric Moore</b> , Tyndall Institute, Ireland & <b>Guy Voirin</b> , CSEM, Switzerland  A framework for multi-stakeholder/ecosystem driven innovation - Results from InSSight, <b>Mark de Colvenaer</b> , DSP Valley, Belgium
<b>Break</b>	<b>15.30-16.00</b>	<b>Break/exhibition/poster session</b>					
<b>Afternoon Keynote Session and Closure of the Day</b>							
<b>Chair</b>		Cas Damen, Twente Solid State and member of the Organizing Committee of the iMNC / MinacNed					
<b>Keynote</b>	<b>16.00-16.30</b>	<b>Stefaan Desmedt</b> , Ghent University, Belgium					
<b>Keynote</b>	<b>16.30-17.00</b>	<b>Juergen Brugger</b> , EPFL, Switzerland					
<b>Workshop</b>	<b>17.00-18.00</b>	<b>InSSight Workshop : An ecosystem view on Micro Nano Bio Systems</b> Interactive discussion on multi-stakeholder, cross-discipline, interregional innovation					
	<b>19.00-20.30</b>	<b>Conference Dinner</b>					

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## Wednesday 13<sup>th</sup> of December 2017 morning

Opening and Morning Keynote Session						
Chair	08.55-09.00					
Keynote	09.00-09.30	Jan Korvink, KIT, Germany				
Keynote	09.30-10.00	Atomic layer deposition: an enabling technology for large-area to nanoscale applications Erwin Kessels, Eindhoven University of Technology				
Break	10.00-10.45	<i>Break/exhibition/poster session</i>				
Parallel Sessions				MNBS Workshop		
Morning session	10.45-12.15	<i>Session title</i>	<i>Microfluidics &amp; Analytical Systems (2)</i>	<i>Characterization at Nanoscale (2)</i>	<i>Organ-on-Chip (2)</i>	<i>Ecosystems and key innovation MNBS issues (1)</i>
		<i>Chair</i>				
	10.45-11.15	<i>Invited speaker</i>	<b>Laura Lechuga</b> , Catalan Institute of Nanoscience and Nanotechnology, Spain	Structure-properties relationship determination at the nanoscale using advanced electron microscopy <b>Nicolas Gauquelin</b> , University of Antwerpen, Belgium	<b>Peter Loskill</b> , Fraunhofer Institute for Interfacial Engineering and Biotechnology	The TRL loop of innovation, Technology Assessment (HTA), <b>Furio Gramatica</b> , Fondazione Don Carlo Gnocchi Onlus, Italy  Standardisation of MNBS Building Blocks for manufacturing, <b>Petra Weiler</b> , VDI/VDE-IT, Germany  Multi-stakeholder innovation & SMEs, <b>Richard Crotty</b> , Environmental Laboratory Services Ltd.  User perspective and real-life implementation on MNBS, Speaker(s) tbc
	11.15-11.30		Commercial Value and Challenges of Drop-Based Microfluidic Screening Platforms - An Opinion <b>Christian Holtze</b> , BASF SE, Germany	Lighting up molecules in large-scale multi-modal electron microscopy <b>Ben Giepmans</b> , UMC Groningen	Modeling the pre-invasive breast cancer microenvironment using high-throughput microfluidic cell encapsulation <b>Jelle Sleebom</b> , Technical University of Eindhoven	European Developments on Organ-on-a-Chip, <b>Janny van den Eijnden</b> , hDMT
	11.30-11.45		Microfluidic droplet arrays for rapid single cell culture and analysis <b>Amin Hassanzadehbarforoushi</b> , University of New South Wales, Australia	Optimized MEMS-based sample carrier for in-situ heating in the Transmission Electron Microscope <b>Tijn van Omme</b> , DENSsolutions	Characterizing micromechanical viscoelastic properties of soft tissues and (bio)materials in physiological-like conditions <b>Giorio Mattei</b> , Optics11	
	11.45-12.00		Generator – Collector Electrochemical Sensor Configurations Based on Track-Etch Membrane Separated Platinum Leaves. <b>Gianmario Scotti</b> , University of Helsinki, Finland	New modalities in Re-scan Confocal Microscopy (RCM) <b>Erik Manders</b> , University of Amsterdam	Three-Stage Enzymatic Digestive System for a Gut-on-a-Chip <b>Pim de Haan</b> , University of Groningen	

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	<b>12.00-12.15</b>	Generator – Collector Electrochemical Sensor Configurations Based on Track-Etch Membrane Separated Platinum Leaves. <b>Hamid Zafarani</b> , Technical University of Delft	Characterization of porosity & flow in battery materials with 3D reconstruction of plasma FIB serial slice. <b>Daniel Phifer</b> , Thermo Fisher Scientific	96 perfusable blood vessels to study vascular permeability in vitro <b>Vincent van Duinen</b> , LUMC	
<b>Break</b>	<b>12.15-13.30</b>	<b><i>Break/exhibition/poster session</i></b>			

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2017 AMSTERDAMWednesday 13<sup>th</sup> of December 2017

afternoon		Parallel Sessions				MNBS Workshop
Afternoon session	13.30-15.00	<i>Session title</i>	Microfluidics & Analytical Systems (3)	Thin films: fabrication and characterization	Organ-on-Chip (3)	Ecosystems and key innovation MNBS issues (2)
		<i>Chair</i>	Sammy Datwani			
	13.30-14.00	<i>Invited speaker</i>	Microfluidic standardisation: part 1 Interfacing ( <b>Marko Blom</b> , Micronit), part 2 Testing and characterization ( <b>Alexios Tzannis</b> , IMT)	<b>Eric Louis</b> , MESA+	<b>Ashutosh Agarwal</b> , University of Miami	Smart Anything Everywhere and Digital Innovation Hubs, <b>Rainer Günzler</b> , Hahn-Schickard Freiburg, Germany
	14.00-14.15		Surface modification for point-of-care devices <b>Wout Knoben</b> , Surfex BV	Model independent approach for the analysis of GIXR data from thin films <b>Igor Makhotkin</b> , MESA+	Human gut-on-a-chip as a model for bioavailability and biotransformation studies <b>Hans Bouwmeester</b> , RIKILT	Cross KET innovation for Healthcare, Speaker(s) tbc
	14.15-14.30		Digital surface modifications for microfluidics and biosensor applications <b>Alquin Stevens</b> , InnoPhysics BV	Protection and functionalization of particles through scalable atomic layer deposition <b>Bart van Limpt</b> , Delft IMP BV	Curved micro-engineered membranes for alveolar on-chip models <b>Danielle Baptista</b> , MERL Institute	ECS Common SRIA, chapters on Health, Smart Systems Integration and MNBS, <b>Renzo dal Molin</b> , Cairdac, Italy
	14.30-14.45		A versatile X-Y architecture using stretchable microfluidic for quantitative multi-step assays <b>Nicolas Verplanck</b> , CEA-LETI, France	X-ray methods for the characterization of layered structures <b>Joachim F. Voitok</b> , PANalytical	Fabrication of an organ-on-chip membrane scaffold with integrated conducting polymer sensors. <b>Pieter Kapel</b> , Technical University of Delft	InSSight Workshop, Summary of the Results, <b>Mark de Colvenaer</b> , DSP Valley, Belgium
	14.45-15.00		Modular Platform using standardized microfluidic building blocks for effective microfluidic prototyping <b>William César</b> , Fluigent, France	Recent advances in large area Pulsed Laser Deposition; epitaxial growth of complex oxides on silicon <b>Rik Groenen</b> , Twente Solid State	A human microvessel-on-a-chip platform to assess circulating factors associated with microvascular destabilization <b>Thomas Hankemeier</b> , Leiden University	Ongoing EC initiatives and WP18-20, MNBS Funding opportunities, Speaker(s) tbc
						Future strategic collaborations for MNBS:
Break	15.00-15.30	<b>Break/exhibition/poster session</b>				
<b>Afternoon Keynote Session and Closure of the Day</b>						
Chair						
Keynote	15.30-16.00	<b>Ashok Vaseashta</b> , New Jersey City University, USA				
Keynote	16.00-16.30	<b>Lorna Ewart</b> , AstraZeneca, UK				
Closing	16.30-16.45	<b>Ronny van 't Oever</b> , Micronit Microtechnologies and Chairman of the Board of MinacNed				

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