



12th International Conference on the Scientific and Clinical Applications of Magnetic Carriers - Copenhagen, Denmark

**Tuesday, May 22, 2018**

18:00	<b>Registration desk opens</b> in the Maersk Tower (Mærsk Tårnet), Blegdamsvej 3B
18:30	<b>Informal reception and welcome cocktail (Apero)</b> in the Maersk Tower, with the Jacob Venndt's Fabulous Swing Trio - <b>generously sponsored by chemicell</b>
22:00	<b>End of reception</b>

**Wednesday, May 23, 2018**

08:00	<b>Registration desk opens</b> - at the Niels Jerne Auditorium, Mærsk Tårnet (Maersk Tower), Blegdamsvej 3B	
	<b>Opening Session</b>	
09:00	Holst Nissen, Mogens	Opening of the conference and welcome address by the Vice Dean of Research, University of Copenhagen
		Copenhagen, Denmark
09:05	Hafeli, Urs	Short review of the last 2 years of magnetic carriers research
		Copenhagen, Denmark
		Talk 0
	<b>Session 1</b>	<b>Hyperthermia I</b>
		<i>Chair: Silvio Dutz</i>
09:35	Chiu-Lam, Andrea	Spatially Controlled and Image Guided Nanoscale Thermal Therapy
		Gainesville, FL, USA
		Talk 1
09:50	Kostevsek, Nina	Magneto-liposomes as theranostic agents
		Ljubiana, Slovenia
		Talk 2
10:05	<b>Coffee break</b>	
	<b>Session 2</b>	<b>Hyperthermia II</b>
		<i>Chair: Silvio Dutz</i>
10:30	Beola, Lillianne	Differences in cell death mechanism after magnetic hyperthermia treatment depending on the nanoparticle location
		Madrid, Spain
		Talk 3
10:45	Mefford, Thompson	Glycoconjugate-Functionalized Magnetic Nanoparticles: A Tool for Selective Killing of Targeted Bacteria Via Magnetically Mediated Energy Delivery
		Clemson, SC, USA
		Talk 4
11:00	Torres, Teobaldo	Intracellular distribution of magnetic nanoparticles and magnetic hyperthermia effects: a Focused Ion Beam study
		Zaragoza, Spain
		Talk 5
11:15	Grazú, Valeria	Nanobiohybrids for the thermoactivation of a therapeutic enzyme by magnetic hyperthermia
		Zaragoza, Spain
		Talk 6
11:30	Pankhurst, Quentin	Optimal formulation properties and physico-chemical characteristics of iron oxide magnetic nanoparticle heating agents for clinical applications
		London, UK
		Talk 7
11:45	Spirou, Spiridon	Recommendations for in-vitro and in-vivo testing of Magnetic Nanoparticle Hyperthermia combined with Radiation Therapy
		Athens, Greece
		Talk 8
12:00	Merida, Fernando	Ultrasonic Potentiation of Magnetic Fluid Hyperthermia/Pifithrin- $\mu$ Combined Therapies in Ovarian Cancer Cells
		Mayaguez, Puerto Rico
		Talk 9
12:15	<b>Lunch</b>	
	<b>Session 3</b>	<b>Magnetic Drug Delivery / Magnetic Targeting I</b>
		<i>Chair: Christoph Alexiou</i>
13:15	Waldorff, Erik	Low Frequency Pulsed Electromagnetic Field Applications: Bone and Soft Tissue Repair
		Lewisville, TX, USA
		Invited Talk 10
14:00	Yagci Acar, Funda	Discovery of self-luminescent polyethyleneimine coated SPIONs and their theranostic applications
		Istanbul, Turkey
		Talk 11
14:15	Shipunova, Victoria	A novel method of nanoparticle surface biomodification for the development of effective agents for cancer theranostics
		Moscow, Russia
		Talk 12
14:30	Le, Tuan Anh	Development of a Real-Time Two-Dimensional Navigation System of Magnetic Nanoparticles for Targeted Drug Delivery
		Gwangju, Korea
		Talk 13
14:45	<b>Coffee break</b>	
	<b>Session 4</b>	<b>Magnetic Drug Delivery / Magnetic Targeting II</b>
		<i>Chair: Quentin Pankhurst</i>
15:15	Alexiou, Christoph	Upscaling of Iron Oxide Nanoparticles for Biomedical Applications; The SEON Concept
		Erlangen, Germany
		Talk 14
15:30	Bianco, Vincent	A parallel, multi-phase, multi-physics numerical simulation code for development of magnetic fluid control strategies
		New York, NY, USA
		Talk 15
15:45	Fellows, Benjamin	Heparin Coated Magnetic Nanoparticles for Treatment of In-Stent Restenosis and Prevention of Late Stent Thrombosis
		Clemson, SC, USA
		Talk 16
16:00	Jafari, Sahar	Magnetically-enabled rapid intra-nasal drug delivery to the brain
		North Bethesda, MD, USA
		Talk 17

16:15	Baun, Olga	Mag-Guider: A permanent magnet system to guide and image super-paramagnetic nanoparticles	Mainz, Germany	Talk 18
16:30	Nosrati, Zeynab	Fabrication and Characterization of Magnetic Embolising Microspheres with Potential Application in Magnetic Resonance Navigation Technology	Vancouver, BC, Canada	Talk 19
16:45	Liu, Chih-Hsin	Intravenous Delivery of Tissue Plasminogen Activator by Thermosensitive Magnetoliposomes for Target Thrombolysis	Taoyuan, Taiwan	Talk 20
17:00	<b>Poster session I (Posters 1-115) with Beer and Snacks - generously sponsored by micromod / free evening thereafter</b>			

### Thursday, May 24, 2018

08:30	<b>Registration desk opens</b> - at the Niels Jerne Auditorium, Mærsk Tårnet (Maersk Tower), Blegdamsvej 3B			
09:00	<b>Kim, CheolGi</b>	<b>Integrated Magnetophoretic Platform for Precise Manipulation of Living Cells</b>	<b>Daegu, Korea</b>	<b>Invited Talk 21</b>
	<b>Session 5</b>	<b>Analytical Techniques</b>	<b>Chair: Petr Nikitin</b>	
09:45	Connolly, Colin	High-Throughput Single-Nanoparticle Magnetic Analysis Platform Using Diamond Magnetic Imaging	Somerville, MA, USA	Talk 22
10:00	Baffa, Oswaldo	Development of an Optical Pumped Gradiometric System to Detect Magnetic Relaxation of Magnetic Nanoparticles	Ribeirao Preto, Brazil	Talk 23
10:15	Fock, Jeppe	Measured correlation of nanoparticle magnetic moment and hydrodynamic size	Copenhagen, Denmark	Talk 24
10:30	<b>Coffee break</b>			
11:00	Frandsen, Cathrine	Electron holography studies of individual maghemite nanoflowers	Copenhagen, Denmark	Talk 25
11:15	Nikitin, Maxim	Smart Materials Based on Magnetic Nanoparticles for Biosensing and Drug Delivery	Moscow, Russia	Talk 26
	<b>Session 6</b>	<b>Nanotechnology I</b>	<b>Chair: Frank Wiekhorst</b>	
11:30	Abakumov, Maxim	Protein coated magnetic nanoparticles for cancer treatment and diagnostics	Moscow, Russia	Talk 27
11:45	Fratila, Raluca Maria	Clickable magnetic nanoparticles; a new tool for magnetic hyperthermia	Zaragoza, Spain	Talk 28
12:00	Jedlovsky-Hajdu, Angela	Magnetic gelfiber based scaffold for theranostic applications	Budapest, Hungary	Talk 29
12:15	<b>Lunch</b>			
13:15	<b>Glückstad, Jesper</b>	<b>IDEAS TALK: Light Robotics and Its Potential for Integrating With Magnetic Carriers</b>	<b>Copenhagen, Denmark</b>	<b>Invited Talk 30</b>
	<b>Session 7</b>	<b>Nanotechnology II</b>	<b>Chair: Thompson Mefford</b>	
14:00	Tasci, Tonguc Onur	Magnetic Microlasos For Single Cell Capture, Manipulation And Cargo Transport	Boston, MA, USA	Talk 31
14:15	Löwa, Norbert	3D-printing of novel magnetic composites based on magnetic nanoparticles and photopolymers	Berlin, Germany	Talk 32
14:30	Frenea-Robin, Marie	Electroactive Magnetic Nanoparticles for Electrochemical Signal Amplification under Magnetic Attraction on a Microchip Device	Lyon, France	Talk 33
14:45	Schotter, Joerg	NIL-fabricated multifunctional magnetic nanoparticles as probes for homogeneous label-free biosensing	Vienna, Austria	Talk 34
15:00	Ronti, Michela	Structural motifs in Self-Assembling Dipolar Spheres	Vienna, Austria	Talk 35
15:15	<b>Poster session II (Posters 116-256) with coffee and cake</b>			
17:15	<b>Bus leaves to Carlsberg Brewery</b>			
17:30	<b>Tour of "Visit Carlsberg" followed by gala dinner at the Carlsberg mansion and museum; photograph of all the participants</b>			
21:30	<b>End of the evening</b>			

### Friday, May 25, 2018

08:30	<b>Registration desk opens</b> - at the Niels Jerne Auditorium, Mærsk Tårnet (Maersk Tower), Blegdamsvej 3B			
	<b>Session 8</b>	<b>Nanoparticle Synthesis I</b>	<b>Chair: Etelka Tombacz</b>	
09:00	Kasparis, Georgios	Synthesis and Application of Zinc Ferrite Nanoparticles as Agents for Cancer Thermotherapy	London, UK	Talk 36
09:15	Thanh, Nguyen	High Magnetisation, Monodisperse and Water-dispersible CoFe@Pt Core/shell Nanoparticles	London, UK	Talk 37
09:30	Bender, Philipp	Revealing dipolar-coupled moment correlations in clusters of superparamagnetic nanoparticles	Santander, Spain	Talk 38
09:45	Lak, Aidin	Iron deficiencies and structural defects favor magnetic hyperthermia performance of magnetite nanocubes in viscous media	Genoa, Italy	Talk 39
10:00	<b>Coffee break</b>			
	<b>Session 9</b>	<b>Nanoparticle Synthesis II</b>	<b>Chair: Kathy Saatchi</b>	
10:30	Mefford, Thompson	Quantitative Measurement of Ligand Exchange on Iron Oxides via Radioanalytical Techniques	Clemson, SC, USA	Talk 40
10:45	Secret, Emilie	Synthesis and functionalization of magnetic nanoparticles for remote control of differentiation and oriented growth of neuronal cells	Paris, France	Talk 41
11:00	Mickoleit, Frank	Generation of nano-magnetic hybrid materials by genetic engineering and functionalization of bacterial magnetosomes	Bayreuth, Germany	Talk 42

11:15	Pividori, Maria Isabel	Magnetic Molecularly Imprinted Polymers - Synthesis and Applications	Barcelona, Spain	Talk 43
11:30	Morales, Maria del Puerto	Assembling magnetic iron oxide cores to produce well-controlled hydrophilic multicore structures	Madrid, Spain	Invited Talk 44
12:15	<b>Lunch</b>			
	<b>Session 10</b>	<b>Magnetic Imaging</b>	<i>Chair: Patrick Goodwill</i>	
13:15	Diamond, Solomon	Progress Towards a Magnetic Nanoparticle Imaging System for Immunohistochemistry	Hanover, NH, USA	Talk 45
13:30	Paysen, Hendrik	Towards functional magnetic particle imaging of endothelial cells	Berlin, Germany	Talk 46
13:45	Frellsen, Louise	Dynamical monitoring of magnetic markers using quantum diamond magnetometry	Copenhagen, Denmark	Talk 47
14:00	Millán, Angel	Avoiding RES retention of magnetic nanoparticles with a dense PEG coating. A biodistribution study by MRI, SPECT, gamma-counting and TEM	Zaragoza, Spain	Talk 48
14:15	Corte-León, Héctor	Quantitative magnetic force microscopy for single magnetic bead characterization	Teddington, UK	Talk 49
14:30	<b>Coffee break</b>			
15:00	Goodwill, Patrick	Magnetic Particle Imaging Emerges into Preclinical Research: Hardware, Nanoparticles, and Animal Models	Alameda, CA, USA	Invited Talk 50
15:45	Goodwill, Patrick	Online Demo of the Momentum™ Magnetic Particle Imaging system from Magnetic Insight Inc.	Alameda, CA, USA	Demo
	<b>Session 11</b>	<b>Magnetic Separation</b>	<i>Chair: Ivo Safarik</i>	
16:15	Zborowski, Maciej	Development of MAGpoint: Rapid Isolation, Detection and Targeted Sequencing of Circulating Tumor Cells (CTCs) from Blood Liquid Biopsies at the Point Of Care	Cleveland, OH, USA	Talk 51
16:30	van Silfhout, Alex	Colloidal Stability of Ferrofluids for Magnetic Density Separation	Utrecht, The Netherlands	Talk 52
16:45	Dempsey, Nora	Efficient capture of highly diffusive magnetic nanoparticles using micro-magnet arrays	Grenoble, France	Talk 53
17:00	<b>Touristic walk to the boat / with graduate students as guides</b>			
18:30	<b>Boat tour from "Ved Strand" across from Christiansborg Castle / with drinks and snacks</b>			
20:00	<b>Drop off at Nyhavn / free evening</b>			

### Saturday, May 26, 2018

08:30	<b>Registration desk opens</b> - at the Niels Jerne Auditorium, Mærsk Tårnet (Maersk Tower), Blegdamsvej 3B			
	<b>Session 12</b>	<b>Biological Applications I</b>	<i>Chair: Peter Hore</i>	
09:00	Roig, Anna	Magnetic Nanocapsules for Brain Repair after a Stroke	Barcelona, Spain	Invited Talk 54
09:45	Weidner, Andreas	Protein coated magnetic nanoparticles for medical applications	Ilmenau, Germany	Talk 55
10:00	Gigoux, Véronique	Targeted Magnetic Intra-Lysosomal Hyperthermia produces lysosomal reactive oxygen species and causes Caspase-1 dependent cell death	Toulouse, France	Talk 56
10:15	<b>Coffee break</b>			
	<b>Session 13</b>	<b>Biological Applications II</b>	<i>Chair: Thanh Nguyen</i>	
10:45	Dapprich, Johannes	Superparamagnetic Particle Scaffold for Regenerating Damaged Neural Tissue	Lawrenceville, NJ, USA	Talk 57
11:00	Lisse, Domenik	Magnetogenetic Activation of Small GTPases with MagIcS Nanoparticles Inside Living Cells	Osnabrück, Germany	Talk 58
11:15	Van de Walle, Aurore	Differentiation status of stem cells impacts the biotransformations of internalized magnetic nanoparticles: in situ investigations using the magnetic imprint	Paris, France	Talk 59
11:30	Gonçalves, Ana	Magnetic actuated SPCL scaffolds doped with iron oxide magnetic nanoparticles as mechano-instructive platforms for tendon tissue engineering	Barco, Portugal	Talk 60
11:45	Hannon, Gary	A Systematic Approach to Endotoxin Contamination Assessment of Iron Oxide Nanoparticles for Theranostics applications	Dublin, Ireland	Talk 61
12:00	<b>Lunch</b>			
	<b>Session 14</b>	<b>Biosensors</b>	<i>Chair: Frank Ludwig</i>	
13:00	Hore, Peter	Avian Magnetoreception: A Quantum Compass Needle	Oxford, UK	Invited Talk 62
13:45	Wiekhorst, Frank	Development of a method to analyse the dynamic magnetic behavior of magnetic nanoparticles during cellular uptake with high temporal resolution	Berlin, Germany	Talk 63
14:00	Wang, Jian-Ping	A Handheld Platform Based on Wash-Free Magnetic Bioassays for the Early Diagnosis of Influenza A Virus	Minneapolis, MN, USA	Talk 64
14:15	Zabow, Gary	Magnetic microparticles for new NMR-based force sensing	Boulder, CO, USA	Talk 65
14:30	Leliaert, Jonathan	Thermal noise magnetometry: a zero-field magnetic nanoparticle measurement method	Ghent, Belgium	Talk 66
14:45	Teran, Francisco	Taking advantages of nanomagnetism for detecting biomarkers dispersed in biological fluids	Madrid, Spain	Talk 67
15:00	<b>Closing Comments and Announcement of the NEXT MEETING: Urs Hafeli / Thanh Nguyen</b>			
15:15	<b>Meeting ends</b>			