

7th International Conference on the Scientific and Clinical Applications of Magnetic Carriers - Vancouver, Canada

Tuesday, May 20, 2008

- 15:00 Registration desk opens at **Gage Towers** (until 18:00 - 6 PM)
- 17:00 Possibility to visit the **Anthropology Museum** nearby from 17:00-21:00 (5-9 PM) for a reduced fee of \$5 - **highly recommended !**
- 18:30 Registration desk opens in the **student union building (SUB)** upstairs (until 22:00 - 10 PM) / **Posters can be put up** (pins will be provided)
- 19:00 **Informal reception and welcome cocktail (apero) in the SUB upstairs with Jazz music** - sponsored by *StemCell Technologies*

Wednesday, May 21, 2008

7:30	Registration desk opens / Posters can be put up (pins will be provided)		
Opening Session			
9:00	Opening of the conference		
9:05	Burt, Helen	Welcome by the Associate Dean of Research, Faculty of Pharmaceutical Sciences, UBC	Canada
9:10	Hafeli, Urs	Short review of the last 2 years of magnetic carriers	Canada
9:30	Zimmerman, Peter	Diagnosis of Malaria using Magnetic Separation	U.S.A. Invited talk 1
10:10	Coffee break / posters / exhibitors		
10:50	Session 1: Highlights from Different Areas - Chairs: Axel Rosengart (U.S.A.) and Kathy Saatchi (Canada)		
10:55	Wang, Jian-Ping	Physical design and synthesis of new multifunctional nanoparticles and nanoparticle-crystals for biomedical applications	U.S.A. Talk 1
11:10	Rahn, Helene	Tomographic Examination of Magnetic Nanoparticles used as Drug Carriers	Germany Talk 2
11:25	Nikitin, Maxim	Highly Sensitive Room-Temperature Method of Non-Invasive in vivo Detection of Magnetic Nanoparticles	Russia Talk 3
11:40	Palfreyman, Justin	Digital Biomagnetism: Electrodeposited Multilayer Magnetic Tags	U.K. Talk 4
11:55	Ritter, James	Isolated Swine Heart Ventricle Perfusion Model for Implant Assisted-Magnetic Drug Targeting	U.S.A. Talk 5
12:10	Zabow, Gary	Engineered microparticles for MRI	U.S.A. Talk 6
12:25	Lunch		
13:55	Pankhurst, Quentin	In vivo sensing, moving and heating of magnetic nanoparticles in the human body	U.K. Invited talk 2
14:35	Session 2: Magnetic Drug Delivery / Gene Delivery - Chairs: Quentin Pankhurst (U.K.) and Peter Zimmerman (U.S.A.)		
14:40	Mykhaylyk, Olga	Nucleic acid delivery to magnetically labelled cells	Germany Talk 7
14:55	Rovers, Stefan	Externally triggered on-demand drug delivery from polymer matrices induced by a magnetic field	The Netherlands Talk 8
15:10	Chang, Jin	Application of Tat and Folate Mediated Magnetic Nanoparticles in the Therapy of Epilepsy	China Talk 9
15:25	Kuznetsov, Oleg	Magnetically guided transport of anti-cancer drugs using nanostructured ferrocenyl particles – animal and clinical trials	Russia Talk 10
15:40	Rosengart, Axel	Magnetic Nanospheres for Targeted Thrombolysis: Flow studies and in vivo results	U.S.A. Talk 11
15:55	Shapiro, Benjamin	Dynamic Control of Magnetic Fields to Focus Drug-Coated Nano-Particles to Deep Tissue Tumors	U.S.A. Talk 12
16:10	Coffee break / posters / exhibitors - coffee break sponsored by CDRD		
16:40	Kroll, Torsten	Nanoparticle driven imatinib delivery into target cells	Germany Talk 13
16:55	Leslie-Pelecky, Diandra	Biodistribution, Clearance, and Biocompatibility of a Novel Iron-Based Magnetic Nanoparticle Drug Delivery Formulation	U.S.A. Talk 14
17:10	Mertz, Carol	Exploiting the Electromagnetic Response of Polymer Composite Nanocarriers for Controlled Drug Release	U.S.A. Talk 15
17:25	Darton, Nicholas	The in-flow capture of superparamagnetic nanoparticles in microcapillary film as a potential model for targeting of gene therapeutics	U.K. Talk 16
17:40	Farrow, Neil	Improved magnetic nanoparticle-based gene transfection using oscillating magnet arrays	U.K. Talk 18
17:55	Group photograph on the SUB stairs (towards the Gage Towers)		
18:10	Poster session with beer and pretzels - PLEASE RATE POSTERS - sponsored by Diagnostic Biosensors		
19:40	Free evening - use it to meet old friends, discuss new collaborations, and enjoy UBC and Vancouver on your own!		

Thursday, May 22, 2008

Session 3a: Nanoparticle Synthesis and Analysis - Chairs: Yali Cui (China) and Jian-Ping Wang (U.S.A.)				
8:30	Athanassiou, Evagelos	Production of chemical functionalized carbon coated cobalt nanoparticles as a novel tool for magnetic separation technology	Switzerland	Talk 19
8:45	Dutz, Silvio	Ferrofluids of magnetic multicore nanoparticles for biomedical applications	Germany	Talk 20
9:00	Qin, Jian	Putting Smart Clothes on Nanoparticles	Sweden	Talk 21
9:15	Schaller, Vincent	Monte Carlo Simulation of Multi-Core Magnetic Nanoparticles	Sweden	Talk 22
9:30	Dilorio, Mark	Ultra-sensitive magnetic bioassays and the need for a better magnetic nanoparticle	U.S.A.	Talk 23
9:45	Coffee break / poster session / exhibitors - coffee break sponsored by Integrated Engineering Solutions			
10:25	Holschuh, Karl	Continuous Production of High Capacity Nanoparticles for Affinity Purification of Biomolecules	Germany	Talk 24
10:40	Huber, Dale	Optimization of Magnetic Nanoparticles for Biodetection Where Size Control is Critical	U.S.A.	Talk 25
10:55	Ma, Zhi Ya	Synthesis and characterization of multifunctional silica core-shell nanocomposites with magnetic and fluorescent functionalities	U.S.A.	Talk 26
11:10	Martinez-Boubeta, Carlos	Novel Route to synthesizing Core-Shell Fe-MgO Nanospheres: High magnetization particles for biomedicine	Spain	Talk 27
11:25	Meissner, Daniel	Tridentate ligands offer new ways for reliable functionalization of metallic nanoparticles	Germany	Talk 28
11:40	Nguyen, Thanh	Tunable shapes of FePt magnetic nanoparticles	U.K.	Talk 29
11:55	Odenbach, Stefan	Ferrofluids	Germany	Invited talk 3
12:35	Lunch			
14:05	Hicks, Robin	Molecular Magnets	Canada	Invited talk 4
Session 3b: Nanoparticle Synthesis and Analysis - Chairs: Yousef Haik (U.S.A.) and Dharendra Bahadur (India)				
14:45	Begin-Colin, Sylvie	Study of magnetite phosphatation in view of improving grafting	France	Talk 30
15:00	Riffle, Judy	Dispersion properties of magnetite-polymer complexes in physiological media	U.S.A.	Talk 31
15:15	Salaklang, Jatuporn	Fixed bed micro-reactor for surface derivatization of Superparamagnetic Iron Oxide nanoparticles	Switzerland	Talk 32
15:30	Grass, Robert	Are carbon coated metal nanoparticles a high magnetization alternative to oxide based beads?	Switzerland	Talk 33
15:45	Tanaka, Toshiyuki	Preparation of spherical and monodisperse ferrite nanoparticles with diameters between 50-150 nm for biomedical applications	Japan	Talk 34
16:00	Lalatonne, Yoann	Novel magnetic labels for bioassays	France	Talk 35
16:15	Lim, JitKang	Synthesis and Stabilization of Iron Oxide-Core, Gold-Shell Nanoparticles for Biosensing	U.S.A.	Talk 36
16:30	Gu, Hong-chen	Preparation of mono-dispersed nanobeads by miniemulsion polymerization and application in lateral flow immunoassay	China	Talk 37
16:45	Prozorov, Tanya	Novel Bio-Inspired Route to Complex Ferrite Nanomaterials	U.S.A.	Talk 38
17:00	Poster session with beer and pretzels - PLEASE RATE POSTERS - sponsored by Magnisense			
18:30	End of session / bus to harbour and boat trip including dinner; will be back around 23:00 (11 PM)			

Friday, May 23, 2008

Session 4: Hyperthermia - Chair: Stefan Odenbach (Germany)				
8:30	Goya, Gerardo	Cell Internalization of Magnetite Nanoparticles by Dendritic Cells for Intracellular Magnetic Hyperthermia	Spain	Talk 39
8:45	Pradhan, Pallab	Targeted temperature sensitive magnetic liposomes for thermo-chemotherapy of cancer	India	Talk 17
9:00	Kallumadil, Mathew	Suitability of Commercial Magnetic Colloids for Magnetic Hyperthermia	U.K.	Talk 41
9:15	Lacava, Zulmira	Evaluation of Magnetohyperthermia and Photodynamic therapy in Erlich Ascitic Tumor bearing animals	Brazil	Talk 42
9:30	Innocenti, Claudia	Influence of structural and magnetic properties of cobalt ferrite and magnetite nanoparticles on hyperthermal effectiveness	Italy	Talk 43
9:45	Dennis, Cindi	The Influence of Collective Behavior on the Magnetic and Heating Properties of Iron Oxide Nanoparticles	U.S.A.	Talk 44
10:00	Coffee break / poster session / exhibitors			
10:40	Session 5: Analytical Methods - Chairs: Sylvain Martel (Canada) and Ed Flynn (U.S.A.)			
10:45	Kriz, Dario	Magnetic Permeability Based Diagnostic Test for Determination of Canine C-Reactive Protein Concentration in Whole Blood	Sweden	Talk 45
11:00	Lee, Gil	Non-linear Magnetophoretic Separation Using Micro-Magnet Arrays	U.S.A.	Talk 46
11:15	Mistlberger, Günter	Magnetic optical sensor particles: A versatile tool for life science	Austria	Talk 47
11:30	Ludwig, Frank	Characterization of nanoparticles by magnetorelaxometry, ac susceptibility, TEM and photon correlation spectroscopy – a comparative study	Germany	Talk 48
11:45	St. Pierre, Tim	Apparent dependence of the interfacial energy of suspended ferrofluid droplets on magnetic field strength	Germany	Talk 49
12:00	Martel, Sylvain	Automatic transport of magnetic particles in the blood vessels using a clinical MRI system	Canada	Invited talk 5
12:40	Lunch			
13:55	POSTER PRIZE - Cordula Gruettner			
14:00	Session 6: Imaging - Chair: Tim St. Pierre (Australia)			
14:05	Insin, Numpon	Silica Microspheres and Silica Nanoparticles Containing Magnetic Nanoparticles and Semiconductor Quantum Dots	U.S.A.	Talk 50
14:20	Horák, Daniel	The Effect of Magnetic Nanoparticle Coating on the Efficiency of Stem Cell Labeling	Czech Republic	Talk 51
14:35	Wiekhorst, Frank	A stand-alone multi-channel magnetorelaxometry device for quantitative and spatial resolved MNP detection	Germany	Talk 52
14:50	Markov, Denis	Magnetic Particle Imaging: quantitative assessment of tracer performance	The Netherlands	Talk 53
15:05	Zenke, Martin	Magnetic Nanoparticles for Tracking of Stem Cells and Dendritic Cells	Germany	Talk 54
15:20	Roca, Alejandro G.	Understanding the relaxometric properties of high quality MR contrast agents based on magnetite nanoparticles	Spain	Talk 55
15:35	Surguladze, Besiki	Ultrasound Imaging of Sentinel Lymph Nodes in The Patients With Breast Cancer by Using The Preparation "Unimag"	Georgia	Talk 56
15:50	Coffee break / poster session / exhibitors			
16:30	Session 7: Magnetic Separation - Chairs: Maciej Zborowski and Jeff Chalmers (U.S.A.)			
16:35	Earhart, Chris	Microfabricated Sifter for High-throughput and High-gradient Magnetic Separation	U.S.A.	Talk 57
16:50	Farauto, Jordi	Experimental and theoretical study of a novel and fast magnetophoretic separation technique using low magnetic gradients	Spain	Talk 58
17:05	Wilson, Robert	Cell Separations Using Magnetic Chains and Grids	U.S.A.	Talk 59
17:20	Prina-Mello, Adriele	High content screening of nanomaterial toxicological response to proliferating MC3T3-E1 osteoblast cells: a time course study	Ireland	Talk 60
17:35	Abe, Masanori	High-throughput bioscreening utilizing high-performance affinity magnetic carriers exhibiting minimal non-specific protein binding	Japan	Talk 61
17:50	Sinha, Ashok	Characterizing magnetic separation systems for μ -TAS	U.S.A.	Talk 62
18:05	Pamme, Nicole	Magnetic microparticles as manoeuvrable solid supports for multi-step (bio)reactions in continuous flow.	U.K.	Talk 63
18:20	Carpino, Francesca	Characterization of magnetic nanoparticles using quadrupole magnetic field-flow fractionation	U.S.A.	Talk 64
18:35	End of session / Vancouver city tour on yellow school buses			

Saturday, May 24, 2008

Session : Biological Applications - Chairs: Hans Bäumlér (Germany) and Diandra Leslie-Pelecky (U.S.A.)				
8:30	Crecea, Vasilica	Measuring Biomechanical Properties of Tissue Phantoms with Magnetomotive Optical Coherence Elastography	U.S.A.	Talk 65
8:45	Hajdú, Angela	Predictive stability test for salt tolerance of water based magnetic fluids	Hungary	Talk 66
9:00	Tresilwised, Nittaya	Oncolytic adenovirus magnetic complexes: characteristics and biological efficacy in vitro	Thailand	Talk 67
9:15	Erb, Randall	Kinetics of Nonmagnetic Particle Chain Growth in Biocompatible Ferrofluid	U.S.A.	Talk 68
9:30	Kose, Ayse	Rapid and effective cellular manipulation and separation	U.S.A.	Talk 69
9:45	Cui, Yali	Applications of GoldMag Particles in Molecular Biology	China	Talk 71
10:00	Coffee break / exhibitors			
10:45	Ménager, Christine	Vesicles encapsulating quantum dots and magnetic nanoparticles for multimodal imaging	France	Talk 72
11:00	Saatchi, Kathy	Regulation of Cardiac Metabolism with Magnetic Particles	Canada	Talk 73
11:15	Safarik, Ivo	Hydrogen Peroxide Removal with Magnetically Responsive <i>Saccharomyces cerevisiae</i> Cells	Czech Republic	Talk 74
11:30	Xie, Xiaomao	Application of Magnetic Nano Particles to Full-automated Chemiluminescent Enzyme Immunoassay (CLEIA)	Japan	Talk 75
11:45	Aref, Amirreza	Monitor the kinetics of stem cells differentiation on nanosurfaces using optical waveguides	U.K.	Talk 76
12:00	Bäumlér, Hans	Red blood cells as carriers for magnetically targeted delivery of drugs	Germany	Invited talk 6
12:40	Lunch - Salmon Barbecue - sponsored by Integrated Magnetics			
13:55	Session : Biosensors - Chair: Sara Majetich (U.S.A.)			
14:00	Ghionea, Simon	Lab On A Chip Detection of Biomolecules Using Magnetic Bead Labels	U.S.A.	Talk 77
14:15	Schotter, Joerg	Development of a magnetic lab-on-a-chip for point-of-care diagnosis	Austria	Talk 78
14:30	Stakenborg, Tim	Magnetic beads on biosensor platforms for protein, DNA and cell detection	Belgium	Talk 79
14:45	Aurich, Konstanze	Affinity Analysis for Biomolecular Interactions Based on Magneto-Optical Relaxation Measurements	Germany	Talk 80
15:00	Eberbeck, Dietmar	Measurement of the specific binding of functionalised MNP in whole blood	Germany	Talk 81
15:15	Tondra, Mark	Lateral Flow Immunoassay Using Magnetoresistive Sensors	U.S.A.	Talk 82
15:30	Lenglet, Luc	Multiparametric Magnetic Immunoassay	France	Talk 83
15:45	Closing Comments and Announcement of the NEXT MEETING: Urs Hafeli / Maciej Zborowski / Wolfgang Schuett			
16:00	End of the scientific part of the meeting			

Final program as of May 11, 2008