

Monday, June 22, 2015

18:00 Welcome Reception Sponsored By Spherotech, New Sheridan Bar, 231 W Colorado Ave, Telluride, CO

20:00

Tuesday, June 23, 2015

Technical Sessions and Breakfast to be held in main meeting room, Sheridan Opera House 110 N Oak St, Telluride, CO 81435

7:00 Breakfast at the Sherdian Opera House

Session 0: Opening Remarks (Jennifer Andrew, Jeff Anker and Thompson Mefford)

8:00 Thompson Mefford, Jennifer Andrew, and Jeff Anker Introduction to Meeting

Session 1: Imaging: MRI and related technologies (Chair: Tim St. Pierre)

8:15 **Shawn Chen** USA **Surface functionalization of magnetic nanoparticles**

8:55 Mark Bolding USA Iron oxide nanowhiskers as an intravenous contrast agent

9:15 Stephen Russek USA Nanolron Phantom to Validate In-Vivo Iron Mapping

9:35 Karl Stupic USA Nanofabricated Synthetic Antiferromagnets for Single Cell Tracking with MRI

9:55 Jeff Anker USA Multifunctional particles for imaging through tissue with X-ray excited optical luminescence, fluorescence, and magnetic resonance imaging

10:15 Coffee Break

10:35 Richey Davis USA Toward Design of Magnetic Nanoparticle Clusters Stabilized by Biocompatible Diblock Copolymers for T2-Weighted MRI Contrast

10:55 Yuping Bao USA Shape-Controlled Iron Oxide Nanoparticles for Magnetic Resonance Imaging

11:15 Gary Zabow USA Microfabricated magnetic microparticles for enhanced in vivo MRI cell tracking

11:35 Helene Rahn Australia Long-term phantom for MRI and X-Ray imaging of body tissues enriched with magnetic nanocomposites

12:05 Panel Discussion with Speakers from Session 1

12:25 Lunch at the Opera House

Session 2: Imaging: MPI and other new technologies (Chair: Anna Samia)

14:00 **Kannan Krishnan** USA **Clinical translation of Magnetic Particle Imaging: The tracer perspective**

14:40 Dali Soukup UK AC Susceptometry as a Non-invasive Tool for Monitoring Magnetic Nanoparticles in Live Cells

15:00 John Moreland USA Compact AC susceptometer for rapid monitoring of magnetic particle solutions

15:20 Break

15:40 **Lily Yang** USA **Targeted and Image-guided Cancer Therapy using Theranostic Magnetic Iron Oxide Nanoparticles**

16:20 Jennifer Andrew USA Advances in Nanocomposite Design: Towards Multiferroic Biomaterials

16:40 Renata Candido Brazil The Interaction Between Schistosome Eggs and Magnetic Microspheres

17:00 Panel Discussion with Speakers from Session 2

17:30 Poster Session at the Opera House

19:30 Dinner in town with friends new and old

Wednesday, June 24, 2015

7:00 Breakfast at the Opera House

Session 3: Career Panel (Chair: Jeff Anker)

8:00 Career Panel at the Opera House

Session 4: Particle synthesis and modification (Chair: Joe Tracy)

9:00 **Anna Samia** USA **Hybrid Magnetic Nanocomposites for Antibacterial Applications**

9:40 Urs Häfeli Canada Monosized Magnetic Polymeric Microspheres: Production by Microfluidics Methods and Simulation

10:00 Benjamin Evans USA High-Permeability Silicone Magnetic Microspheres

10:20 Pilar Herrasti Spain Electrosynthesis in one step of magnetitepolydopamine

10:40 Coffee Break

11:00 **Jin Xie** USA **Development of Novel T1 and T2 Contrast Agents for Magnetic Resonance Imaging**

11:40 Sandhya Moise UK Exploring suitability of biogenic zinc and cobalt doped magnetite nanoparticles for cellular biomedical applications

12:00 Thompson Mefford USA Direct quantification of ligand surface coverage and a stable colloid-based platform for additional modification

12:20 Panel Discussion with Speakers from Session 4

12:40 Lunch (with new friends go explore Telluride)

13:30 **Explore The Telluride Surroundings (Sign up sheets)**

Session 5: Magnetically Modulated Energy Delivery (MagMED) (Chair: Thompson Mefford)

17:00 **Julian Carrey** France **Overview on Theories to Describe Magnetic Hyperthermia Experiments**

17:40 Michael McPhail Australia Theoretical modelling of the temperature profiles around magnetic nanoparticles in AC magnetic fields

18:00 Tim St. Pierre Australia Thermophoresis - a mechanism for magnetically triggered drug release from nanocomposites containing magnetic nanoparticles?

18:20 **Zach Hilt** USA **Development of Magnetic Nanoparticles and Nanocomposites for Medical and Environmental Applications**

19:00 Panel Discussion with Speakers from Session 5

19:20 Telluride Picnic - Telluride Elementary, 447 W Columbia Ave

Thursday, June 25, 2015

7:30 Breakfast at the Opera House

Session 6: Drug/Gene Delivery (Chair: Lily Yang)

8:30 **Jon Dobson** USA **Biomedical Applications of Magnetic Nanoparticles: Remote Control of Cells**

9:10 Lisa Bauer USA Triggered Drug Release from Iron Oxide Nanochains: A Novel Drug Delivery Vehicle and Imaging Agent

9:30 Sara Carreira UK Rapid magnetic labelling of stem cells using cationised magnetoferritin

9:50 Lucia Gutiérrez Spain Effect of the transformations of nanoparticles in biological matrices on their magnetic properties

10:10 Coffee Break

10:30 Jim Klostergaard USA Probing the Enhanced Permeability and Retention (EPR) Effect in Solid Tumors to Guide Optimal Use of Nanoscale

10:50 Rasam Soheilian USA Towards accumulation of drug-loaded magnetic nanoparticles in the pores between tumor cells

11:10 Panel Discussion with Speakers from Session 6

Session 7: Poster Session Winner (Chair: Tim St. Pierre, Jeff Anker, Jennier Andrew, and Thompson Mefford)

11:30 Travel Awards

11:40 Poster Session Winner Presentation

12:00 Lunch at the Opera House

Session 8: Particle Manipulation (Chair: Jennifer Andrew)

14:00 **Ben Yellen** USA **Magnetophoretic Transistors for Single Cell and Particle Transport**

14:40 Dietmar Lerche Germany A novel method for the fast characterization of magnetic properties of particles/beads and adhesion forces by superimposed centrifugal/magnetic fields

15:00 Lee Moore USA Continuous magnetic depletion of erythrocytes from whole blood with a quadrupole magnet and annular flow channel

15:20 Tanner Pearson USA Customized nanoparticle self-assembly on perpendicular recording media

15:40 Break

16:00 Joshua Martin USA 3D Magnetic Printing of Discontinuous Fiber Composites using Magnetic Nanoparticles for Biological Applications

16:20 Alek Nacev USA Concentrating Ferromagnetic Particles to a Central Target

16:40 Joe Tracy USA Selective Actuation of Elastomer Composites Containing Chained Magnetic Nanoparticles

17:00 Panel Discussion with Speakers from Session 8

Session 10: Conference Closing (Chairs: Jennifer Andrew, Jeff Anker and Thompson Mefford)

17:20 Closing Remarks

Poster Session: Tuesday, June 23, 2015

18:00 Poster Session	Sheridan Opera House	
Poster Presenter	Country	
1 Paulo Augusto	Spain	Wet-Mode Magnetic Classification: Biomedical Applications
2 Matthew Bell	USA	The Formation and Isolation of Nanostructures through Directed Magnetic Assembly of Nanoparticle Patterns using Disk Drive Recording Media
3 Debora Bonvin	France	Optimization of the core of iron oxide nanoparticles for tumor detection and treatment
4 Daniel Candrea	USA	Magnetic cytosmear for specialized cytological analyses in global health and disease
5 Hongmin Chen	USA	Gd-encapsulated carbonaceous dots as novel T1 contrast agents for magnetic resonance imaging
6 Jessica Faust	USA	Designing Biocomposites with Magnetic Nanoparticles for In Vivo Applications
7 Janusz Hankiewicz	USA	Magnetic Resonance Spectroscopy and Imaging contrast using gadolinium particles for non-invasive and in vivo temperature measurements and Imaging contrast using gadolinium particles for non-invasi
8 William Herrera	Peru	Synthesis and characterization of magnetite nanoparticles functionalized with carboxyl and amino acids for biomedical applications
9 Joshua Hollaway	USA	Measurement of the structure-property relationships of substituted ferrites
10 Sarah Howell	USA	Purification and Quantification of Magnetite Nanoparticles for Biological Applications
11 Dale Huber	USA	Evidence for fast catalytic growth of iron oxide nanoparticles formed from the thermal decomposition of iron oleate
12 Dietmar Lerche	Germany	The comprehensive characterization of functionalized Silica-iron oxide magnetic nanoparticles for gene delivery by in situ visualization of separation behavior in centrifugal or magnetic fields \
13 Lamar Mair	USA	Nanorods with Orthogonally Magnetized Segments: Towards Six Degree of Freedom Manipulation
14 Simon Marinelli	USA	Drug penetration through model mucus via oscillation and pulling of magnetic barium hexaferrite nanoparticles
15 Eva Mazarío	Spain	Huge Specific Absorption Rate and Transverse Relaxivity Effects in Manganese Ferrite Nanoparticles Obtained by Electrochemical Route
16 Michael McPhail	Australia	A numerical model for specific adsorption rates (SAR) of magnetic nanoparticles via Néel relaxation in AC magnetic fields
17 Travis Meyer	USA	Control of Superparamagnetic Iron Oxide Nanoparticle Clustering and MRI Contrast through Variations in Coating with Phospholipid-PEG
18 Knut Muller	Germany	Magnetic Nanoparticles for Stem Cell Homing and Tracking with Magnetic Resonance Imaging and Magnetic Particle Imaging
19 Jamie Murbach	USA	Seeking alternative polymer coatings and functionality for magnetic nanoparticles
20 Kaarjel Narayanasamy	USA	Investigation of Various PEI-coated Magnetic Nanoparticles and their Potential in Nanomagnetic Transfection
21 Christopher Quinto	USA	Multifunctional Superparamagnetic Iron Oxide Nanoparticles for Combined Chemotherapy and Hyperthermia Cancer Treatment
22 Sijie Ran	USA	General computational model for locomotion of magnetically actuated microscopic objects in viscous environments
23 Yash Raval	USA	Multifunctional Glycoconjugate-Functionalized Magnetic Nanoparticles for Enhanced Inactivation of <i>Escheria colia</i> via Magnetic Hyperthermia
24 Catherine Snyder	USA	Characterization of Multiferroic Nanofibers
25 Manu Sushruth	Australia	Nanoparticle detection using nano-confined ferromagnetic resonances
26 T. Tasci	USA	Magnetic Bead Micro Robots
27 Camilo Velez	USA	Analysis of microscale permanent magnets for capturing magnetic particles in biological fluids
28 Erika Vreeland	USA	Improving the sensitivity of magnetic relaxometry with PrecisionMRX nanoparticles