

# 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

10:15 Coffee Break

10:35 Richey Davis USA Toward Design of Magnetic Nanoparticle Clusters Stabilized by Biocompatible Diblock Copolymers for T2-Wei  
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  
16:20 Renata Candido Brazil The Interaction Between Schistosome Eggs and Magnetic Microspheres

16:40 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 Baurer 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 Nanoparticles

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 magnetic force microscopy

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

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