

Tuesday, June 20, 2023

17:00 Welcome Reception at XYZ bar in Aloft Hotel

Wednesday, June 21, 2023

Technical Sessions in Clemson University at Greenville ONE (1 N Main St, Greenville, SC 29601)

7:30 Breakfast at Greenville ONE

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

8:30 Introduction to Meeting: Dean Gramapadhye

Session 1: Delivery and Bioapplications (Chair: Jennifer Andrew)

8:40 **Reimhult** **Austria** **Polymer brush-grafted magnetic nanoparticles and magnetically triggered release from lipid and block copolymer vesicles**

9:30 Bao USA Magnetic Screening Nanoplatfrom with Immobilized Transmembrane Receptors for Drug Discovery

9:55 Rosch Germany Amplification- and enzyme-free detection of viral nucleic acids and single-nucleotide mismatches using magnetic signal amplification circuit

10:20 Coffee Break

10:45 **Wong** **USA** **Superparamagnetic Iron Oxide Nanoparticles (SPIONs) for Early Detection of Disease and for Theranostics Applications**

11:35 Rivas Spain Magnetic nanocluster-based sensor for rapid diagnosis of pneumococcal pneumonia

12:00 Panel Discussion with Speakers from Session 1

12:25 Lunch on site

Session 2: Imaging I (Chair: Sam Oberdick)

14:00 **Foster** **Canada** **Magnetic Particle Imaging: A Novel Modality for In Vivo Cell Tracking**

14:50 Viereck Germany Towards integrated hyperthermia application and monitoring for localized drug-release in magnetic particle imaging

15:15 Good USA Inter-user comparison for quantification of superparamagnetic iron oxides with magnetic particle imaging across two institutions highlights

15:40 Break (Poster presenters please hang your poster)

16:05 **Mattingly** **USA** **Scaling Magnetic Particle Imaging from bench-top to humans for functional brain imaging**

16:55 Baumgarten Austria Experimental Demonstration of Human-Sized Quantitative Imaging of Magnetic Nanoparticles with Nonlinear Magnetorelaxometry

17:20 Velazquez-Albir USA Effect of post-synthesis oxidation on magnetic particle imaging (MPI) performance

17:45 Panel Discusion with Session 2 presenters

18:00 Poster Session

19:30 Dinner in town with friends new and old

Thursday, June 22, 2023

7:30 Breakfast at Greenville ONE

Session 3: Career Panel - (Chair: Mas Crawford)

8:00 Career Panel at Greenville ONE

Session 4: Material Challenges Theory and Synthesis (Chair: Carlos Rinaldi)

9:00 **Serantes** **Spain** **Some materials' science challenges to overcome towards successful application of magnetic nanoparticle hyperthermia**

9:50 Goldfarb USA Effective Demagnetizing Factors for Composites of Interacting Nanoparticles

10:15	Rahman	USA	Silica Coating of Iron Oxide Magnetic Nanoparticles by Reverse Microemulsion Method and their Functionalization with Cationic Polymer P
10:40	Coffee Break		
11:05	Rivera-Llabres	USA	Size tunable fabrication of magnetic alginate microparticles (MAMs) as architectural micropatterning porogens in hydrogels using magnetic
11:30	Tracy	USA	Surface Functionalization of Magnetite Nanoparticles for pH-Controlled Assembly and Modeling of Ligand Removal
11:55	Laha	USA	Shape anisotropic iron oxide nanostructures for cancer theranostics
12:20	Panel Discussion with Session 4 presenters		
12:45	Lunch on site		
Session 5: Particle Manipulation (Chair: Thompson Mefford)			
14:00	Woods	USA	Traceable Thermometry and Thermal Imaging using Magnetic Nanoparticles
14:25	Crawford	USA	Tunability and Ordering in 2D Arrays of Magnetic Nanoparticles Assembled via Extreme
14:50	Andrew	USA	Structure-property relationships in core-shell magnetoelectric nanowires –towards minimally invasive neural stimulation
15:15	Kottenbrock	USA	Magnetic Mapping of Bio-Inspired Clusters of Iron Oxide Nanoparticles
15:40	Todd	USA	Three-Way Magnetic Sorting
16:05	Panel Discussion with Session 5 presenters		
	Enjoy Greenville		
18:00	Dinner at Greenville ONE		
Friday, June 23, 2023			
Session 6: Imaging II (Chair: Paula Foster)			
8:00	Breakfast at Greenville ONE		
9:10	Mason	USA	The hardware challenges of scaling MPI to human size and the importance of MNP development for clinical success
10:00	Yu	USA	Tracking Dendritic Cell Vaccination Using Magnetic Particle Imaging
10:25	Zabow	USA	In vivo MRI tracking down to single cell level with microfabricated magnetic particles
10:50	Coffee Break		
11:15	Sannidhi	USA	Exploration of Methods to Estimate Magnetophoretic Mobility of Individual Magnetic Nanoparticles by Particle Tracking Velocimetry
11:40	Oberdick	USA	Shaped Magnetic Hydrogel Microparticles for Multispectral Magnetic Resonance Contrast and Smart Sensing
12:05	Panel Discussion with Session 6 presenters		
12:30	Session 7: Conference Closing (Chairs: Jennifer Andrew and Thompson Mefford)		

Poster Session: Wednesday, June 21, 2023

18:00 Poster Session

Poster #	Presenter	Country	Title
1	Bermudez-Berrio	USA	Amphiphilic surfactants to mediate the transfer of iron oxide nanoparticles from organic to aqueous solutions
2	Caprow	USA	Developing a clinically useful ferrofluid to protect healthy optical tissue during plaque brachytherapy
3	Engelhard	USA	Rotational Magnetic Drug Targeting – Comparison of Magnetomotive Systems
4	Eswaran	USA	Design and properties of magnetic particle imaging (MPI) tracers using nitroDOPA anchored coatings
5	Hauwaert	Belgium	Impact of biocompatible surface functionalisation of MNP on susceptibility, magnetisation and coercivity
6	Hunter	USA	Quantitative measurements of the influence of polymer brush length on magnetic nanoparticle interactions and signal enhancement during
7	Imhoff	USA	An Automated Fe Quantification Assay Using a Liquid Handling Robot

8	Khan	Pakistan	Comparative Investigation of Magnetic, Di-Electric, Optical, and Electrical Properties of Mono BaFe ₂ O ₄ and Hexa BaFe ₁₂ O ₁₉ Nano Ferrit
9	Malaj	USA	Studying the Effect of Magnetic Nanoparticle Aggregation on the Effective Magnetic Anisotropy
10	McDonough	USA	Two-Dimensional Imaging Using a Single-Sided Field Free Line Magnetic Particle Scanner
11	Paul	USA	Designing Magnetic Nanoparticles and Nanocomposites for Use in Biomedical and Environmental Applications
12	Zhao	USA	Direct Synthesis of Monodisperse Water-Dispersible Iron Oxide Nanoparticles for Potential Biomedical Applications