

2019 CANMRDG Meeting

Saturday, November 2, 2019

University of Wisconsin – Madison
Biochemical Science Building, Room 1211
440 Henry Mall
Madison, Wisconsin

All times are Central Daylight Time (CDT)

Local Hosts: Profs. John Markley and Katherine Henzler-Wildman

8:00 - 8:30 **Registration**

8:30 – 8:45 **Welcoming Remarks** by Joseph Ray, John Markley, Katherine Henzler-Wildman

Session I: Biomolecular Dynamics (chaired by Nikolai Skrynnikov)

8:45 - 9:05 **Prof. Vincenzo Venditti**, Iowa State University
“Conformational Disorder in Regulation of Enzymatic Catalysis”

9:05 – 9:25 **Prof. Emma Morrison**, Medical College of Wisconsin
“Histone H3 Tail Conformation Senses Nucleosome Assembly State”

9:25 – 9:45 **Dr. John Egner**, Medical College of Wisconsin
“Structural studies of human Fis1 Reveals a Dynamic Region Important for Drp1 Recruitment and Mitochondrial Fission”

9:45 – 10:05 **Prof. Donghan Lee**, University of Louisville
“Functional Dynamics at Hidden Time”

10:05 - 10:20 **Coffee break**

Session II: Biomedical Applications (chaired by Brian Volkman)

10:20 –10:40 **Prof. Robert Powers**, University of Nebraska – Lincoln
“A Combined NMR and MS Metabolomics Approach to Study Neurodegenerative Diseases”

10:40 –11:00 **Dr. Andrew Namanja**, AbbVie Research & Development
“NMR-based Fragment Screening and Lead Discovery Accelerated by Principal Component Analysis”

11:00 –11:50 **Keynote speaker, Dr. Frank Delaglio**, NIST
“Characterization of Biotherapeutics by Chemometric and Machine Learning Analysis of NMR Spectra”

11:50 – 1:15 **Lunch Break and Poster session**

Session III. Biomolecular NMR: Tools and Insights (chaired by Joe Ray)

- 1:15 – 1:35 **Dr. Woonghee Lee**, University of Wisconsin–Madison
“Automation and Visualization Tools in Protein NMR Spectroscopy”
- 1:35 – 1:55 **Dr. Danyun Zeng**, Marquette University
“Structure, Dynamics, and Nucleic Acid Binding Properties within the N-terminus of the Human Lysine Specific Demethylase Enzyme”.
- 1:55 – 2:10 **Charles DeLisle**, University of Illinois at Chicago
“The C-terminal Segment of pro-Islet Amyloid Polypeptide is Helical in Micelles”
- 2:10 – 2:30 **Prof. Catherine Eichhorn**, University of Nebraska–Lincoln
“Structural Basis for Larp7 Recognition of the Noncoding 7SK RNA: an NMR-guided Approach”
- 2:30 – 2:45 **Hanming Yang**, University of Wisconsin–Madison
“LC-Photo-CIDNP Advances Enable Fast and Inexpensive Hyperpolarization of Biomolecules in Solution”

2:45 – 3:00 **Coffee Break**

Session IV. Solid-state NMR (chaired by Justin Lorieau)

- 3:00 – 3:50 **Keynote speaker, Prof. Ann McDermott**, Columbia University
“Protein Dynamics and Cellular Signaling: Studies by Solid State NMR”
- 3:50 – 4:10 **Prof. Sophia Hayes**, Washington University in St. Louis
“The Importance of NMR Tensors for Evaluating Solid-state Lineshapes: Measurements and DFT Computations”
- 4:10 – 4:25 **Rick Dorn**, Iowa State University and Ames Laboratory
“Identifying the Molecular Edge Termination of Exfoliated Hexagonal Boron Nitride Nanosheets by Solid-State NMR Spectroscopy and Plane-Wave DFT Calculations”
- 4:25 – 4:45 **Prof. Chad Rienstra**, University of Illinois
“New Solid-State NMR Capabilities Coming to NMRFAM”

4:45 – 5.30 **Social Mixer and Poster Session**

Financial Support for Meeting and Speakers

