
2012 Annual CoBRE Research Retreat Abstract Titles

David Case	<i>Bridging the Divide-All Atom Molecular Dynamics Simulations of Biomolecular Crystals</i>
Stephen Sprang	<i>Introduction to CBSD & CoBRE Grant</i>
Klara Briknarova	<i>Structural Studies of the Envelope Glycoprotein from Junin arenavirus</i>
Erica Woodahl	<i>Structural and Functional Analysis of Genetic Polymorphisms in the P-glycoprotein (ABCB1) Drug Transporter</i>
Xi Chu	<i>Computational Study of the Catalytic MEchanism in Adenylyl Cyclase</i>
Valeriy Smirnov	<i>Approaching the Mechanism of Idoleamine Dioxygenase (IDO-1)</i>
Orion Berryman	<i>Catalysis with Non-covalent Interactions</i>
Katya Voronina	<i>A Role for P Granules in Promoting mRNA Silencing in Germline Stem Cells</i>
Tung Chung Mou & Stephen Sprang	<i>Macromolecular X-Ray Diffraction Core Facility</i>
Earle Adams & Edward Rosenberg	<i>Macromolecular NMR Spectroscopy Core Facility</i>
Sandy Ross	<i>BioSpectroscopy Core Facility</i>
Michael Braden & John Gerdes	<i>Molecular Computation Core Facility</i>
Andrea Stierle & Donald Stierle	<i>Symbiotic Bacteria of the Human Gut Micorbiome as a Source of Anti-Inflammatory and Anti-Cancer Agents</i>
Katie Hailer & Brooke Martin	<i>Examining the Function of the Nei Operon- Finding the Function of "Unknown" Proteins</i>
Walter Hill	<i>The Ribosome Jig-Time-Resolved Probing of Ribosomal Functions</i>
Brian Bothner	<i>Did you see that? It moved. I swear that protein just moved.</i>
Bruce Bowler	<i>Encoding Topological Bias in teh Denatured State of a Protein</i>
Lara Taubner	<i>Structural and Physiologic Consequences of Native Post-Translational Modifications of the Prion</i>
Richard Bridges & Sarj Patel	<i>Linking Structure and Molecular Pharmacology of the Glutamate/Cystine Antiporter</i>
Mark Grimes	<i>Wrangling Phosphoproteomic Data to Elucidate Cancer Signaling Pathways</i>
Celestine Thomas	<i>Characterization of Liposome Fusion by a Fusion-Active Arenavirus Envelope Glycoprotein</i>
Brent Ryckman	<i>Structure-function Analysis of a Cytomegalovirus CC Chemokine</i>
Stephen Lodmell	<i>Mechanism of Inhibitors of Rift Valley Fever Virus Nucleocapsid-RNA Interactions</i>
Michael Kavanaugh	<i>Glutamate Transporters- Molecular Mechanisms and Synaptic Roles</i>

Labe A. Black	Conformational Changes and Dynamics Involved in G Proteins During Receptor Independent Cell Signaling
Amanda Brinkworth	Biophysical Characterization of the Virulence Factor BB0577 from <i>Borrelia burgdorferi</i>
Travis Danielson	Loop Formation of Cytochrome c' in the Denatured State: Effect of Residual α -Helical Structure
David Hahn	Mechanism for Catalysis in Mammalian Adenylyl Cyclase
Rebecca Hendrix	Structure-function Analysis of a Cytomegalovirus CC Chemokine
Alexandra Heyneman	Minimal Amino Acid Sequence Essential to Establish a Gross Fold within a Protein
Levi McClelland	Lower Protein Stability Does Not Necessarily Increase Local Dynamics
Casey Schlenker	Using Cysteine Mutant Disulfide Cross-Linking to Investigate the Structure of a Dynamic Complex Between Anastellin and the Third Type III Domain from Fibronectin
Yizhi Sun	Characterization of the Interaction Between RIZ1 and RB Protein
Jose R. Tusell	DFT Study of the Catalytic Core of Mammalian Adenylyl Cyclase
Baisen Zeng	Biochemical Study of the AAA+ ATPase Domain in Human Soluble Adenylate Cyclase
Baisen Zeng	A Structural Study of the Peptide-bound Inhibitory G-Protein Alpha Subunit
Domnita-Valeria Rusnac	Interaction of Anastellin with β -strands ABC, ABCD and ABCDE from the Third Type III Domain of Fibronectin
Jessica Glicken	Characterizing the Anastellin: 3FN3 Complex Using NMR Spectroscopy