

## List of Posters for Biochemistry Fall Conference (Sept. 21, 2007)

(Levis Faculty Center - 2<sup>nd</sup> Floor, Music Room and along exterior walls)

Note: the space allocated for each poster is 4' wide x ~5½' high. Bring *very long* push pins or velcro (not 2-sided mounting tape or thumb tacks), as the boards are thick cloth bulletin boards.

❖❖ Posters must be up by 12 noon to be eligible for panel judging and poster awards. ❖❖

#	Poster Presenter	Laboratory	Poster Title
1	Deborah Berthold (PD-Chem)	Rienstra	Top Ten Tips for Producing <sup>13</sup> C <sup>15</sup> N Protein in Abundance
2	James Hemp (Postdoc)	Gennis	The Heme-Copper Superfamily: Genomics, Evolution, and Ecology
3	Y. Zenmei Ohkubo (Postdoc)	Tajkhorshid	Ca <sup>2+</sup> Mediated Membrane Association of the GLA Domain to Anionic Lipid Bilayers
4	Rudy Fratti	Fratti	Stringent 3Q:1R Composition of the SNARE 0-layer Can be Bypassed for Fusion by Compensatory SNARE Mutation or by Lipid Bilayer Modification
5	Xiaodong Yang (Postdoc)	Chen	Negative Regulation of NF- $\kappa$ B Action by Set9-mediated Lysine Methylation
6	Jennifer Stone (Postdoc)	Kranz	Determining the Optimal Binding Parameters for Cancer-Specific T Cell Receptors
7	Jill Grimme (Postdoc)	M. Spies	Probing the DNA Binding and Annealing Mechanism of Human Rad52 by Ensemble and Single Molecule FRET Measurements
8	Zhijian Huang (PD-Beckman)	Tajkhorshid	Structural Basis for Different Binding Affinities of Bovine Prothrombin and Human FVIIa to DOPS
9	Houjin Zhang (Postdoc)	Nair	Structure and Function of a Carbon Bond Cleaving Enzyme in the Biosynthesis of the Antibiotic Phosphinothricin Tripeptide
10	Bo Huang (Postdoc)	Chen	Brd4 Coactivates NF- $\kappa$ B-mediated Inflammatory Response Via Specific Binding to Acetylated RelA
11	Jiankuai Diao (Postdoc)	Tajkhorshid	Interplay of Mechanical and Binding Properties of Fibronectin-I
12	Rebecca Davis-Harrison (Postdoc)	Morrissey	Investigating the Mechanism of Phosphatidylserine-Phosphatidylethanolamine Synergy in Blood Coagulation
13	Dylan Dodd (Micro)	A. Spies	Cyclic Transition States in the Catalysis of Proton Transfer in Glutamate Racemase: a MD-(QM/MM) and Experimental Study
14	McKay Wood	Gerlt	Mechanistic Studies of OMPDC
15	Nertila Siuti	Kelleher	Functional Analysis of HMGA PTMs During Apoptosis
16	Lindsay Jones	Kranz	Multiple Thermodynamic Mechanisms Contribute to the Binding of pepMHC Ligands by Wild Type and High-affinity TCRs
17	Amy Dunlap	Schuler	Characterization of <i>Arabidopsis</i> PRP2s and Their Possible Role in Alternative Splicing
18	Kathryn Kloepper (Chem)	Rienstra	Structural Studies of Alpha-synuclein Fibrils by Solid-state NMR
19	Doreen Victoria	Crofts	Studies on the Electron Transport Between the b <sub>L</sub> Hemes of Cytochrome bc <sub>1</sub> of <i>Rhodobacter sphaeroides</i>
20	Hsin-Yang Chang	Gennis	Study of Proton Pumping Mechanism in Cytochrome <i>ba3</i> from <i>Thermus thermophilus</i> HB8
21	James Gumbart (Physics)	Tajkhorshid	Mechanics of Force Propagation in TonB-dependent Outer Membrane Transporters
22	Ying Li (Biophys)	Rienstra	Structural Study of E. coli Membrane Protein DsbB by High Resolution Solid-state NMR Spectroscopy
23	Michael Vu	Martinis	Elucidation of a Function for an Idiosyncratic Protein Domain of Leucyl-tRNA Synthetase

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24	Kui Chan	Gerlt	Genomic Enzymological Approach to Understanding the Mechanism of Orotidine 5'-monophosphate Decarboxylase
25	Po-Chao Wen (Biophys)	Tajkhorshid	Asymmetrical Molecular Motion of Nucleotide Binding Domains of ABC Transporters Upon Nucleotide Binding
26	Brian Bae	Nair	Molecular Basis for Selectivity and Specificity of the Two Carbohydrate Binding Modules from <i>T. polysaccharolyticum</i>
27	Aleksandra Kijac (Biophys)	Sligar	Magic-Angle Spinning Solid-State NMR Spectroscopy of Nanodisc-Embedded Human CYP3A4
28	Fatemeh Khalili-Araghi (Physics)	Tajkhorshid & K Schulten	Dynamics of K <sup>+</sup> Conduction through Kv1.2
29	Heather Frericks-Schmidt (Chem)	Rienstra	2D and 3D Magic-Angle Spinning NMR of Cytochrome bo <sub>3</sub> Oxidase
30	SangMoon Lhee (Biophys)	Crofts	Modifications of the Protein Environment Surrounding the [2Fe-2S] Cluster of the bc <sub>1</sub> Complex and Their Effects on the Biophysical Properties of Rieske-type Iron-sulfur Protein and the Reaction Rates of the Enzyme
31	Anjali Mascarenhas	Martinis	Leucyl-tRNA Synthetase Protein Domain Tethers Differentially Impact Chemical Activities
32	Quinn Peterson	Hergenrother	PAC-1 Mediated Activation of Procaspace-3
33	Xi Yang	Kranz	Neutralization of Multiple Bacterial Toxins by a Single-Chain Protein
34	Robert Pugh	M. Spies	The Iron-sulfur Cluster Targets Rad3 to the ssDNA-dsDNA Junction
35	Krithika Ganesan (Biophys)	Gennis	Insights into the Formation and Role of the Histidine-tyrosine Crosslink in Cytochrome c Oxidase
36	Elizabeth Pratico	Silverman	Ty1 Reverse Transcriptase Does Not Read Through the 2',5'-Branch That is Proposed as a Ty1 Retrotransposition Intermediate
37	Rachel Hellmann	Martinis	Biochemical Analysis of a Flexible Peptide within the Leucyl-tRNA Synthetase Editing Domain that Impairs Aminoacylation Fidelity
38	Natalie Bowerman	Kranz	Energetic Impact of Individual Peptide Residues on Binding by High-Affinity TCRs: Implications for Antigen Specificity
39	Yuan-Hung Chien	Leckband	Single Cell Studies of Adhesion Dynamics
40	Christina Parker	Schwartz	Initiation of Coagulation in an all Zymogen System
41	Joy Pang	Martinis	Characterization of Human Cytoplasmic Leucyl-tRNA Synthetase
42	Vincent Pureza (to be presented by lab member)	Morrissey	Blood Coagulation Reactions on Nanoscale Membrane Surfaces
43	Kyle Miner	Lu	Modelling the His-Tyr Crosslink of Cytochrome c Oxidase in Sperm Whale Myoglobin
44	Wei Yuan	Ordal	Studies on the Roles of the Chemotaxis Protein CheD in <i>Bacillus subtilis</i>
45	Yi Wang (Biophys)	Tajkhorshid	Aquaporin-mediated Gas Conduction Across Biological Membranes
46	Sanjeewa Rupasinghe (CDB)	Schuler	Structural Studies of <i>Arabidopsis thaliana</i> P450 Monooxygenases
47	John Rakus	Gerlt	Identification of Novel Catalytic Strategies in the Enolase Superfamily
48	Mehmet Yigit (Biophys)	Lu	Chemically Controlled Assembly and Disassembly of Nanoparticles by Functional Nucleic Acids for Sensing Applications