

Sunday, April 5-Evening

- 3:00 – 6:00 PM **Registration** – Lobby Administration Building
- 3:00 – 6:00 PM **Poster Setup** – Fred Farr Forum
- 6:00 – 7:00 PM **Dinner** – Crocker Dining Hall
- 7:15 PM **Opening Remarks** – Andrew Fisher

Sunday Evening Keynote

7:30 PM-Merrill Hall

Professor Florante Quioco

Baylor College of Medicine

“From BP to ABC”

- 8:20 – 8:40 PM **Coffee Break** – Merrill Hall

Session 1: High Throughput Structure Determination

Session Leader: John Tainer

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| 8:40 PM | Ana Gonzalez
SSRL | T1 | PX beamline facilities at the Stanford Synchrotron Radiation Light Source |
| 9:00 PM | Kathryn Kavanagh
UT Austin/Oxford | T2 | Techniques for Exploring the Human Genome in 3D |
| 9:20 PM | Michal Hammel
LBL | T3 | Rapid and robust proteomics-scale solution structural analyses determined efficiently by x-ray scattering (SAXS) |
- 9:40 – 10:30 PM **Social** – Merrill Hall
- 10:30 – 12:00 PM **Social and Poster Viewing** – Fred Farr Forum

Monday, April 6-Morning

7:00 - 8:00 AM **Breakfast** – Crocker Dining Hall

Session 2: Enzymes, Motors and DNA-Binding Proteins

Session Leader: Rebekka Wachter

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| 8:20 AM | Maia Vinogradova
UCSF | T4 | Regulation of kinesin by a novel calcium sensor |
| 8:40 AM | David Gae
UCD | T5 | Structural insight into the radical intermediate of phytobilin biosynthesis by the ferredoxin dependent bilin reductase enzyme PcyA |
| 9:00 AM | Nicholas Chim
UCI | T6 | Mechanistic insights of heme degradation in <i>Mycobacterium tuberculosis</i> |
| 9:20 AM | S. Paul Bajaj
UCLA | T7 | Structural Biology of Factor VIIa/Tissue Factor Initiated Coagulation |
| 9:40 AM | Nathanael Lintner
Montana State | T8 | The Structure of the CRISPR-associated Protein Csa3 from <i>Sulfolobus solfataricus</i> , a Component of a Recently Discovered Prokaryotic Adaptive Immune System |

10:00 - 10:20 AM **Coffee Break** – Merrill Hall

Session 3: Macromolecular Assemblies

Session Leader: Michael Chapman

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| 10:20 AM | Kianoush
Sadre-Bazzaz
U of Utah | T9 | Structure of a Blm10:20S proteasome complex and implications for proteasome gate opening |
| 10:40 AM | Shiho Tanaka
UCLA | T10 | Insights into Macromolecular Assembly in Bacterial Microcompartments |
| 11:00 AM | Ilya Gertsman
TSRI/UCSD | T11 | Twists and Turns in Viral Capsid Maturation |
| 11:20 AM | Jeffrey Lee
TSRI | T12 | Techniques and tactics used in determining the structure of the trimeric, prefusion <i>Ebolavirus</i> glycoprotein |
| 11:40 AM | Martin Laurberg
UCSC | T13 | Structural Basis for Translation Termination on the 70S Ribosome |

12:00 – 1:00 PM **Lunch** – Crocker Dining Hall

1:00 – 4:00 PM **Free Time**

Monday, April 6-Evening

4:00 – 6:00 PM **Poster Session 1** (odd numbers) **and Refreshments** – Fred Farr Forum

6:00 – 7:00 PM **Dinner** - Crocker Dining Hall

Monday Evening Keynote

7:30 PM-Merrill Hall

Professor Brian Matthews

University of Oregon

“A talk about nothing: are non-polar cavities in proteins really empty?”

8:20 – 8:40 PM **Coffee Break** – Merrill Hall

Session 4: Crystallization Methods

Session Leader: Robert Thorne

8:40 PM	Cory Gerdts Emerald/deCODE	T14	The Microcapillary Protein Crystallization System (MPCS)
9:00 PM	Seth Harris Roche	T15	Acoustic liquid transfer and nanoliter crystallization trials
9:20 PM	Matthew Warkentin Cornell	T16	Slow cooling of protein crystals: A new approach for low- and variable-temperature crystallographic data collection

9:40 – 10: 30 PM **Social** – Merrill Hall

10:30 – 12:00 PM **Social and Poster Viewing** – Fred Farr Forum

Tuesday, April 7-Morning

7:00 - 8:00 AM **Breakfast** – Crocker Dining Hall

Session 5: Membrane Proteins and Associates

Session Leader: Hartmut Luecke

8:20 AM	Rachna Ujwal UCLA	T17	Crystal structure of the mouse Voltage-Dependent Anion Channel at 2.3 Å resolution
8:40 AM	Joseph Ho UCSF	T18	Crystal Structure of Human Aquaporin 4 at 1.8Å and Conductance Mechanism
9:00 AM	Franz Gruswitz UCSF	T19	Structure and Function of a Eukaryotic Ammonia Channel
9:20 AM	Mauro Mileni TSRI	T20	The Integral Membrane Protein Fatty Acid Amide Hydrolase: Development of a Human/Rat Drug Discovery Chimera
9:40 AM	Patrick Koenig B-Z, Heidelberg	T21	Regulation of the chloroplast import receptor Toc34

10:00 - 10:20 AM **Coffee Break** – Merrill Hall

Session 6: Data Collection, Phasing and Refinement

Session Leader: Dale Tronrud

10:20 AM	James Holton ALS	T22	MLFSOM: simulating the diffraction experiment
10:40 AM	Matthew Benning Bruker	T23	Using Partial Model Information to Improve SAD Phasing.
11:00 AM	Nathaniel Echols LBL	T24	Graphical tools for macromolecular structure determination and refinement in PHENIX
11:20 AM	Donald Berkholtz OSU	T25	Beyond Linus Pauling: Conformation dependence of ideal geometry in proteins
11:40 AM	Michael Schnieders Stanford	T26	Polarizable Atomic Multipole X-Ray Refinement: Application to Peptides and Lysozyme

12:00 – 1:00 PM **Lunch** – Crocker Dining Hall

1:00 – 4:00 PM **Free Time**

Tuesday, April 6-Evening

4:00 – 6:00 PM **Poster Session 2** (even numbers) and **Refreshments** – Fred Farr Forum

6:00 – 7:00 PM **Dinner** - Crocker Dining Hall

Session 7: Pathogen-Associated Proteins

Session Leader: Paula Fitzgerald

**7:20 PM Konstantin Korotkov T27 Chaperone-assisted crystallography of the type 2
U Washington secretion system using nanobodies**

**7:40 PM Nathan Henderson T28 Structure and function of *Helicobacter pylori*
U Oregon chemoreceptor TlpB**

**8:00 PM João Dias T29 Crystal Structures Reveal a Shared
TSRI Immunological Solution for Neutralizing
Ebolaviruses**

**8:20 PM Meytal Landau T30 Molecular mechanisms for protein-encoded
UCLA inheritance**

8:40 – 9:00 PM **Coffee Break** – Merrill Hall

Session 8: More Fun with Crystals and Data

Session Leader: James Holton

**9:00 PM Yingsu Tsai T31 Structure of CsoS1C from Lattice-Translocation
UCLA Disordered Data**

**9:20 PM Tzanko Doukov T32 Phasing of Oil-Isolated Crystals Containing
SSRL Multiple Scatterers**

9:40 – 10:30 PM **Social** – Merrill Hall

10:30 – 12:00 PM **Social and Poster Takedown** – Fred Farr Forum

Wednesday, April 8-Morning

7:00 - 8:00 AM **Breakfast** – Crocker Dining Hall

Session 9: Ligand Discovery and Design

Session Leader: Tom Poulos

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| 8:20 AM | Bart Staker
deCODE | T33 | Ligand screening at the Seattle Structural Genomics Center for Infectious Disease (SSGCID) |
| 8:40 AM | Eric Lansdon
Gilead Biosciences | T34 | Crystallographic Analysis of the Competitive Binding of a Novel Nucleotide Analog GS-9148-Diphosphate to HIV-1 Reverse Transcriptase |
| 9:00 AM | Madhavi Nalam
U Mass
Medical School | T35 | Design of Robust HIV-1 Protease Inhibitors: Testing the “Substrate Envelope” Hypothesis to Avoid Drug Resistance |
| 9:20 AM | Sean Gay
UCSD | T36 | Crystal structures of cytochrome P450 2B4 in complex with the inhibitor 1-PBI: ligand induced structural response through α-helical repositioning |
| 9:40 AM | Silvia L Delker
UCI | T37 | The Significance Chirality Plays in Inhibitor Design: An investigation of inhibitors in relation to the active site of constitutive NOSs |

10:00 - 10:30 AM **Coffee Break/Room Check-out** – Merrill Hall

Session 10: “PIs: The Golden Oldies”

Session Leader: Brian Matthews

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| 10:30 AM | Arthur Olson
TSRI | T38 | Tangible Interfaces for Structural Molecular Biology |
| 10:50 AM | William Scott
UCSC | T39 | A General Method for Phasing Novel Complex RNA Crystal Structures Without Resort to Heavy-Atom Derivatives |
| 11:10 AM | Michael Chapman
OHSU | T40 | The Workings of Arginine Kinase – Crystallographic, NMR & Quantum Mechanical Studies |
| 11:30 AM | Hartmut Luecke
UCI | T41 | Crystallographic structure of xanthorhodopsin, a light-driven ion pump with a dual chromophore |
| 11:50 AM | Seth Rubin
UCSC | T42 | A Protein Phosphatase 1 Docking Site is Required for Retinoblastoma Protein Dephosphorylation |

12:10 **Closing Remarks** – Andrew Fisher

12:20 – 1:00 PM **Lunch** – Crocker Dining Hall

1:00 PM **Departure** “See you in 2011....”