

# WMEN CABO XXVII, May 6-10, 2017

## Saturday Evening, May 6

**17:00-17:15 Introduction and Welcome**  
Ian Wilson and Andrej Sali

**17:15-18:00 Keynote Lecture**  
Peter Walter      UCSF      From protein folding to cognition: a serendipitous path of discovery

**18:00-18:10 Self-Introductions**  
Jeanne Baker      Merck  
Jonathan Moore      Vertex Pharmaceuticals

## 18:10-20:45 Short Presentations (5+1 min.) by TSRI and UCSF Graduate Students, Postdocs and Other Researchers (Chair: Gabe Lander)

Cristina Puchades Garcia	TSRI	Mitochondrial inner membrane AAA proteases
Alexander Krois	TSRI	Versatility through flexibility-p53 and intrinsic disorder
Jennifer Kefauver	TSRI	Architecture of the volume-regulated anion channel
Christopher Cottrell	TSRI	Modeling glycans into EM density
Ke Yang	TSRI	Structural basis of cooperativity in a hematopoietic transcription factor: Coactivator ternary complex
Danielle Grotjahn	TSRI	Three-dimensional snapshots of the dynein-dynactin complex
Sergey Shnitkind	TSRI	Regulation of a transcription factor
Emily Roncase	TSRI	Insights into activation and substrate selectivity of a clostrypain-like protease from <i>B. thetaiotaomicron</i>
Sasha Moola	TSRI	
Break		
Louise Heinrich	UCSF	ORACL 2.0: Casting a Wider Net
Ruth Huttenhain	UCSF	An approach to spatiotemporally resolve protein interaction networks in living cells
Chien-Hsiang Hsu	UCSF	Want early retirement? Check your p21.
Matthew Ravalin	UCSF	Linking caspases & proteostasis networks through TPR domains
Brooke Gardner	UCSF	Molecular motors involved in peroxisome biogenesis
Natalia Sevillano	UCSF	Identification of inhibitory antibodies for active urokinase plasminogen activator (uPA)
Bryan Thurtle-Schmidt	UCSF	The elevator mechanism: a model for transport by SLC4 anion exchangers
Jordan Carelli	UCSF	Anti-cancer cyclic peptides trap distinct conformational states of ribosome-bound elongation factor 1A
Lina Leon	UCSF	Defining Cas3 recruitment in a minimal system
Krisna Van Dyke	UCSF	Characterizing the structural basis of bacterial cell wall recognition
Aditya Anand	UCSF	Structural insights into the activity of a memory-enhancing compound
Ilan Chemmama	UCSF	Towards modeling multiple states of biomolecules satisfying spatial restraints from single-particle EM
Jain-Hua Chen	UCSF	Imaging and characterizing the relationship between cell size and nuclear shape
Allison Roberts	UC Berkeley	Utilizing chemoproteomic profiling to discover anti-cancer covalent ligands and druggable hotspots
Assen Rougev	UCSF	Genetic interactions mapping in mammalian cells using CRISPRi
Nicholas Polizzi	UCSF	A core principle of ligand-binding protein design

**21:00– 22:00 Reception with Buffet**

**Poolside**

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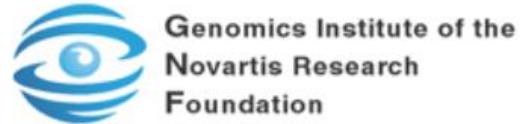
Sunday Morning, May 7			Integrative Structural Biology (Chair: Robert Stroud)
08:40	<b>Andrej Sali</b>	UCSF	Integrative structural biology
09:00	<b>Jeff Lengyel</b>	FEI	In situ structural biology - Advances in cryo-electron tomography
09:20	<b>Gabriel Lander</b>	TSRI	Electron microscopy of molecular motors in motion
09:40	<b>Mark Yeagar</b>	TSRI	MicroED structure of a CTD-SP1 construct of HIV-1 Gag with maturation inhibitor Bevirimat
10:00	<b>Bo Huang</b>	UCSF	Watching the inner life of a cell: CRISPR, GFP and Imagenomics
<b>10:20</b>	<b>Break</b>		
10:40	<b>Kendall Nettles</b>	TSRI	Super-resolution X-ray crystallography for deciphering ligand-induced allostery
11:00	<b>Peter Wright</b>	TSRI	Allosteric regulation of the hypoxic response by an intrinsically disordered protein switch
11:20	<b>Jane Dyson</b>	TSRI	Intrinsically disordered viral proteins and cancer
11:40	<b>Patrick Griffin</b>	TSRI	Chemical biology and differential HDX to probe ligand mediated receptor signaling
12:00	<b>Takanori Otomo</b>	TSRI	Structural insight into the membrane associations required for autophosome biogenesis
Sunday Afternoon			Antibodies, Viruses, Epitopes and Vaccines (Chair: Ian Wilson)
16:00	<b>Dennis Burton</b>	TSRI	Evaluating HIV vaccine immunogens
16:20	<b>Andrew Ward</b>	TSRI	Structure-guided immunogen design
16:40	<b>Andy Deng</b>	BMS	V gene germline encoded binding
17:00	<b>Charly Craik</b>	UCSF	Targeting dynamic protein targets with antibodies for structural and functional insight
17:20	<b>Jack Johnson</b>	TSRI	Archeal virus structure
<b>17:40</b>	<b>Break</b>		
Membrane Proteins (Chair: Andrew Ward)			
18:00	<b>Dan Minor</b>	UCSF	Insights into ion channel mechanism and structure
18:20	<b>Dennis Wolan</b>	TSRI	Inhibitors of bacterial lipoprotein signal peptidase as novel antibiotics
18:40	<b>Robert Stroud</b>	UCSF	Integrating cell health into endolysosomal targeting and delivery, QED!!
19:00	<b>David Millar</b>	TSRI	Conformational dynamics of GPCRs
19:20	<b>Matthew Francis</b>	UC Berkeley	Targeting the N-terminus for site-selective protein bioconjugation
20:00-22:30	<b>Sponsor Dinner, by invitation only – Plaza Mexicana</b>		
Monday Morning, May 8			SPONSORS (Chair: Andrej Sali)
09:00	<b>Steve Doberstein</b>	Nektar	NKTR-181: Separating analgesia from abuse liability of opioids
09:20	<b>Jeremy Murray</b>	Genentech	Breaking down barriers: Structural biology of lipoprotein biosynthesis in bacteria
09:35	<b>Paola Di Lello</b>	Genentech	Discovery and characterization of small molecule fragments that bind and inhibit the USP7
09:50	<b>Jeff Finer/ Jeff Tong</b>	3 <sup>rd</sup> Rock Ventures	Third Rock Ventures: Company building strategy and examples of current projects
10:20	<b>Glen Spraggon</b>	GNF	Proteasome inhibitors for the treatment of Leishmaniasis, Chagas Disease and Sleeping Sickness
10:40	<b>Paul Marinec</b>	Reflexion	Development of a potent D-protein Inhibitor of VEGF-A with reduced immunogenicity and a longer half-life
11:00	<b>James Partridge</b>	GBT	Structures of full-length plasma kallikrein bound to highly specific inhibitors illustrate a new mode of targeted inhibition

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11:20	<b>Break</b>		
11:40	<b>Cornelia Bellamacina</b>	Novartis	Discovery of chemical biology probes inhibiting activation of SGK3 kinase in cancer cells
12:00	<b>James Love</b>	Atum	Optimization of protein production in human cells
12:20	<b>Kathleen Aertgeerts</b>	DART Neuroscience	Rapid optimization of recombinant GPCR protein expression and stability using virus-like particles
<b>Monday Afternoon</b>		<b>Nucleic Acids, Nucleic Acid Binding Proteins &amp; Evolution (Chair: David Millar)</b>	
16:00	<b>Jamie Williamson</b>	TSRI	Quantitative analysis of ribosomal RNA modifications in human cells
16:20	<b>Carolyn Larabell</b>	UCSF	Chromatin structure, from stem cell to tumor cell
16:40	<b>Floyd Romesberg</b>	TSRI	A semi-synthetic organism that stores and retrieves increased genetic information
17:00	<b>Larry Gerace</b>	TSRI	Signaling control at the nuclear periphery
17:20	<b>Libby Getzoff</b>	TSRI	Deciphering functional insights from related protein structures and sequences
17:40	<b>Break</b>		
<b>Chemical Biology (Chair: Kathleen Aertgeerts)</b>			
18:00	<b>Jack Taunton</b>	UCSF	How to be selectively promiscuous
18:20	<b>Qinghai Zhang</b>	TSRI	Novel amphiphiles for membrane protein studies
18:40	<b>Daniel Nomura</b>	UC Berkeley	Mapping disease-relevant druggable hotspots using chemoproteomic platforms
19:00	<b>Jason Gestwicki</b>	UCSF	Control of tau homeostasis by chaperone networks
19:20	<b>Lani Wu</b>	UCSF	The prophesies of ORACLS
<b>Tuesday Morning, May 9</b>		<b>Computation, Health and Disease (Chair: Carolyn Larabell)</b>	
08:30	<b>William DeGrado</b>	UCSF	Structure and function of amyloid- and prion-forming proteins
08:50	<b>Steven Altschuler</b>	UCSF	GSK3 - The center of the universe
09:10	<b>Stefano Forli</b>	TSRI	Design of virtual large focused libraries of HIV-1 Integrase inhibitors
09:30	<b>Nevan Krogan</b>	UCSF	Using systems approaches to studying disease
09:50	<b>Ahmet Yildiz</b>	UC Berkeley	The mechanism of dynein motility
10:10	<b>Joseph Bondy-Denomy</b>	UCSF	Bacterial viruses thwart CRISPR-Cas bacterial immune systems
10:30	<b>Seemay Chou</b>	UCSF	From bacteria to ticks: lessons in antimicrobial defense
10:50	<b>Arthur Olson</b>	TSRI	Envisioning the molecular cell
<b>11:15</b>	<b>Ian Wilson and Andrej Sali</b>	<b>Closing Remarks</b>	

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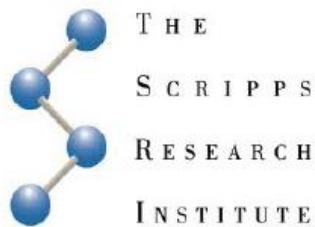
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