

# WMEN CABO XXVI, May 7-11, 2016

## Saturday Evening, May 7

17:15-17:30 **Introduction and Welcome**  
Ian Wilson and Andrej Sali

17:30-18:15 **Keynote Lecture**  
Ian Wilson TSRI A perspective on antibody structure and function from 35 years in the field

18:15-18:25 **Self-Introductions**  
Mira Chaurushiya 5AM Ventures  
Jack Kirsh UC Berkeley  
Bellos Hadjivassiliou Celgene

## 18:30-20:45 Short Presentations (5+1 min.) by TSRI, UCSF, UCB and Stanford Graduate Students, Postdocs etc. (Chair: Erica Ollmann Saphire)

Jessica Bruhn	TSRI	Insights into the structural assemblies governing RNA virus transcription and genomic replication
Alexander Krois	TSRI	Versatility through Flexibility-p53 and intrinsic disorder
Jennifer Kefauver	TSRI	Structural heterogeneity in SWELL1, the volume-regulated anion channel
Charles Daniel Murin	TSRI	One gene, two proteins: cryoEM structures of Ebola Virus sGP in complex with protective antibodies
Erika Olson	TSRI	Structure-guided optimization of a peptide antagonist of EphA4 activation
Danielle Grotjahn	TSRI	Cryo-electron tomography of the dynein-dynactin complex bound to microtubules
Sergey Shnitkind	TSRI	Structural ensemble and phosphorylation-dependent regulation of an intrinsically disordered transcription factor
Shanshan Lang	TSRI	Anti-idiotypic antibody K1-19 for flu vaccination
Sasha Moola	TSRI	Crystal structures of two related broadly neutralizing antibodies against the N332 supersite in HIV Env

### Break

Cristina Arrigoni	UCSF	Structural and functional characterization of a ion channel temperature sensitive domain
Manasi Bhate	UCSF	Structure and function of bilayer stress-sensing transmembrane domains
John-Marc Chandonia	UC Berkeley	Party like it's 1999: structural novelty has regressed two decades
Zachary Hill	UCSF	Proximity tagging of small molecule protein targets using an engineered NEDD8 ligase
Alexander Kintzer	UCSF	Structure, inhibition and regulation of a two-pore channel TPC1
Daniel Saltzberg	UCSF	Integrative structure modeling based on HDX data
Christopher Schulze	Stanford	An in vivo multiplexed small molecule screening platform identifies a pro-metastatic factor in pancreatic cancer
Robyn Kaake	UCSF	Cross-linking mass spectrometry and virus-host protein complexes

21:00– 22:00 Reception with Buffet

Poolside

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### Sunday Morning, May 8 Integrative Structural Biology (Chair: Robert Stroud)

09:00	<b>Andrej Sali</b>	UCSF	Integrative mapping of metabolic pathways
09:20	<b>Ashok Deniz</b>	TSRI	Biophysics of protein disorder at single molecule resolution
09:40	<b>Takanori Otomo</b>	TSRI	Structural insights into autophagosome formation
10:00	<b>Carolyn Larabell</b>	UCSF	Enhancing molecular information with correlated and hybrid methods
<b>10:20</b>	<b>Break</b>		
10:40	<b>Jeff Lengyel</b>	FEI	Recent technological developments in cryoTEM: advancing challenging structural biology research
11:00	<b>Gabriel Lander</b>	TSRI	An ensemble approach for atomic-level structure determination from cryoEM maps
11:20	<b>Andrew Ward</b>	TSRI	Structural studies of viral glycoproteins from HIV to Coronavirus
11:40	<b>Pedro Serrano-Navarro</b>	TSRI	NMR identifies new functional roles for arginine-serine-rich domains
12:00	<b>Daniel Santi</b>	Prolynx/UCSF	An ultra-long acting GLP-1 agonist

### Sunday Afternoon Antibodies, Epitopes and Vaccines (Chair: Jim Paulson)

16:30	<b>Erica Ollmann Saphire</b>	TSRI	Antibodies against Ebola virus: A global collaboration
16:50	<b>Adrian Guthals</b>	Mapp Biopharmaceuticals	MS/MS sequencing of native human antibodies
17:10	<b>James Wells</b>	UCSF	The Antibome: recombinant antibodies en mass
17:30	<b>Vijay Reddy</b>	TSRI	Tomato bushy stunt virus (TBSV): a versatile display platform for antigenic epitopes and vaccine design
<b>17:50</b>	<b>Break</b>		

### Membrane Proteins (Chair: Andrew Ward)

18:10	<b>Robert Stroud</b>	UCSF	Electric potential vs. proton driven transport
18:30	<b>Qinghai Zhang</b>	TSRI	Structural flexibility and ligand binding of multidrug ABC transporters
18:50	<b>William DeGrado</b>	UCSF	High resolution view of drug-binding and proton conduction pathway of M2 proton channel from XFELs crystallography
19:10	<b>Daniel Minor Jr</b>	UCSF	How an ion channel domain can control temperature responses

**20:00-22:30 Sponsor Dinner, by invitation only - Oceana Garden**

### Monday Morning, May 9 SPONSORS (Chair: Daniel Santi)

09:20	<b>Jody Berry</b>	GRIFOLS	Stereotypical antibody responses: A characteristic of all dominant epitopes?
09:40	<b>Jonathan Moore</b>	Vertex	Biophysical Insight in Drug Discovery
10:00	<b>Hing Sham</b>	GBT	GBT440, a potent allosteric modifier of Hb oxygenation
10:20	<b>Daniel Kirschhofer</b>	Genentech, Inc.	Neutrophil serine protease 4 is a pro-inflammatory enzyme with a unique active site structure
<b>10:40</b>	<b>Break</b>		
11:00	<b>Pat Walters</b>	Relay Therapeutics	Integrating public data into the drug discovery workflow

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11:20	<b>Jonathan Zalevsky</b>	Nektar	Design and engineering of NKTR-214; an IL-2 pathway agonist immunotherapy that replenishes the immune system for the treatment of cancer
11:40	<b>Mary Matyskiela</b>	Celgene	Ligand-dependent recruitment of substrates to the cereblon-CRL4 ubiquitin ligase
12:00	<b>Jaume Pons</b>	UCSF/Alexo	New ideas about blocking CD47
12:20	<b>Magdalena Dorywalksa</b>	Rinat Pfizer	Molecular basis of valine-citrulline-PABC linker instability in site-specific ADCs and its mitigation by linker design

<b>Monday Afternoon</b>	<b>Nucleic Acids, Nucleic Acid Binding Proteins &amp; Evolution (Chair: Nevan Krogan)</b>
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16:30	<b>David Millar</b>	TSRI	Trafficking and assembly of HIV-1
16:50	<b>James Williamson</b>	TSRI	Structure and dynamics of 50S ribosome assembly intermediates
17:10	<b>Glen Spraggon</b>	GNF	Unnatural DNA aptamers and the potential to general unique macromolecular targeting modalities
17:30	<b>Floyd Romesberg</b>	TSRI	Engineering a semi-synthetic organism for the stable retention of an expanded genetic alphabet
<b>17:50</b>	<b>Break</b>		

<b>Chemical Biology (Chair: Floyd Romesberg)</b>
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18:10	<b>Dennis Wolan</b>	TSRI	Elucidation of aberrant host and microbial proteins in colitis by large-scale metaproteomics
18:30	<b>Phil Dawson</b>	TSRI	Chemical ligation and bioconjugation, addressing large protein targets.
18:50	<b>Jim Paulson</b>	TSRI	HIV glycosylation
19:10	<b>Matthew Bogyo</b>	Stanford	Selective targeting of the malaria proteasome using structural and functional analysis

<b>Tuesday Morning, May 10</b>	<b>Computation, Health and Disease (Chair: Andrej Sali)</b>
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08:50	<b>Stefano Forli</b>	TSRI	Molecular modeling for drug design
09:10	<b>Kathryn DeFea</b>	UC Riverside	Biased targeting of protease-activated-receptor-2: inhibition of $\beta$ -arrestin-dependent inflammation
09:30	<b>Steven Brenner</b>	UC Berkeley	Interpreting newborn genomes
<b>09:50</b>	<b>Break</b>		
10:10	<b>Nevan Krogan</b>	UCSF	Using systems approaches to study disease
10:30	<b>Natalia Jura</b>	UCSF	Mechanistic insights into receptor tyrosine kinase activation
10:50	<b>Mehrdad Moshrefi</b>	Merck	Biologics discovery at Merck Research Laboratories

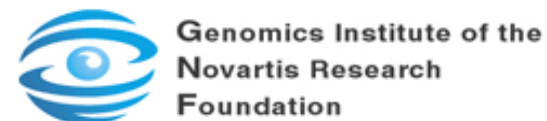
<b>11:30</b>	<b>Ian Wilson and Andrej Sali</b>	<b>Closing Remarks</b>
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