**All sessions in Peninsula I & II**

**(please note this is the usual room on the same floor as the hotel lobby near the entrance)**

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| **Saturday Evening, May 6, 2023** | | | | |
| 16:00 -16:15 | **Introduction and Welcome** | | Ian Wilson and Andrej Šali |
|  | **Short Presentations (4 + 1 min.) by TSRI Graduate Students**  **(Chair: Danielle Grotjahn, TSRI)** | | |
| 16:15:- 18:15 | Nathan Beutler | TSRI | Identifying novel circumsporozoite protein protective epitopes for anti-malaria immunogen design |
|  | Re’em Moskovitz | TSRI | Structural insights into novel epitopes of the leading malaria vaccine candidate circumsporozoite protein |
|  | Nelson Wu | TSRI | Malaria epitope scaffold vaccine design |
|  | Manyuan (Krystal) Ma | TSRI | Pan-coronavirus vaccine design by germline targeting |
|  | Daniel Lima Vilela Bader | TSRI | Structural characterization of PC63 bnAb lineage |
|  | Colleen Maillie | TSRI | Computational engineering of immune receptors and responses |
|  | Collin Joyce | TSRI | Antibody sequencing and immune responses |
|  | André Nicolás León | TSRI | A Shearwater bird flu the coop: characterizing antibodies against avian Influenza hemagglutinins |
|  | Nina Moore | TSRI | Identification of broad-neutralizing antibodies to influenza A |
|  | Hailee Perrett | TSRI | Structural mapping of humoral responses to the Lassa virus glycoprotein |
|  | Daniel Fuentes | TSRI | Defining ER stress induced changes in mitochondrial ultrastructure |
|  | Michaela Medina | TSRI | Mapping of mitochondrial membrane-bound complexes |
|  | Nicholas Tu | TSRI | AlgP: elucidating the protein’s interactions with DNA and polyphosphate granules formed in starved *Pseudomonas aeruginosa* |
|  | Christina Clark | TSRI | Studying feeding and fasting behaviors with metabolic networks through a chemical genetic approach |
|  | Brett Garabedian | TSRI | Glyco-immune checkpoint therapies targeting cancer's sweet spot |
|  | Maya Bulos | TSRI | Identifying new pharmacological mechanisms for targeting the Hippo pathway |
|  | Mildred Kissai | TSRI | A natural product inhibitor of cyclic GMP–AMP synthase |
|  | Eleanor Landwehr | TSRI | Syntheses of class III and IV GB alkaloids |
|  | Stone Woo | TSRI | Synthesis and target annotation of GB18 |
|  | Batuujin Burendei | TSRI | Small molecule inhibitor design for a family of proton channels |
| 18:15-18:30 | **Break** |  |  |
|  | **Short Presentations (4 + 1 min.) by UCSF Graduate Students and Postdocs**  **(Chair: Danielle Grotjahn, TSRI)** | | |

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| 18:30-20:15 | Andrew Latham | UCSF | | Integrative spatiotemporal modeling of biomolecular processes | |
|  | Sandra Zakrzewska | UCSF | | How to survive a toxic environment - lessons from frogs | |
|  | Regan Volk | UCSF | | To eat or not to eat: how proteins influence macrophage phagocytosis | |
|  | Jacqueline Ernest | UCSF | | The rabbit model of active tuberculosis predicts antibiotic penetration at the site of disease in patients | |
|  | Berliza Soriano | UCSF | | Builders and breakers: Enzymes involved in peptidoglycan homeostasis | |
|  | Stephanie Crilly | UCSF | | Design of an α-helical sliding protein switch | |
|  | Trase Aguigam | UCSF | | Structural characterization of small molecule inhibitors of the human RNA decapping complex | |
|  | Tushar Raskar | UCSF | | The structural basis of adaptation of 16S ribosomal RNA and translational efficiency in chimeric ribosomes | |
|  | Quinn Edmondson | UCSF | | Development of a synthetic platform for a minimal macrolide pharmacophore | |
|  | Arthur Tran | UCSF | | Development of antibody-small molecule conjugates for targeted degradation of GPCRs | |
|  | Duncan Muir | UCSF | | High-throughput inhibitor resistance landscapes of SARS-CoV-2 Mac1 via microfluidics | |
|  | Tyler Detomasi | UCSF | | Extracellular proteases that influence colony aggregation in *Vibrio cholerae* | |
|  | Elisabeth Sisko  Nitesh Khandelwal  Meghna Gupta | UCSF  UCSF  UCSF | | Small molecule perturbation of neutrophil chemotactic behavior informs roles in wound healing.  Cryo-EM structure of a *Mycobacterium tuberculosis* efflux protein A  Structural characterization of Neuromyelitis Optica (NMO), an autoimmune disorder | |
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| **20:30 – 22:30** | **Reception with Buffet** | |  | | **Poolside (adult pool)** |
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| **Sunday Morning, May 7, 2023 Keynote Lecture**  **(Introduction &** **Chair: Luke Wiseman, TSRI)** | | | |
| 08:30 | Jeffery Kelly | TSRI | Pharmacological adaptation of proteostasis to ameliorate neurodegenerative diseases |
| 09:30 | **Break** |  |  |
| **Sunday Morning, May 7, 2023 Biophysics and Biology of Cellular Processes**  **(Chair: Jamie Williamson, TSRI)** | | | |
| 09:45 | Carolyn Larabell | UCSF | Imaging membraneless organelles, condensates and misfolded proteins with SXT |
| 10:05 | Keren Lasker | TSRI | A multiscale model of PopZ condensation |
| 10:25 | Danielle Grotjahn | TSRI | Contextualizing mitochondrial structure and function across scales |
| 10:45 | Luke Wiseman | TSRI | Stress response regulation of cellular proteostasis |
| 11:05 | **Break** |  |  |
| 11:25 | Allison Williams | UCSF | Unraveling the mechanism of activation of the bacterial stress response nanomachine |
| 11:45 | Gabriel Lander | TSRI | Using cryoEM to understand molecular glues |
| 12:05 | Christopher Arthur | Altos Labs | CryoEM in the age of Artificial Intelligence and machine learning |
| 12:30-16:00 | **Break** |  |  |
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| **Sunday Afternoon, May 7, 2023 Chemistry and Biology**  **(Chair: Jeffery Kelly, TSRI)** | | | |
| 16:00 | Balyn Zaro | UCSF | A chemical biology approach to study self- and non-self recognition |
| 16:20 | Luke Lairson | TSRI | A chemical biology-based approach to the study of remyelination |
| 16:40 | Jason Sello | UCSF | Exploiting automation in the synthesis, discovery and characterization of neuroactive small molecules |
| 17:00 | Ian Seiple | UCSF | Chemical synthesis to unlock natural product potential |
| **17:20** | **Group photo** |  | Main lobby steps to pools |
| 17:50 | Christina Schroeder | Genentech | Discovery and development of disulfide constrained peptides |
| 18:10 | Philip Dawson | TSRI | Peptide hydrogels - from biophysical analysis to tissue engineering |
| 18:30 | Michael Erb | TSRI | Acetyl-CoA metabolism and response to histone acetyltransferase inhibitors |
| 18:50  19:10 | Matthew Francis  Rob van Wijk | UC Berkeley  UCSF | Building new fusion proteins using enzymatic oxidative coupling reactions  Translational predictions of phase 2 efficacy studies for antituberculosis drugs |
| *20:00 – 22:30 Sponsors Dinner, by invitation only – El Agave* | | | |
| **Monday Morning, May 8, 2022 Integrative Computational and Structural Biology**  **(Chair: Marco Mravic, TSRI)** | | | |
| 08:30 | Andrej Šali | UCSF | Integrative spatiotemporal modeling of the nuclear pore complex assembly |
| 08:50 | Stefano Forli | TSRI | Slippery when wet: thermodynamic profiling of protein hydration sites |
| 09:10  09:30 | Tanja Kortemme  James Williamson | UCSF  TSRI | Discovery and design of allosteric regulation  HIV Gag-RNP assembly in supported lipid bilayers |
| 09:50 | **Break** |  |  |
| **Microbial Pathogens**  **(Chair: Charles Craik, UCSF)** | | | |
| 10:10 | Andrew Ward | TSRI | A low complexity antigen presents a high bar for productive immune responses to malaria |
| 10:30 | James Paulson | TSRI | Evolving specificity of H3N2 influenza for human airway receptors |
| 10:50 | Michael Sauder | Lilly | Ultrarapid structure determination of anti-SARS-CoV-2 antibody therapeutics |
| 11:10 | Ian Wilson | TSRI | Broad targets of antibodies to SARS-CoV-2 and related CoVs |
| 11:30 | Sumit Chanda | TSRI/Scripps Calibr | Developing antivirals for pandemic preparedness |
| 12:00-16:00 | **Break** |  |  |
| **Monday Afternoon, May 8, 2023 Therapeutics, Biochemistry and Biophysics**  **(Chair: Balyn Zaro, UCSF)** | | | |
| 16:00 | Margaux Pinney | UCSF | From atoms to evolution & disease: dissecting enzymes in high-throughput |
| 16:20 | Charles Craik | UCSF | Targeting an intracellular oncoprotein in MHC 1 for cancer therapy |
| 16:40 | Travis Young | Scripps Calibr | Harnessing learnings from first in human trials in generating the next generation of immunotherapies |
| 17:00 | James Fraser | UCSF | Discovering new ligands with X-ray fragment screening and entropy! |
| 17:20 | **Break** |  |  |
| 17:40 | Jason Gestwicki | UCSF | Development of new biophysical assays for measuring protein stability and dynamics |
| 18:00 | John Gross | UCSF | Order from chaos: how protein disorder controls mRNA stability |
| 18:20 | Ashok Deniz | TSRI | Biophysics of macromolecular disorder, single molecules to mesoscales |
| 18:40 | Jane Dyson | TSRI | How do intrinsically disordered proteins work? |
| 19:00 | Peter Wright | TSRI | Allosteric regulation by intrinsically disordered proteins |
| **Tuesday Morning, May 9, 2023. Membrane Proteins**  **(Chair: Allison Williams, UCSF)** | | | |
| 08:30 | Mark Yeager | The Frost Institute | CryoEM structures of eukaryotic membrane proteins |
| 08:50 | Daniel Minor Jr. | UCSF | Electrosome assembly: a first structural view of ion channel biogenesis |
| 09:10 | Marco Mravic | TSRI | Computational design of membrane proteins |
| 09:30 | Jonathan Moore | Rectify | A structural and mechanistic model for BSEP dysfunction in severe cholestatic disease |
| 09:50 | David Millar | TSRI | Conformational dynamics of chemokine receptors |
| 10:10 | Robert Stroud | UCSF | How lipid regulators of inflammation get launched into circulation? A 50% premium! |
| 10:30 | Andrej Sali & Ian Wilson | | Closing Remarks |

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