

Department of Pharmacology Scientific & Training Grant Retreat
October 3, 2024
Scripps Seaside Forum

8:30 am - 9:00 am	Orientation for Current and Past Cellular and Molecular Pharmacology (CMP) Trainees (with Committee for Student Success) <i>Coffee and Bagels will be provided</i>
9:00 am - 9:45 am	Rigor and Reproducibility Training for Current and Past CMP Trainees (with Committee for Student Success)
9:45 am - 10:30 am	Ethics Training for Current and Past CMP Trainees (with Training Grant Faculty and Committee for Student Success)

ENTIRE Department

10:15 - 10:40 am	Check-in/Badge pickup/Hang Posters
10:40 - 11:00 am	WELCOME REMARKS: J. Silvio Gutkind
11:00 - 11:45 am	KEYNOTE LECTURE Diane M. Simeone, MD Director, Moores Cancer Center Chugai Pharmaceutical Chair in Cancer Professor, Department of Surgery UC San Diego "Strategies to Improve Survival in Pancreatic Cancer"
12:00 - 1:00 pm	Lunch
1:00 - 2:20 pm	FACULTY PRESENTERS Theodore Alexandrov, PhD (20 min) (zoom) Assistant Professor, Department of Pharmacology, UCSD "Spatial & Single-Cell Metabolomics: Emerging Technologies for Biology and Pharmacology" Padmini Rangamani, PhD (20 min) Professor, Department of Pharmacology, School of Medicine Department of Mechanical and Aerospace Engineering, Jacobs School of Engineering, UCSD "Systems Biophysics of Cellular Mechanotransduction"

Ryan Hibbs, PhD (20 min)
Professor and Vice Chair of Neurobiology, Professor of Pharmacology

"Native Muscle ACh Receptor Structure in Developing Synapses"

Roland Robins Outstanding Thesis Award Presentation (15 min)
Bryan Yung, Ph.D.

"Exploiting Next-Generation Preclinical Models to Enhance Responses to
Cancer Immunotherapy"

2:25 - 4:00 pm

3:00 - 4:00pm

4:00 pm

Poster Session (*Committee for Posters*) (*TG students are required*)

Happy Hour

Awards

Poster Presentations

Even Posters manned 2:25 –3:15 pm

Odd Posters manned 3:15 – 4:00 pm

Poster #	Title	Category	Presenter	Lab	Position
14	A novel mechanosensitive protein complex in breast cancer invasion	Cancer / Signaling, imaging, and chemical biology	Batty, Skylar	Yang	CMP Grad Student
29	Multi-omic Signatures of Host Response Associated with Presence, Type, and Outcome of Enterococcal Bacteremia	Immunology, inflammation, and infectious diseases / Integrative (multi) omics / Systems and computational biology	Bayne, Charlie	Gonzalez	CMP Grad Student
18	OGT prevents DNA demethylation and suppresses transposable element expression by restraining TET activity genome-wide	Systems and computational biology	Brunelli, Melinda	Myers	CMP Grad Student
3	Coordination of GPCR-mediated Hippo pathway signaling by ARRDC3 and Src family kinases in invasive breast carcinoma	Cancer / Signaling, imaging, and chemical biology	Caplan, Mika	Trejo	CMP Grad Student
37	CYLD and USP34 Differentially Modulate PAR1-mediated p38 MAPK Inflammatory Signaling in Endothelial Cells	Signaling, imaging, and chemical biology	Cheng, Norton	Trejo	Post Doc
12	EphA2 canonical and noncanonical signaling in breast cancer invasion and metastasis	Cancer	Doan, Khoa	Yang	CMP Grad Student
26	Novel combination of metformin and NSAIDs potentiates prevention of oral squamous cell carcinomas from carcinogen-induced premalignant lesions	Cancer	Hoang, Thomas	Gutkind	Grad Student
34	A Novel Receptor Tyrosine Phosphatase in Matrix Stiffness-driven Tumor Invasion and Metastasis	Cancer	Horta, Cali	Yang	CMP Grad Student
24	Uncovering the dynamics of proteolytic activity in human milk	Signaling, imaging, and chemical biology	Hurysz, Brianna	O'Donoghue	CMP Grad Student
30	CTCF mutations associated with neurodevelopmental disorders disrupt bivalent genes	Neuroscience and neurological diseases	Keller, Jeffrey	Meharena	CMP Grad Student
19	Potentiating Solid Tumor Response to Immune Checkpoint Blockade by Targeting Dendritic Cells Through the XCR1-XCL1 Axis	Cancer / Immunology, inflammation, and infectious diseases	Kuo, Ning	Gutkind	CMP Grad Student

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10	Molecular profiling of the blood-brain barrier	Neuroscience and neurological diseases / Cardiovascular and metabolic diseases / Immunology, inflammation, and infectious diseases / Integrative (multi) omics	Larsen, Reid	Daneman	CMP Grad Student
4	Illuminating the dynamic kinome in living cells with KARkey	Signaling, imaging, and chemical biology / Systems and computational biology	Lyons, Anne	Zhang	Grad Student
21	Transitional dendritic cells: function of a novel innate immune cell population during murine coronavirus infection	Immunology, inflammation, and infectious diseases	Maqueda-Alfaro, Raul A	Idoyaga	Post Doc
22	Discovery and mechanism of novel general anesthetics targeting GABAA receptors	Neuroscience and neurological diseases / Biophysical and structural biology	Marinas, Alyssa	Hibbs	CMP Grad Student
39	The PKA inhibitor H-89 acts directly on the β 2-adrenergic receptor with paradoxical effects on G protein signaling	Signaling, imaging, and chemical biology / Biophysical and structural biology	McIntosh, Nicole	Sunahara	CMP Grad Student
15	Rationally Engineered FRET Biosensors for Sensitive CaMKII Activity Imaging	Signaling, imaging, and chemical biology	Mehta, Sohum	Zhang	Project Scientist
36	Lung cancer cells overcome nutrient stress by upregulating integrin $\alpha\beta$ 3/AMPK signaling	Cancer	Nam Arin	Cheresh	CMP Grad Student
40	Optimizing a Protease Evolution Platform for BoNT/E-LC Activity Against TDP- 43	Systems and Computational Biology	Pence, Andrea	Chavez/O'Donoghue	CMP Grad Student
2	Delineating the role of CYLD in PAR1-stimulated p38 signaling in triple-negative breast cancer	Cancer	Pimentel, Julio	Trejo	Post Doc
11	Aberrant Phase Separation of two PKA RI β Neurological Disorder Mutants Leads to Mechanistically Distinct Signaling Deficits	Neuroscience and neurological diseases / Signaling, imaging, and chemical biology / Biophysical and structural biology	Pool, Emily	Zhang	Grad Student
23	Involvement of a novel dendritic cell population during the immune response to vaccines	Immunology, inflammation, and infectious diseases	Rodriguez-Olea, Diana Laura	Idoyaga	Grad Student

Poster #	Title	Category	Presenter	Lab	Position
17	Involvement of a novel dendritic cell population during the immune response to vaccines.	Immunology, inflammation, and infectious diseases	Rodriguez, Diana	Idoyaga	Research Trainee
35	Dissecting the molecular mechanism of the ketogenic diet in AD	Neuroscience and neurological diseases	Rossitto, Leighana	Xu Chen	CMP Grad Student
9	Genetically targetable mTORC1 inhibitor reveals transcriptional control by nuclear mTORC1	Cancer / Signaling, imaging, and chemical biology	Sahan, Ayse	Zhang	Grad Student
25	Leveraging proteomics analysis to uncover novel targets for therapeutic intervention of bacterial infections	Immunology, inflammation, and infectious diseases / Integrative (multi) omics	Sanchez, Concepcion	Gonzalez	Grad Student
31	The proteome atlas of Bacteroides vulgatus identifies camouflage protein against antimicrobial defense pathways	Immunology, inflammation, and infectious diseases / Microbiome	Sauceda, Consuelo	Gonzalez	Grad Student
28	Exploiting CXCR3-chemokines for improved cancer immunotherapy through cytotoxic cell recruitment	Cancer / Immunology, inflammation, and infectious diseases	Shinn, Cheyanne	Handel & Gutkind	CMP Grad Student
13	Epigenetic regulation of pro-oxidant microglia dysfunction in neuroinflammation	Neuroscience and neurological diseases / Immunology, inflammation, and infectious diseases / Integrative (multi) omics	Silva, Alexander	Mendiola	CMP Grad Student
20	Visualizing cell-to-cell heterogeneity of cyclic nucleotide signaling in the tumor microenvironment with live-tissue imaging	Cancer / Immunology, inflammation, and infectious diseases / Signaling, imaging, and chemical biology	Stehle, Daniel	Zhang	Post Doc
32	Repurposing Phosphoinositide 3-kinase Inhibitors to Combat Bacterial Inflammation	Immunology, inflammation, and infectious diseases	Sun, Daniel	Nizet	CMP Grad Student
5	What is the role of brain endothelial lipids in modulating neuroinflammation?	Neuroscience and neurological diseases	Tran, Brooke	Daneman	CMP Grad Student
1	Proteasome Inhibitors as a Novel Drug-class for Treatment of Giardiasis	Immunology, inflammation, and infectious diseases / Pharmaceutical Sciences	Trujillo, Diego	O'Donoghue	CMP Grad Student
6	CRMP2 Activity Imbalance & Resulting Network Dysfunction in Schizophrenia as a Drug Target	Neuroscience and neurological diseases	Vasishth, Maya	Snyder	CMP Grad Student

Poster #	Title	Category	Presenter	Lab	Position
33	Novel role for GPCR–Gαs–PKA signaling axis in modulating interferon I response in macrophages.	Immunology, inflammation, and infectious diseases / Signaling, imaging, and chemical biology	Vo, Pham Thuy Tien	Gutkind	CMP Grad Student
27	Modeling Atypical Teratoid Rhabdoid Tumors (ATRTs) via SMARCB1 knockdown in hiPSC-derived neural crest cells	Cancer	Wang, Clark	Furnari	CMP Grad Student
7	Neurovascular mechanisms of dysfunctional microglia lipid metabolism in neurodegeneration	Neuroscience and neurological diseases	Williams, Nyssa	Mendiola	CMP Grad Student
38	Development and optimization of thiochromenothiazole-based MSUT2 inhibitors as candidates for the treatment of tauopathy	Neuroscience and neurological diseases	Yohannan, Darius	Ballatore	CMP Grad Student
16	New molecular tools to interrogate metabolic signaling in living cells	Signaling, imaging, and chemical biology	Zhang, Qian	Zhang	CMP Grad Student
8	A novel chemigenetic Ras activity reporter to investigate Ras signaling in living cells	Cancer	Zhou, Rosie	Zhang	Grad Student

Posters by Lab

Ballatore: 38	Handel: 28	O'Donoghue: 1, 24, 40
Chavez: 40	Hibbs: 22	Snyder: 6
Cheresh: 36	Idoyaga: 17, 21, 23	Sunahara: 39
Daneman: 5, 10	Meharena: 30	Trejo: 2, 3, 37
Furnari: 27	Mendiola: 7, 13	Xu Chen: 35
Gonzalez: 25, 29, 31	Myers: 18	Yang: 12, 14, 34
Gutkind: 19, 26, 28, 33	Nizet: 32	Zhang: 4, 8, 9, 11, 15, 16, 20

Posters by Category

Biophysical And Structural Biology: 11, 22, 39
Cancer: 2, 3, 8, 9, 12, 14, 19, 20, 26, 27, 28, 34, 36
Cardiovascular And Metabolic Diseases: 10
Immunology, Inflammation, And Infectious Diseases: 1, 10, 13, 17, 19, 20, 21, 23, 25, 28, 29, 31, 32, 33
Integrative (Multi) Omics: 10, 13, 25, 29
Microbiome: 31
Neuroscience and Neurological Diseases: 5, 6, 7, 10, 11, 13, 22, 30, 35
Pharmaceutical Sciences: 1
Signaling, Imaging, And Chemical Biology: 4, 9, 11, 14, 15, 16, 20, 24, 33, 37, 39
Systems and Computational Biology: 4, 18, 29, 40