INDE 217: Physician Scientist Hour PhySH Schedule for 2022-2023

4/24/23

5/8/23

5/15/23

5/22/23

Autumn Quarter 2022 Justin Annes 9/26/22 10/3/22 Choosing rotation labs: Student panel 10/10/22 Charlotte Herber - G3 research talk Crystal Botham 10/17/22 10/24/22 Laura Attardi 10/31/22 Sean Wu Barbara Erny - (RCR) 11/7/22 Olivia Zhou - G3 research talk 11/14/22 11/28/22 Town Hall

	Winter Quarter 2023	
1/9/23	Daniel Liu - G3 research talk	Alway M106
1/23/23	Steven Corsello	Alway M106
1/30/23	Anna Gloyn	Alway M106
2/6/23	Rebecca Hamlin	Alway M106
2/13/23	Jim Ferrell	Alway M112
2/27/23	Jim Laflin ombudsperson - (RCR)	Virtual
3/6/23	Hawa Racine Thiam	Alway M106
	Spring Quarter 2022	
	Speakers / Topic	Alway M106
4/3/23	Matched M4 panel	Alway M106
4/10/23	Tandy Aye	Alway M106
4/17/23	Jonathan Long	Alway M106

Matt Porteus

Rogelio Hernandez-Lopez

Christina Tise

Catherine Blish & Taia Wang

Alway M114

Alway M106

Alway M106

Alway M106

Alway M106

Autumn 2022 PhySH Schedule

Justin Annes

September 26, 2022

Opportunities for the physician scientists in endocrin(onc)ology: From animal disease models to drug development

The Annes Lab specializes in the treatment of hereditary endocrine disorders with particular focus on neuroendocrine-related conditions. The lab's goal is to develop novel therapeutic strategies for diabetes and neuroendocrine tumors. In the laboratory they have developed a variety of animal models, including the first SDHB-deficient hPGL mouse , and new chemical strategies for neuroendocrine cell-targeted drug delivery.

Choosing Rotation Labs - Student Panel

October 3, 2023

Charlotte Herber - G3 Research Talk

October 10, 2022

Chrystal Botham - Grant Writing Academy

October 17, 2022

Fundamentals of the NIH grants process

Dr. Crystal Botham is the inaugural director of the Stanford Biosciences Grant Writing Academy & Office of Pediatric Research Development. The Grant Writing Academy (founded in 2014) aims to center joy and belonging in grant writing and beyond. A core program is an intensive 8-week Proposal Bootcamp, which was honored with an Innovations in Research Education Award from the Association of American Medical Colleges. The Bootcamp supports grant writers (graduate students, postdocs, faculty, etc.) through weekly meetings with trained Grant Coaches to impart grantspersonship skills and conduct peer review.

Laura Attardi

October 24, 2022

Deconstructing cancer development through a p53 lens

The Attardi Lab seeks to better define the mechanisms by which the p53 transcription factor directs tumor suppressive responses in vivo, with the ultimate goal of gaining insight that will facilitate clinical advances in diagnosis, prognostication and therapy. The lab has a particular emphasis on understanding how p53 blocks lung and pancreatic cancer, two especially deadly cancers, by focusing on how p53 affects tumor initiation and evolution as well as crosstalk between cancer cells and cells of the tumor microenvironment. Notably, there is not yet a standard-of-care therapy for cancer based on targeting the p53 pathway, and the lab strives to change this by using a combination of mouse genetic, cell biological, biochemical, and single cell genomic approaches to address understand how p53 acts mechanistically in vivo and by developing new therapeutic approaches in mouse models.

Sean Wu

October 31, 2022

Science at the crossroads of development, stem cells, and machine learning The Wu lab is dedicated to the identification of molecular mechanisms regulating heart development using genetically-targeted mice in vivo and pluripotent stem cell-derived cardiac cells in vitro. In addition, his lab employs bioengineering approaches to generate cardiac tissues for regenerate medicine applications.

Barbara Erny (RCR - Environment Talk)

November 7, 2022

The climate crisis: Health, equity, and how you can make healthcare sustainable As an Adjunct Clinical Associate Professor at Stanford University School of Medicine, Dr. Erny lectures to physicians, students and the community, and mentors students on climate change and health/equity. She is a founding member of the Stanford Task Force for Climate, Health and Equity and is the Director of Education, leading efforts to integrate climate change education into medical school curricula and all levels of physician training.

Olivia Zhou - G3 Research Talk

November 15, 2022

MSTP Town Hall

November 28, 2022

Winter 2023 PhySH Schedule

Daniel Liu - G3 Research Talk January 8, 2023

Steven Corsello

January 23, 2023 Integrating phenotypic and functional assays for cancer therapeutic discovery Dr. Corsello research focuses on the application of genomic methods to cancer therapeutic discovery. He founded the Drug Repurposing Hub Project, an effort to evaluate all available clinical drugs using information-rich cellular assays and apply the results to develop therapeutic hypotheses. In a recent study, Dr. Corsello systematically tested existing drugs against barcoded cell lines to discover new cancer vulnerabilities.

Anna Gloyn

January 30, 2023 *Turning the geneticists nightmare into sweet dreams* Dr. Gloyn research combines genetic discovery and functional genomics with clinical phenotyping and disease modelling in human cell models to elucidate how changes in DNA sequence alter diabetes risk. Her work is highly collaborative, she plays roles in multiple international consortia including the Accelerated Medicines Partnership for Common Metabolic Disease (AMP-CMD) and the Human Islet Research Network (HIRN).

Rebecca Hamlin

February 6, 2023

Beyond the bench & bedside: Lessons from the past decade

Rebecca is an Infectious Diseases Clinical Fellow at Stanford University and a Postdoctoral Research Fellow in the Laboratory of Dr. Catherine Blish. Rebecca completed her BA at Pomona College and MD/PhD at the Icahn School of Medicine at Mount Sinai in New York. In the Blish laboratory, Rebecca is currently studying immune responses associated with Long COVID in a clinical patient cohort.

Jim Ferrell

February 13, 2023 My path through science

James Ferrell is Professor of Chemical and Systems Biology and of Biochemistry. His lab is best known for combining theory and computation with quantitative studies of biological switches and oscillators.

Jim Laflin, Ombudsperson

February 27, 2023

RCR session

Jim received his bachelor's degree from the University of California, Berkeley, and his J.D. degree from the University of San Francisco, School of Law. He is a member of the California State Bar, the International Ombuds Association and the California Caucus of Ombuds. Jim has been the ombudsperson at SOM for 9 years.

Hawa Racine Thiam

March 6, 2023

Neutrophils biophysics through the lens of NETosis

The Thiam lab combines microscopy, microfabrication, quantitative cell Biology and Immunology to investigate the cellular biophysical mechanisms of innate immune cell functions with a particular focus on NETosis; an intriguing process during which neutrophils respond to danger signals (e.g., pathogens) by releasing their chromatin to the extracellular environment where it can trap and neutralize pathogens but also worsen inflammation. Hawa Racine's longterm goal is to combine the knowledge generated by studying the cellular biophysics of immune cell functions, together with engineering principles to manipulate, predict and redesign innate immune cells and improve human health.

Spring 2023 PhySH Schedule

Matched M4 Panel April 3, 2023

Tanya Aye

April 10, 2023 A career in pediatric endocrinology: Why it may be right for you! Dr. Aye is a Professor of Pediatrics and by courtesy, Professor of Psychiatry and Behavioral Sciences. She also founded and directs the Stanford Pediatric and Adolescent Gender Clinic. In addition to her clinical care, her research focuses on how fluctuations and changes in various hormones impact the developing brain, musculoskeletal system and body composition. Finally, as the fellowship program director for pediatric endocrinology, she loves to share her enthusiasm about the subspecialty.

Jonathan Long

April 17, 2023 Answering your questions

The Long laboratory studies signaling pathways in mammalian energy metabolism. The longterm goal of this work is to discover new molecules and pathways that can be translated into therapeutic opportunities for obesity, metabolic disease, and other age-associated chronic diseases.

Matt Porteus

April 24, 2023 *How to give a talk*

Dr. Matt Porteus is an Associate Director of the Stanford MSTP. The Porteus lab focuses on developing genome editing by homologous recombination as curative therapy for children with genetic diseases but also has interests in the clonal dynamics of heterogeneous populations and the use of genome editing to better understand diseases that affect children including infant leukemias and genetic diseases that affect the muscle.

Rogelio Hernandez-Lopez

May 8, 2023

Reprogramming biomolecular circuits for next generation cell therapies

Dr. Hernandez-Lopez is an Assistant Professor in the Departments of Bioengineering and of Genetics at Stanford University, and a Chan-Zuckerberg Biohub Investigator. His work focused on engineering novel T cell therapies for cancer treatment.

Christina Tise

May 15, 2023

Newborn screening 101

Dr. Tise has developed multiple research projects focused on the clinical impact of biochemical genetic conditions in pregnancy and newborn health, including a project focused on unforeseen diagnoses in individuals initially identified through state newborn screening which has resulted in a number of publications. She researches the genetic etiologies of recurrent pregnancy loss and the impact of inherited metabolic conditions on human reproduction.

Catherine Blish and Taia Wang

May 22, 2023 Grant writing: F30

The Blish Lab strives to develop new methods to prevent and control infectious diseases through better understanding of human immunology. The lab has several major areas of ongoing investigation: understanding the diversity and biology of human natural killer (NK) cells; defining the role of NK cells in viral immunity; and immune signatures of human pregnancy.

The Wang lab uses in vivo and in vitro systems to study how antibodies can modulate viral infections or anti-viral vaccine responses through signaling interactions with Fc gamma receptors (FcyRs). The overarching goal of projects in the Wang lab is to elucidate FcyR pathways that can be harnessed towards the development of enhanced vaccines and therapeutics.