



Diversity in a Dish: Pluripotent Stem Cells in Genetic Analysis and Modeling

Bar Harbor, Maine
October 21-24, 2024

Schedule of Activities

Monday, October 21st

3:00 – 8:00 pm	Registration <i>Participants may not enter Highseas prior to 3:00pm</i>	Highseas 1 st Floor
5:00 – 6:00 pm	Social Hour	Highseas 1 st Floor
6:00 – 7:00 pm	Dinner	Highseas 1 st Floor
7:00 – 8:00 pm	Course Welcome & Introductions Chris Baker, Ph.D., The Jackson Laboratory	Highseas 1 st Floor

Tuesday, October 22nd

7:00 am	<i>Breakfast</i>	Highseas, 1 st Floor
8:00 am	Welcome & Announcements Chris Baker, Ph.D., The Jackson Laboratory	Highseas, 3 rd Floor
	<u>MODELING NEUROLOGICAL DISORDERS USING GENETICALLY DIVERSE STEM CELLS</u>	
8:00 – 8:30 am	Capturing the biological heterogeneity of AD using human induced pluripotent stem cell models Tracy Young-Pearse, Ph.D., Mass General Brigham and Harvard Medical School	Highseas, 3 rd Floor
8:30 – 9:00 am	Principles and Challenges in iPSC-based Modeling of Neuropsychiatric Disorders Sevilla Detera-Wadleigh, Ph.D., National Institutes of Health	Highseas, 3 rd Floor
9:00 – 9:30 am	Talk Title TBD Martin Pera, Ph.D., The Jackson Laboratory	Highseas, 3 rd Floor
9:30 – 10:00 am		

	Modeling the impact of genetics and trauma in post-traumatic stress disorder using hiPSC-derived neurons Carina Seah, Ph.D., Icahn School of Medicine at Mount Sinai	Highseas, 3 rd Floor
10:00 – 10:30 am	<i>Break</i>	
	<u>IMPACT OF GENETIC DIVERSITY ON GENE REGULATION</u>	
10:30 – 11:00 am	New stem cell approaches to study brain development and disease in genetically diverse mouse stem cell lines Thomas Vierbuchen, Ph.D., Memorial Sloan Kettering Cancer Center	Highseas, 3 rd Floor
11:00 – 11:30 am	Molecular functions of autism-associated chromatin regulators during human neurogenesis Matthias Stadtfeld, Ph.D., Weill Cornell Graduate School of Medical Sciences	Highseas, 3 rd Floor
11:30 – 12:00 pm	Genetically variable regulation of transposable elements in diverse mouse embryonic stem cells Christopher Baker, Ph.D., The Jackson Laboratory	Highseas, 3 rd Floor
12:00 – 12:30 pm	Exploring Metabolic Disease Through Hepatocyte and Adipocyte Villages Ray Jones, Sc.D., Broad Institute of MIT and Harvard	Highseas, 3 rd Floor
12:30 – 1:30 pm	<i>Lunch</i>	Highseas, 1 st Floor
1:30 – 2:30 pm	Short Talks Featured short talks by trainees selected based on abstract submission	Highseas, 3 rd Floor
2:30 – 3:00 pm	<i>Break</i>	
3:00 – 4:30 pm	Workshop – Title TBD Dan Gatti, Ph.D., The Jackson Laboratory	Highseas, 3 rd Floor
4:30 – 6:00 pm	Poster Session and Social Hour	Highseas, 1 st Floor
6:00 - 7:00 pm	<i>Dinner</i>	Highseas, 1 st Floor

Wednesday, October 23rd

7:00 am	<i>Breakfast</i>	Highseas, 1 st Floor
	<u>GENETIC ANALYSIS IN STEM CELLS</u>	
8:00 – 8:30 am	Precise, high-efficiency editing of stem cells to probe human biology and model disease	Highseas, 3 rd Floor

Bill Skarnes, Ph.D., The Jackson Laboratory

8:30 – 9:00 am	Talk Title TBD Ralda Nehme, Ph.D., Broad Institute of MIT and Harvard	Highseas, 3 rd Floor
9:00 – 9:30 am	Talk Title TBD Steve Munger, Ph.D., The Jackson Laboratory	Highseas, 3 rd Floor
9:30 – 10:00 am	Perturbing human iPSC-derived cardiomyocytes to understand cardiovascular disease risk Michelle Ward, Ph.D., University of Texas Medical Branch	Highseas, 3 rd Floor
10:00 – 10:30 am	<i>Break</i>	
10:30 – 11:30 am	Short Talks Featured short talks by trainees selected based on abstract submission	
11:30 – 12:00 pm	<i>Group Photo</i>	Highseas, 1 st Floor
12:00– 1:30 pm	<i>Lunch</i>	Highseas, 1 st Floor
1:30 – 3:30 pm	Grantsmanship Workshop: The Specific Aims page Taneli Helenius, Ph.D., The Jackson Laboratory	Highseas, 3 rd Floor
3:30 – 4:00 pm	<i>Shuttle to The Jackson Laboratory</i>	Highseas Lobby
4:00 – 5:00 pm	Keynote Speaker Ronald McKay, Ph.D., Johns Hopkins School of Medicine	Highseas, 3 rd Floor
5:00 – 5:30 pm	<i>Shuttle to Highseas</i>	JAX Lobby
5:30 – 6:00 pm	<i>Break</i>	
6:00 – 7:00 pm	<i>Lobster Dinner</i>	Highseas, 1 st Floor
7:00 - 8:30 pm	Evening Discussion – Scientific Challenges	Highseas, 1 st Floor

Thursday, October 24th

7:00 am	<i>Breakfast</i>	Highseas, 1 st Floor
	<u>HIGH THROUGHPUT APPROACHES TO UNDERSTANDING GENETIC VARIATION</u>	
8:00 – 8:30 am	Talk Title TBD Mazhar Adli, Ph.D., Northwestern Feinberg School of Medicine	Highseas, 3 rd Floor

8:30 – 9:00 am	Using genetically diverse mouse cell populations to interrogate cellular dose response phenotypes Laura Reinholdt, Ph.D., The Jackson Laboratory	Highseas, 3 rd Floor
9:00 – 9:30 am	Talk Title TBD Paul Robson, Ph.D., The Jackson Laboratory	Highseas, 3 rd Floor
9:30 – 10:00 am	Repurposing CRISPR to turn genes on and off Luke Gilbert, Ph.D., University of California, San Francisco	Highseas, 3 rd Floor
10:00 – 10:30 am	<i>Break</i>	
10:30 – 11:00 am	Advancing Inclusive Precision Medicine Research by Diversifying Stem Cell Biobanks for Disease Modeling Raeka Aiyar, Ph.D., New York Stem Cell Foundation	Highseas, 3 rd Floor
11:00 – 11:30 am	Talk Title TBD Speaker TBD	
11:30 – 12:00 pm	<i>Break</i>	
12:00 – 1:00 pm	<i>Lunch</i>	Highseas, 1 st Floor
1:00 – 2:30 pm	Workshop - Introduction to CellProfiler Workshop Esteban Miglietta, Ph.D., Broad Institute of MIT and Harvard	Highseas, 3 rd Floor
2:30 pm	Adjourn <i>Dinner on your own</i>	

Friday, October 25th

7:00 – 9:00 am	<i>Grab-n-Go Breakfast & Departure</i> Participants may remain on the 1 st floor of Highseas until noon if needed.
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