



The Jackson
Laboratory

The 33rd Annual Short Course on Experimental Models of Human Cancer

August 4-12, 2024
Bar Harbor, Maine

Schedule of Activities

Sunday, August 4th

Moderator: Brent Berwin, Ph.D., The Jackson Laboratory

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| 3:00 – 5:00 pm | Lodging Check-in for those staying at College of the Atlantic
<i>Participants are not permitted to enter College of the Atlantic prior to 3:00 pm.
105 Eden Street, Bar Harbor, ME</i> |
| 3:00 – 5:00 pm | Course Registration
<i>Bar Harbor Regency -- Stone House
123 Eden Street, Bar Harbor, ME
(The Bar Harbor Regency is a short walk from College of the Atlantic)</i> |
| 5:00 – 5:15pm | Course Welcome and Introductions
Karolina Palucka, M.D., Ph.D., The Jackson Laboratory |
| 5:15 – 6:00 pm | Immune checkpoint blockade therapy for cancer
Jedd Wolchok, M.D., Ph.D., Weill Cornell Medical College |
| 6:00 – 6:45 pm | How studies of metabolism have informed understanding of cancer progression
Matthew Vander Heiden, M.D., Ph.D., Broad Institute |
| 6:45 – 8:00 pm | Welcome Reception Sponsored by the JAX Cancer Center
<i>Bar Harbor Regency -- Stone House</i> |

Monday, August 5th

Moderator: Brent Berwin, Ph.D., The Jackson Laboratory and Jacques Banchereau, Ph.D., Founder, Immunledge LLC

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| 7:40 am | <i>Transportation from College of the Atlantic to The Jackson Laboratory</i> |
| 7:45 am | <i>Transportation from The Bar Harbor Regency to The Jackson Laboratory</i> |
| 8:00 – 9:00 am | Registration and Breakfast
<i>The Jackson Laboratory (600 Main St, Bar Harbor, ME)</i> |
| 9:00 – 9:45 am | Impact of the Tumor Microenvironment and Inflammation on Tumor Dormancy and Awakening
Lucia Borriello, Ph.D., Fox Chase Cancer Center |

9:45 – 10:30 am	Experimental Models in Cancer Neuroscience: A New Hallmark of Cancer Towards Clinical Translation Moran Amit, M.D., Ph.D., MD Anderson Cancer Center
10:30 – 11:00 am	<i>Break</i>
11:00 – 11:45 am	RNA mechanisms in cancer Eric Wang, Ph.D., The Jackson Laboratory
11:45 – 12:30 pm	The role of aging in promoting immune-mediated reactivation from metastatic dormancy Mitchell Fane, Ph.D., Fox Chase Cancer Center
12:30 – 1:30 pm	Lunch with Speakers <i>Roscoe's Café</i>
1:30 – 2:15 pm	Selective Autophagy as a Key Player in Cancer Development Esperanza Arias Perez, Ph.D., Albert Einstein College of Medicine
2:15 – 3:00 pm	Immunotherapy Resistance, mechanisms and strategies Samir Khleif, M.D., Georgetown University
3:00 – 3:15 pm	<i>Break</i>
3:15 – 4:00 pm	Cell context, mutation, microenvironment and ovarian cancer control David Huntsman, M.D., BC Cancer Research Institute
4:00 pm	<i>Transportation from The Jackson Laboratory to College of the Atlantic and The Bar Harbor Regency</i>
4:00 – 5:30 pm	<i>Free time</i>
5:30 – 6:30 pm	<i>Dinner at College of the Atlantic for participants</i>

Tuesday, August 6th

Moderator: Eric Wang, Ph.D., The Jackson Laboratory

7:40am	<i>Transportation from College of the Atlantic to The Jackson Laboratory</i>
7:45 am	<i>Transportation from The Bar Harbor Regency to The Jackson Laboratory</i>
8:00 – 9:00 am	Registration and Breakfast <i>The Jackson Laboratory (600 Main St, Bar Harbor, ME)</i>
9:00 – 9:45 am	Replicative senescence and cancer revisited: Metabolic associated steatohepatitis (MASH) generates senescent hepatocytes that serve as hepatocellular carcinoma (HCC) progenitors Michael Karin, Ph.D., UCSD
9:45 – 10:30 am	The textures of the tumor microenvironment: An integrated imaging perspective J. Javier Bravo Cordero, Ph.D., Icahn School of Medicine at Mount Sinai

10:30 – 11:00am	<i>Break</i>
11:00 – 11:45 am	Normalizing the Tumor Microenvironment to Improve Immunotherapy: Bench to Bedside to Biomarkers Rakesh Jain, Ph.D., Harvard Medical School, Massachusetts General Hospital
11:45 – 12:30 pm	Role of stromal cell matrix in the initiation of pancreas cancer David Cheresh, Ph.D., University of California, San Diego
12:30 – 1:30 pm	Lunch with Speakers <i>Roscoe's Cafe</i>
1:30 – 3:30 pm	Workshop: Basic Biomethods for the Use of Murine Cancer Models Biotrain Team, The Jackson Laboratory
3:30 – 5:00 pm	Poster Session <i>Roscoe's Café</i>
5:00 pm	<i>Transportation from The Jackson Laboratory to College of the Atlantic and The Bar Harbor Regency</i>
5:30 – 6:30 pm	<i>Dinner at College of the Atlantic for participants</i>

Wednesday, August 7th

Moderator: [Djamel Nehar-Belaid, Ph.D., The Jackson Laboratory](#)

7:40 am	<i>Transportation from College of the Atlantic to The Jackson Laboratory</i>
7:45 am	<i>Transportation from The Bar Harbor Regency to The Jackson Laboratory</i>
8:00 – 9:00 am	Registration and Breakfast <i>The Jackson Laboratory (600 Main St, Bar Harbor, ME)</i>
9:00 – 9:45 am	Innate immune receptors in neurodegeneration and cancer: TREM2 and beyond Marco Colonna, Ph.D., Washington University in St. Louis
9:45 – 10:30 am	Challenges and Opportunities at the Crossroads of Cancer and Autoimmunity Virginia Pascual, M.D., Weill Cornell Medical College
10:30 – 11:00 am	<i>Break</i>
11:00 – 11:45 am	Role of the microbiota, immune and peripheral nervous systems in tumor growth and control Dan Littman, M.D., Ph.D., HHMI, NYU School of Medicine
11:45 – 12:30 pm	Imaging the Tumor Microenvironment Ron Germain, M.D., Ph.D., National Institutes of Health
12:30 – 1:30 pm	Lunch with Speakers <i>Roscoe's Café</i>

- 1:30 – 2:15pm **An Introduction Clinical Cancer Immunotherapy**
Mario Sznol, M.D., Yale University, Yale Cancer Center
- 2:15 – 3:00 pm **Modeling Pancreatic Cancer**
David Tuveson, M.D., Ph.D., Johns Hopkins University
- 3:00 – 3:15pm Transportation from The Jackson Laboratory to the Bar Harbor Regency
- 3:30 – 5:00 pm **Panel Discussion**
Moderated by Jacques Banchereau, Ph.D., Founder, Immunoledge LLC and
Djamel Nehar-Belaid, Ph.D., The Jackson Laboratory
The Bar Harbor Regency – Stone House
- 5:30 – 6:30 pm *Dinner at College of the Atlantic for participants*

Thursday, August 8th

Moderator: Brent Berwin, Ph.D., The Jackson Laboratory

- 7:40 am *Participants to walk from College of the Atlantic to The Bar Harbor Regency*
- 8:00 – 9:00 am **Registration and Breakfast**
The Bar Harbor Regency – Stone House
123 Eden St, Bar Harbor, ME
- 9:00 – 9:45 am **Immune checkpoint blockade in preclinical models**
Taha Merghoub, Ph.D., Weill Cornell Medical College
- 9:45 – 10:30 am **Macrophage roles in cancer immune suppression**
Judith Varner, Ph.D., University of California San Diego
- 10:30 – 11:00 am *Break*
- 11:00 – 11:45 am **Pathologically activated myeloid cells in cancer**
Dmitry Gabilovich, M.D., Ph.D., AstraZeneca
- 11:45 – 12:30 pm **Pre-clinical modeling of anti-cancer immune responses**
Marcus Bosenberg, M.D., Ph.D., Yale School of Medicine
- 12:30 – 12:35 pm **Group Photo**
- 12:35 – 2:00 pm **Lunch with Speakers**
- 2:00 – 2:45 pm **Inflammatory Memory and the Opposing Roles of Interferon Signaling in Cancer Immunotherapy Resistance**
Andy Minn, M.D., Ph.D., University of Pennsylvania
- 2:45 – 3:30 pm **Molecular biomarkers of response and resistance to checkpoint blockade in clinical settings**
Romain Banchereau, Ph.D., Genentech
- 3:30 – 4:00 pm *Break*

- 4:00 – 4:45 pm **Advanced Tissue Mapping Technologies Applied to the Human Pancreas Across Lifespan**
Paul Robson, Ph.D., The Jackson Laboratory
- 4:45 – 5:30 pm *Free Time*
- 5:30 – 6:30 pm *Dinner at College of the Atlantic for Participants*

Friday, August 9th

Moderators: [Lucas Chang, Ph.D., The Jackson Laboratory](#) and [Brent Berwin, Ph.D., The Jackson Laboratory](#)

- 7:40 am *Transportation from College of the Atlantic to The Jackson Laboratory*
- 7:45 am *Transportation from The Bar Harbor Regency to The Jackson Laboratory*
- 8:00 – 9:00 am **Registration and Breakfast**
The Jackson Laboratory (600 Main St, Bar Harbor, ME)
- 9:00 – 9:45 am **Humanized mouse models to pioneer solid tumor research**
Silke Paust, Ph.D., The Jackson Laboratory
- 9:45 – 10:30 am **Mitochondrial genome instability as a driver of inflammation in cancer and chemotherapy-related toxicity**
Phillip West, Ph.D., The Jackson Laboratory
- 10:30 – 11:00 am *Break*
- 11:00 – 11:45 am **T cells with regulatory function**
Alma Cepika, M.D., Ph.D., Stanford University
- 11:45 – 12:30 pm **Rising Stars Talks**
- Functional assessment of chemotherapy-induced peripheral neuropathy in rodent models**
Mario Heles, Ph.D., University of Texas MD Anderson Cancer Center (Dougherty Lab)
- Decoding genetic regulators of cellular quiescence in AML**
Sakthi Harini Rajendran, Ph.D., The Jackson Laboratory / UConn Health (Wang Lab)
- HMG2A2 regulates GPX4 expression and ferroptosis in prostate cancer cells**
Precious Dike, Ph.D., Morgan State University (Odero-Marrah Lab)
- 12:30 – 1:30 pm **Lunch with Speakers**
Roscoe's Café

- 1:30 – 2:00 pm **Rising Stars Talks**
- Cytoplasmic localization of RNA-binding proteins promote multi-drug resistance**
Sadik Karma, Ph.D., The Jackson Laboratory / UConn Health (Wang Lab)
- Global Proteomics and Integrative Thermal Proteome Profiling of Hepatic Stellate Cells in Liver Fibrogenesis**
Ian Green, B.S., Indiana University, Simon Cancer Center (Mosley Lab)
- 2:00 – 3:30 pm **Panel Discussion**
Moderators: Brent Berwin, Ph.D., The Jackson Laboratory and Silke Paust, Ph.D., The Jackson Laboratory
- 3:30 – 5:30 pm **Workshop: Measuring xenografts**
Muneer Hasham, Ph.D., The Jackson Laboratory
- 3:30 pm *Transportation from The Jackson Laboratory to The Bar Harbor Regency and College of the Atlantic is available for those not participating in the workshop.*
- 5:30 pm *Transportation from The Jackson Laboratory to The Bar Harbor Regency and College of the Atlantic.*
- 6:30 – 8:00 pm **JAX Cancer Center Lecture & Dinner Reception featuring Edison Liu, M.D., The Jackson Laboratory**
The Cancer Concept through the Centuries
*Bar Harbor Regency – Stone House
123 Eden St, Bar Harbor, ME*

Saturday, August 10th

Moderator: [Ryan Englander, The Jackson Laboratory](#)

- 7:40 am *Transportation from College of the Atlantic to The Jackson Laboratory*
- 7:45 am *Transportation from The Bar Harbor Regency to The Jackson Laboratory*
- 8:00 – 9:00 am **Registration and Breakfast**
The Jackson Laboratory (600 Main St, Bar Harbor, ME)
- 9:00 – 9:45 am **Structure and Function of Mammalian SWI/SNF Chromatin Remodeling Complexes in Health and Disease**
Siddhant Jain Ph.D., Dana Farber Cancer Institute
- 9:45 – 10:30 am **Repetitive sequences predispose mammalian genomes to genomic instability**
Christine Beck, Ph.D., The Jackson Laboratory
- 10:30 – 11:00 am *Break*

- 11:00 – 11:45 am **Deciphering Cellular Epigenome Heterogeneity and Evolution in Cancer within an Aged Ecosystem**
Sheng Li, Ph.D., The Jackson Laboratory
- 11:45 – 12:30 pm **AI and Immunology: Past, Present, and Future**
John Tsang, Ph.D., MMath, Yale School of Medicine
- 12:30 – 1:30 pm **Lunch with Speakers**
Roscoe's Café
- 1:30 – 2:15 pm **Dissecting the role of tumor-microenvironment interactions in the evolution of diffuse glioma**
Frederick Varn, Ph.D., The Jackson Laboratory
- 2:15 – 3:30 pm **Workshop: cBioPortal**
Carol Bult, Ph.D., The Jackson Laboratory
- 2:15 pm *Transportation from The Jackson Laboratory to The Bar Harbor Regency and College of the Atlantic available for those not attending the workshop.*
- 3:30 pm *Transportation from The Jackson Laboratory to College of the Atlantic and Bar Harbor Regency for workshop participants.*
- 3:30 pm *Free Time*
Dinner on your own (No dinner at College of the Atlantic will be served)

Sunday, August 11th

Moderator: Phillip West, Ph.D., The Jackson Laboratory

- 7:40 am *Transportation from College of the Atlantic to The Jackson Laboratory*
- 7:45 am *Transportation from The Bar Harbor Regency to The Jackson Laboratory*
- 8:00 – 9:00 am **Registration and Breakfast**
The Jackson Laboratory (600 Main St, Bar Harbor, ME)
- 9:00 – 9:45 am **Studying aging in mice**
Ron Korstanje, Ph.D., The Jackson Laboratory
- 9:45 – 10:30 am **The lymphatic system and immune trafficking in cancer**
Amanda Lund, Ph.D., NYU Grossman School of Medicine
- 10:30 – 11:00 am *Break*
- 11:00 – 11:45 am **Age related stromal changes drive tumorigenesis**
Sheila Stewart, Ph.D., Washington University in St. Louis
- 11:45 – 12:30 pm **Understanding Immune Aging to Improve Breast Cancer Outcomes**
Sandra McAllister, Ph.D., Brigham & Women's Hospital

- 12:30 – 1:30 pm **Lunch with Speakers**
Roscoe's Café
- 1:30 – 2:15 pm **Understanding and Modeling Cancer in the Context of Old Age**
Ana Gomes, Ph.D., Moffitt Cancer Center
- 2:15 – 3:00 pm **Systems immunology to study human immune aging and reduced vaccine responses**
Duygu Ucar, Ph.D., The Jackson Laboratory
- 3:00– 3:15 pm *Break*
- 3:15 – 4:00 pm **Rising Stars Talks**
- Investigating Monocytes in Acute Myeloid Leukemia**
Daniel Phillips, B.S., O'Neal Comprehensive Cancer Center at UAB (Welner Lab)
- Alternative splicing as a driver of immune dysfunction in lung adenocarcinoma**
Ryan Englander, M.S., The Jackson Laboratory / UConn Health (Palucka/Anczukow Labs)
- Histological Transformation and Tumor Plasticity in the Lung**
Eric Gardner, Ph.D., Weill Cornell Medicine (Varmus Lab)
- 4:00 – 5:30 pm **Panel Discussion**
Moderators: Phillip West, Ph.D., The Jackson Laboratory and Sheila Stewart, Ph.D., Washington University in St. Louis
- 5:30 pm *Transportation from The Jackson Laboratory to The Bar Harbor Regency*
- 6:00 – 8:00 pm **Lobster Dinner at the Bar Harbor Regency**
The Bar Harbor Regency – Stone House

Monday, August 12th

Moderators: [Carol Bult, Ph.D., The Jackson Laboratory](#) and [Jeff Chuang, Ph.D., The Jackson Laboratory](#)

- 7:40 am *Transportation from College of the Atlantic to The Jackson Laboratory*
- 7:45 am *Transportation from The Bar Harbor Regency to The Jackson Laboratory*
- 8:00 – 9:00 am **Registration and Breakfast**
The Jackson Laboratory (600 Main St, Bar Harbor, ME)
- 9:00 – 9:45 am **Health Disparities and Drug Resistance in Prostate and Breast Cancer**
Valerie Otero-Marah, Ph.D., Morgan State University
- 9:45 – 10:30 am **Molecular Epidemiology of Triple Negative Breast Cancer in African American Women**
Luisel Ricks-Santi, Ph.D., University of Florida

10:30 – 11:00 am	<i>Break</i>
11:00 – 11:45 am	Analysis of Cancer Spatial Data Jeff Chuang, Ph.D., The Jackson Laboratory
11:45 – 12:30 pm	Foundation models for cellular image analysis David van Valen, Ph.D., California Institute of Technology
12:30 – 1:30 pm	Lunch with Speakers <i>Roscoe's Café</i>
1:30 – 3:00 pm	Workshop: PDX Jeff Chuang, Ph.D., The Jackson Laboratory
3:00 – 3:30 pm	<i>Break</i>
3:30 – 5:00 pm	Workshop: Experimenting with the Use of Large-Language Models for biomarker identification and prioritization Damien Chaussabel, Ph.D., The Jackson Laboratory
5:00 pm	Adjourn Closing remarks by Karolina Palucka, M.D., Ph.D., The Jackson Laboratory
5:30 pm	<i>Transportation from The Jackson Laboratory to College of the Atlantic and The Bar Harbor Regency</i> <i>Dinner on your own (No dinner at College of the Atlantic will be served)</i>

Tuesday, August 13th

9:00 am	<i>Check-out for those staying at College of the Atlantic</i>
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