



VIRTUAL | 29th Annual Short Course on Experimental Models of Human Cancer

August 17 – 28, 2020

Registered Attendees will receive access to our Canvas LMS approximately two weeks in advance of the course. Pre-recorded content will be available on initial login to Canvas. Each day of the course, additional pre-recorded lectures will be uploaded with live afternoon sessions for Q&A with speakers, Keynote Lectures, and Workshops. The times of all live sessions are shown in Eastern Daylight Time, and will be available on-demand 48 hours after session. Each pre-recorded lecture will be approximately 60 minutes in length.

Schedule is Subject to Change

Monday, August 17

PRE-RECORDED CONTENT

To be released August 13th @ 4pm

Introduction to Cancer

Edison Liu, M.D., *The Jackson Laboratory*

The Mechanistic Basis of Cancer Immunotherapy

Ira Mellman, Ph.D., *Genentech*

Inflammation and Cancer: Good Cells Behaving Badly

Lisa Coussens, Ph.D., *Oregon Health and Sciences University*

Exploiting Metabolic Stress in Cancer Treatments

Tak Mak, Ph.D., *University Health Network, Princess Margaret Cancer Centre*

Tuesday, August 18

PRE-RECORDED CONTENT

To be released August 14th @ 4pm

Homeostatic Mechanisms Control The Partnership of Dormant DCCs and Adult Stem Cell Niches

Julio Aguirre-Ghiso, Ph.D., *Icahn School of Medicine at Mount Sinai*

Mechanisms of Residual Cell Survival and Recurrence in Breast Cancer

James Alvarez, Ph.D., *Duke University*

Biology of Minimal Residual Disease

Maria Soledad Sosa, Ph.D., *Icahn School of Medicine at Mount Sinai*

High-dimensional Immune Monitoring in Cancer Immunotherapy to Find New Predictive or Prognostic Biomarkers

Sacha Gnjatic, Ph.D., *Icahn School of Medicine at Mount Sinai*

LIVE SESSIONS

11:00 am – 1:00pm

Panel Discussion: Mechanisms of IO Resistance & Q&A Session With Faculty

Presented by: Lisa Coussens, Tak Mak, Elaine Pinheiro, Mario Sznol & Ira Mellman

Moderator: Ira Mellman

Wednesday, August 19

PRE-RECORDED CONTENT

To be released August 17th @ 4pm

Induction of Adaptive Immunity

Stephanie Eisenbarth, Ph.D., *Yale University*

Human Dendritic Cells in the High-dimensional Era

Juliana Idoyaga, Ph.D., *Stanford University*

Long Non-Coding RNA in the Immune System

Adam Williams, Ph.D., *The Jackson Laboratory*

Innate Lymphoid Cells in Biology

Marco Colonna, M.D., *Washington University School of Medicine*

Tools for T Cells: Infection and Cancer

Mark Davis, Ph.D., *Stanford University*

LIVE SESSIONS

11:00 am – 1:00 pm **Panel Discussion: Immune Mechanisms of Metastatic Disease & Q&A Session With Faculty**

Presented by: Julio Aguirre-Ghiso, James Alvarez, Sacha Gnjatic & M. Soledad Sosa

Moderators: Lisa Coussens, M. Soledad Sosa & Francesca Menghi

2:00 pm **Lecture: Advanced Dynamic and Static Optical Imaging Methods for Exploration of Tumor-Immune System Interactions**

Ronald Germain, M.D., Ph.D., *National Institutes of Health*

Thursday, August 20

PRE-RECORDED CONTENT

To be released August 18th @ 4pm

Clinical Cancer Immunotherapy – An Introduction

Mario Sznol, M.D., *Yale University*

Reverse Translational Studies to Guide Anti-PD-1 Cancer Combination Strategies in the Clinic

Elaine Pinheiro, Ph.D., *Merck*

Designing Therapeutic Cancer Vaccines for Natural and Synthetic T cells

Darrell Irvine, Ph.D., *Massachusetts Institute of Technology*

Role of the Microbiota in Local and Systemic Immune Responses

Dan R. Littman, M.D., Ph.D., *New York University Langone Health*

Mechanisms of Autoimmunity and Autoinflammation

Virginia Pascual, M.D., *Weill Cornell Medicine*

The Power of ONE: Immunology in the Age of Single Cell Genomics

Ido Amit, Ph.D., *Weizmann Institute of Science*

LIVE SESSIONS

11:00 am – 1:00 pm **Panel Discussion: Antigen Presentation & Q&A Session With Faculty**

Presented by: Marco Colonna, Mark Davis, Stephanie Eisenbarth, Ronald Germain, Juliana Idoyaga & Adam Williams

Moderators: Juliana Idoyaga & Jan Martinek

2:00 pm **Virtual Poster Session**

Friday, August 21

PRE-RECORDED CONTENT

To be released August 19th @ 4pm

Fundamentals of Genomics and Immunogenetics

Elaine Mardis, Ph.D., *Nationwide Children's Hospital*

Alternative RNA Splicing Defects in Cancer: Molecular and Therapeutic Insights From Model Systems

Olga Anczukow, Ph.D., *The Jackson Laboratory*

RNA Isoforms in Cancer Diagnosis and Therapy

Jacques Banchemereau, Ph.D., *The Jackson Laboratory*

Opposing Roles of Interferon and Pattern Recognition Receptor Signaling in Cancer and Cancer Immunology

Andy Minn, M.D., *Pennsylvania State University*

Sexual Dimorphism in Immune System Aging

Duygu Ucar, Ph.D., *The Jackson Laboratory*

Workshop: cBio Portal for Cancer Genomics

Carol Bult, Ph.D., *The Jackson Laboratory*

LIVE SESSIONS

11:00 am – 1:00 pm **Panel Discussion: Regulation of Immune Responses & Q&A Session With Faculty**

Presented by: Mark Davis, Darrell Irvine, Matthew Krummel, Dan Littman, Ira Mellman, Virginia Pascual, Elaine Pinheiro & Mario Sznol

Moderators: Lucas Chang & Mario Sznol

2:00 pm **Attendee Short Talks**

Monday, August 24

PRE-RECORDED CONTENT

To be released August 21st @ 4pm

Introduction to Cancer Genomics

Roel Verhaak, Ph.D., *The Jackson Laboratory*

Repeats and Genomic Instability – From Retrotransposition to Recombination

Christine Beck, Ph.D., *The Jackson Laboratory*

Epigenetic Evolution and Heterogeneity in Acute Myeloid Leukemia

Sheng Li, Ph.D., *The Jackson Laboratory*

LIVE SESSIONS

11:00 am – 1:00 pm Panel Discussion: **Harnessing Transcriptome for Therapy & Q&A with Faculty**

Presented by: Olga Anczukow, Andy Minn & Duygu Ucar

Moderators: Olga Anczukow & Duygu Ucar

2:00 pm Workshop: **Single Cell RNAseq**
Paul Robson, Ph.D., *The Jackson Laboratory*

Tuesday, August 25

PRE-RECORDED CONTENT

To be released August 23rd @ 4pm

Human Pancreatic Cancer Insights from Model Systems

David Tuveson, M.D., Ph.D., *Cold Spring Harbor Laboratory*

Metabolic Stress and its Role in the Initiation and Progression of Primary and Metastatic Liver Cancer

Michael Karin, Ph.D., *University of California San Diego*

Modeling Anti-Cancer Immune Responses in Mice

Marcus Bosenberg, M.D., Ph.D., *Yale University*

Unraveling the Complexity of Drug Resistance in Lung Cancer

Katerina Politi, Ph.D., *Yale University*

Use of Animal Models to Design Strategies to Overcome Resistance to Immune Checkpoint Blockade

Taha Merghoub, Ph.D., *Memorial Sloan Kettering Cancer Center*

Imaging and World Beyond Checkpoint: Archetypes of Immunity Across Cancer

Matthew Krummel, Ph.D., *University of California San Francisco*

Tumor Microenvironment and Cancer Immunity

David DeNardo, Ph.D., *Washington University School of Medicine*

LIVE SESSIONS

11:00 am – 1:00 pm **Panel Discussion: Genomics of Cancer & Q&A With Faculty**

Presented by: Christine Beck, Sheng Li, Elaine Mardis, & Roel Verhaak

Moderators: Jeffrey Chuang, Elaine Mardis & Christine Beck

2:00 pm **Workshop: Data Analysis and Resources for Patient-Derived Cancer Models**

Jeffrey Chuang, Ph.D., *The Jackson Laboratory*

Mike Lloyd, Ph.D., *The Jackson Laboratory*

Soner Koc, *Seven Bridges Genomics*

Wednesday, August 26

PRE-RECORDED CONTENT

To be released August 24th @ 4pm

Emerging Models of Humanized Mice for Cancer Research

Lenny Shultz, Ph.D., *The Jackson Laboratory*

Creating Treatment Strategies for Poor Prognosis Acute Myeloid Leukemia

Fumihiko Ishikawa, M.D., Ph.D., *RIKEN*

DAB-2 Expressing TAMs Promote Cancer Cell Invasion

Vincenzo Bronte, Ph.D., *University of Verona*

Impact of Dendritic Cells on Anti-tumor Immunity

Stefani Spranger, Ph.D., *Massachusetts Institute of Technology*

Reprogramming the Tumor Microenvironment to Enhance Cancer Treatment: Bench to Bedside

Rakesh K. Jain, Ph.D., *Harvard Medical School*

LIVE SESSIONS

11:00 am – 1:00 pm Panel Discussion: **From Clinic to Models & Q&A with Faculty**

Presenters: David DeNardo, Matthew Krummel, Marcus Bosenberg, Michael Karin, Taha Merghoub, Katerina Politi & David Tuveson

Moderators: Marcus Bosenberg & Gary Ren

2:00 pm Coffee Hour: **Grantwriting for Impact**

Anna Lisa Lucido, Ph.D., PMP, *The Jackson Laboratory*

3:00 pm Coffee Hour: **Manuscripts: Writing, Improving and Publishing Your Manuscript – Tips For Early Career Scientists**

Iiro Taneli Helenius, M.S., Ph.D., *The Jackson Laboratory*

Thursday, August 27

PRE-RECORDED CONTENT

To be released August 25th @ 4pm

Zebrafish Models of Human Cancer: Dissection of Cancer Cell Dependencies Using Genetic and Chemical Approaches

Thomas Look, M.D., *Harvard Medical School, Dana-Farber Cancer Institute*

Zebrafish Avatars of Human Cancer

David Langenau, Ph.D., *Harvard Stem Cell Institute*

3D Bioprinting the Cancer Microenvironment

Tarik Ozbolat, Ph.D., *Pennsylvania State University*

CRISPR Technologies for Genome, Epigenome and Transcriptome

Albert Cheng, Ph.D., *The Jackson Laboratory*

Modeling Epigenetic Dysregulation in Pediatric High-Grade Glioma

Suzanne Baker, Ph.D., *St. Jude Children's Research Hospital*

Implementing Precision Medicine in Pediatric Oncology: Challenges and Opportunities

Ching Lau, M.D., Ph.D., *The Jackson Laboratory*

LIVE SESSIONS

11:00 am – 1:00 pm Panel Discussion: **In Vivo Cancer Models & Q&A with Faculty**

Presenters: Vincenzo Bronte, Fumihiko Ishikawa, Rakesh Jain, Lenny Shultz & Stefani Spranger

Moderators: Rakesh Jain & Chun Yu

2:00 pm **Maine Cancer Genomics Initiative and Ethics in Human Cancer Research**

Jens Rueter, M.D., *The Jackson Laboratory*

Friday, August 28

LIVE SESSIONS

- 11:00 am – 1:00 pm **Panel Discussion: Cancer Models & Q&A with Faculty**
- Presenters:** Suzanne Baker, Alberg Cheng, David Langenau, Ching Lau, Thomas Look & Tarik Ozbolat
Moderators: Suzanne Baker & Olga Anczukow
- 2:00 pm – 4:00 pm **Closing Panel Discussion: Quo Vadis Cancer Research**
- Presenters:** Julio Aguirre-Ghiso, Jacques Banchereau, Marcus Bosenberg, Vincenzo Bronte, Lisa Coussens, Michael Karin, Matthew Krummel, Edison Liu, Elaine Mardis, Ira Mellman, Stefani Spranger & Mario Sznol
Moderator: Karolina Palucka

- End -