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## NCI Immuno-Oncology Models Workshop

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July 9 - 10, 2020

Virtual Meeting

Link to access Zoom meeting will be provided once registration is confirmed.  
There will be a distinct Zoom meeting link for each day of the workshop.

Registration access and speaker biographies are on the [meeting website](#).

AGENDA (Eastern Daylight Time)

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### **Thursday, July 9** **Eastern Daylight Time**

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| 10:00 am – 10:05 am        | <b>Welcome and Introductions</b><br>Nastaran Zahir, PhD, National Cancer Institute  |
| 10:05 am – 10:15 am        | <b>Overview and Goals</b><br>Meeting Chairs<br>Karolina Palucka, MD, PhD, The JAX Cancer Center<br>Emile Voest, MD, PhD, Netherlands Cancer Institute     |
| 10:15 am – 10:50 am        | <b>Keynote Lecture</b><br><i>Modeling mechanisms of immunotherapy resistance in mouse</i><br>Thomas Gajewski, MD, PhD, The University of Chicago Medicine |
| <b>10:50 am – 11:00 am</b> | <b>Short Break</b>  |

### **Session 1: Mouse Models and Tumor-Immune Cell Interactions**

*Chair: Dmitry Garbrilovich, MD, PhD, AstraZeneca*

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|---------------------------|---|
| 11:00 am – 11:25 am       | <i>Neutrophils and PMN-MDSC in regulation of tumor progression</i><br>Dmitry Garbrilovich, MD, PhD, AstraZeneca       |
| 11:25 am – 11:50 am       | <i>Lymphatic vessels, immune surveillance, and immune escape in melanoma</i><br>Amanda Lund, PhD, New York University |
| 11:50 am – 12:15 pm       | <i>Imaging and discovering anti-tumoral archetypes of immunity</i><br>Matthew Krummel, PhD, UC San Francisco          |
| 12:15 pm – 12:30 pm       | <i>Discussion: Current challenges and needs in the field</i>  |
| <b>12:30 pm – 1:15 pm</b> | <b>Long Break</b>   |

**Session 2: Genetic Mouse Models for Immuno-Oncology***Chair: Marcus Bosenberg, MD, PhD, Yale School of Medicine*

- 1:15 pm – 1:40 pm      *Modeling anti-cancer immune responses in mice*  
Marcus Bosenberg, MD, PhD, Yale School of Medicine
- 1:50 pm – 2:05 pm      *Decoding and reprogramming T cells in tumors*  
Andrea Schietinger, PhD, Memorial Sloan Kettering Cancer Center
- 2:05 pm – 2:30 pm      *Inherited susceptibility to mammary tumor metastasis*  
Kent Hunter, PhD, National Cancer Institute
- 2:30 pm – 2:45 pm      *Discussion: Current challenges and needs in the field*
- 2:45 pm – 3:00 pm      Short Break**

**Session 3: Human in Mouse Models***Chair: Karolina Palucka, MD, PhD, The JAX Cancer Center*

- 3:00 pm – 3:25 pm      *Emerging humanized mouse models for cancer research*  
Lenny Shultz, PhD, The JAX Cancer Center
- 3:25 pm – 3:50 pm      *Creating treatment strategies for poor prognosis leukemia (pre-recorded)*  
Fumihiko Ishikawa, MD, PhD, RIKEN
- 3:50 pm – 4:15 pm      *Humanized mouse models for immuno-oncology*  
Anthony Rongvaux, PhD, Fred Hutchinson Cancer Research Center
- 4:15 pm – 4:40 pm      *Humanized mice to study interactions between human cancer and immune system*  
Karolina Palucka, MD, PhD, The JAX Cancer Center
- 4:40 pm – 4:55 pm      *Discussion: Current challenges and needs in the field*
- 4:55 pm – 5:00 pm      Day 1 Recap**  
Meeting Chairs  
Karolina Palucka, MD, PhD, The JAX Cancer Center  
Emile Voest, MD, PhD, Netherlands Cancer Institute
- 5:00 pm                      Day 1 Meeting Adjournment**

**Friday, July 10**  
**Eastern Daylight Time**

10:00 am – 10:05 am      **Welcome Day 2**  
 Nastaran Zahir, PhD, National Cancer Institute

**Session 4: Models for Therapeutics**

*Chair: Alana Welm, PhD, University of Utah*

10:05 am – 10:30 am      *Short-form Ron kinase as a new target to stimulate anti-tumor immune responses and clear metastatic breast tumors*  
 Alana Welm, PhD, University of Utah

10:30 am – 10:55 am      *Visualizing patient-specific immunotherapy responses in human tumor fragments*  
 Daniela Thommen, PhD, Netherlands Cancer Institute

10:55 am – 11:20 am      *Utilization of preclinical models for reverse translational studies to guide anti-PD-1 cancer combination strategies in the clinic*  
 Elaine Pinheiro, PhD, Merck Research Laboratories

11:20 am – 11:35 am      *Discussion: Current challenges and needs in the field*

**11:35 am – 11:50 am      Short Break**

**Session 5: Tumor Organoids as Individualized Models for Cancer Treatment**

*Chair: Emile Voest, MD, PhD, Netherlands Cancer Institute*

11:50 am – 12:15 pm      *Potential and pitfalls of using tumor organoids to study immunotherapy*  
 Emile Voest, MD, PhD, Netherlands Cancer Institute

12:15 pm – 12:40 pm      *Designer organoids to study signaling and therapeutic response in patient-derived tumor cells*  
 Ankur Singh, PhD, Georgia Institute of Technology

12:40 pm – 12:55 pm      *Discussion: Current challenges and needs in the field*

**12:55 pm – 1:30 pm      Long Break**

**Session 6: Immune Toxicity and Comparative Models**

*Chair: Amy Leblanc, DVM, National Cancer Institute*

1:30 pm – 1:55 pm      *A comparative approach to immune-oncology drug development: Integration of canine models*  
 Amy Leblanc, DVM, National Cancer Institute

1:55 pm – 2:20 pm      *Developing checkpoint inhibition with reduced toxicity*  
 Lawrence Fong, MD, UC San Francisco

2:20 pm – 2:45 pm *Bone marrow-liver-thymus immune humanized mice as a model to predict immune-related adverse events*  
Kristina Howard, DVM, PhD, U.S. Food and Drug Administration

2:45 pm – 3:00 pm *Discussion: Current challenges and needs in the field*

**3:00 pm – 3:15 pm Short Break**

### **Session 7: Genomics of Response to Therapy and Computational Models**

*Chair: Trey Ideker, PhD, UC San Diego*

3:15 pm – 3:40 pm *Predicting drug response and synergy using a deep learning model of a cancer cell*  
Trey Ideker, PhD, UC San Diego

3:40 pm – 4:05 pm *Deciphering cell-cell interactions in the tumor microenvironment from single-cell data*  
Kathryn Miller-Jensen, PhD, Yale University

4:05 pm – 4:30 pm *Genetic interactions and tumor deconvolution: new computational approaches in immunotherapy*  
Eytan Ruppim, MD, PhD, National Cancer Institute

4:30 pm – 4:55 pm *Quantitative approaches for interpreting cancer image and sequence data*  
Jeffrey Chuang, PhD, The JAX Cancer Center

4:55 pm – 5:10 pm *Discussion: Current challenges and needs in the field*

**5:10 pm – 5:25 pm Short Break**

**5:25 pm – 5:50 pm Discussion: Summary of challenges and needs in the field and identifying next steps**

Meeting Chairs

Karolina Palucka, MD, PhD, The JAX Cancer Center

Emile Voest, MD, PhD, Netherlands Cancer Institute

**5:50 pm – 6:00 pm Wrap-up and Closing Remarks**

Mariam Eljanne, PhD, National Cancer Institute

Elad Sharon, MD, MPH, National Cancer Institute

Nastaran Zahir, PhD, National Cancer Institute

**6:00 pm Meeting Adjournment**