

Oncology Models Forum

2021 Annual Meeting

Agenda

DAY 1

DATE: Tuesday, March 30, 2021

TIME: 11:00 am – 4:30 pm EST

TIME	TITLE	SPEAKER
11:00 am	Welcome and Introduction	Joanna Watson, PhD NCI
Session 1: Application and Credentialing of Novel Technologies		
11:10 am – 11:30 am	<i>Preclinical models of metastatic gastric cancer reveal new principles of immune surveillance</i> PI: Scott Lowe, PhD Sloan Kettering Institute	Josef Leibold, PhD University of Tübingen
11:30 am – 11:50 am	<i>Rapid Interrogation of Cancer Variants using Base Editing Screens</i> PI: Lukas Dow, PhD Weill Cornell Medicine	Bianca Diaz Weill Cornell Medicine
11:50 am – 12:10 pm	<i>Partnering with patients to discover dependencies of rare tumors</i> PI: Jesse S. Boehm, PhD Broad Institute	Jesse S. Boehm, PhD Broad Institute
12:10 pm – 12:30 pm	<i>Multimodal Functional Imaging of Heterogeneity in Patient-Derived Models of Head and Neck Cancer</i> PI: Mukund Seshadri, PhD Roswell Park Comprehensive Cancer Center	Mukund Seshadri, PhD Roswell Park Comprehensive Cancer Center
Session 1: Flash Talks		

12:30 pm – 12:35 pm	<i>Occult polyclonality of preclinical pancreatic cancer models drives in vitro evolution</i> PI: Anirban Maitra, MBBS MD Anderson Center	Maria Monberg MD Anderson Center
12:35 pm – 12:40 pm	<i>Imaging studies in a preclinical model of pancreatic cystic neoplasia</i> PI: Anirban Maitra, MBBS MD Anderson Center	Sonja Woermann, PhD MD Anderson Center
12:40 pm – 12:45 pm	<i>Credentialing Patient-derived Organoid Models of Head and Neck Cancer</i> PI: Mukund Seshadri, DDS, PhD Roswell Park Comprehensive Cancer Center	Vincent Vui King Chong, PhD Roswell Park Comprehensive Cancer Center
12:45 pm – 12:50 pm	<i>Living tissue imaging-based dependency biosensors for gastroesophageal tumors</i> PI: Jesse Boehm, PhD Broad Institute	Mushriq Al-Jazrawe Broad Institute
12:50 pm – 12:55 pm	<i>A Novel Pre-Clinical Model to Further Understand Role of Immunity in Cervical Cancer</i> PI: T.-C. Wu, MD, PhD Johns Hopkins University	Talia Henkle, PhD Johns Hopkins University
12:55 pm – 1:15 pm	BREAK (20 minutes)	
Session 2: Models for Credentialing Cancer Biology and the Microenvironment		
1:15 pm – 1:35 pm	<i>Modeling K-Ras allelic variation in mice</i> PI: Kevin Haigis, PhD Dana Farber Cancer Institute	Kevin Haigis, PhD Dana Farber Cancer Institute
1:35 pm – 1:55 pm	<i>Highly penetrant and immunogenic mouse models of non-viral HCC that are suitable for evaluation of immune checkpoint inhibitors</i> PI: Michael Karin, PhD University of California, San Diego	Michael Karin, PhD University of California, San Diego

1:55 pm – 2:15 pm	<i>Interrogating cellular heterogeneity in liver regeneration and cancer</i> PI: Hao Zhu, MD Children’s Medical Center Research Institute at UT Southwestern	Hao Zhu, MD Children’s Medical Center Research Institute at UT Southwestern
2:15 pm – 2:35 pm	<i>Expansion of tumoroid models for precise treatment of the rectal cancer patient</i> PI: Josh Smith, MD Memorial Sloan Kettering Cancer Center	Brian Szeglin Memorial Sloan Kettering Cancer Center
Session 2: Flash Talks		
2:35 pm – 2:40 pm	<i>Modeling necrosis and the tumor microenvironment in glioblastoma to improve therapeutic targeting</i> PI: Dan Brat, MD Northwestern University	Steve Markwell, PhD Northwestern University
2:40 pm – 2:45 pm	<i>Improving hepatocellular carcinoma mouse modeling by understanding the malignant potential and biology of liver cell subpopulations</i> PI: Hao Zhu, MD Children’s Medical Center Research Institute at UT Southwestern	Andrew Chung Children’s Medical Center Research Institute at UT Southwestern
2:45 pm – 2:50 pm	<i>Modeling acute inflammation in Patient Derived Xenografts (PDX) of Chronic Myelomonocytic Leukemia (CMML)</i> PI: Eric Padron, MD Moffitt Cancer Center	Hannah Newman Moffitt Cancer Center
2:50 pm – 3:10 pm	BREAK (20 minutes)	
Session 3: Models for Predicting and Evaluating Therapies		
3:10 pm – 3:30 pm	<i>Development of combination regimens for myeloid malignancies in humanized mice</i> Leighton Grimes, PhD, Cincinnati Children’s Hospital Stephanie Helene, MD, Yale University	Stephanie Helene, MD Yale University

3:30 pm – 3:50 pm	<i>Modeling necrosis and the tumor microenvironment in glioblastoma to improve therapeutic targeting</i> PI: Daniel Brat, PhD Northwestern University	Daniel Brat, PhD Northwestern University
3:50 pm – 4:10 pm	<i>Rescue of cognitive function following fractionated brain irradiation in a novel preclinical glioma model</i> PI: Susanna Rosi, PhD and Nalin Gupta, MD University of California San Francisco	Nalin Gupta, MD, PhD University of California San Francisco
4:10 pm	Wrap-up	

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DAY 2

DATE: Wednesday, March 31, 2021

TIME: 11:00 am – 5 pm EST

TIME	TITLE	SPEAKER
11:00 am	Welcome	Joanna Watson, PhD NCI
Session 4: Models for Predicting and Evaluating Therapies, continued		
11:10 am – 11:30 am	<i>Integration of high dimensional datasets in an immunocompetent mammary mouse model</i> PI: Mary Helen Barcellos-Hoff, PhD University of California, San Francisco	Mary Helen Barcellos-Hoff, PhD University of California, San Francisco
11:30 am – 11:50 am	<i>Investigating cancer immunology using the NINJA model</i> PI: Nikhil Joshi, PhD Yale University School of Medicine	Nikhil Joshi, PhD Yale University School of Medicine
11:50 am – 12:10 pm	<i>Polymerase-based ultramutagenesis in animal cancer models</i> PI: Diego Castrillon, Ph.D. UT Southwestern Medical Center	Diego Castrillon, Ph.D. UT Southwestern Medical Center
Session 4: Flash Talk		

12:10 pm – 12:15 pm	<i>Patient-Derived Cell Modeling Neuroendocrine Tumors</i> PI: Xuefeng Liu, PhD Georgetown University	Seema Agarwal, PhD Georgetown University
12:15 pm – 12:35 pm	Break (20 minutes)	
Session 5: Credentialing in Non-Mouse Models		
12:35 pm – 12:55 pm	<i>A novel adenoviral-permissive, immunocompetent hamster model to evaluate oncolytic adenoviral therapy for glioblastoma</i> PI: Frederick Lang, MD MD Anderson Center	Frederick Lang, MD The University of Texas, MD Anderson CancerCenter
12:55pm – 1:15 pm	<i>Porcine Models of Pancreatic Cancer</i> PI: Mark Carlson, MD University of Nebraska Medical Center	Mark Carlson, MD University of Nebraska Medical Center
1:15 pm – 1:35 pm	<i>Human basal-like breast cancer is represented by one of the two intrinsic mammary cancer subtypes in dogs</i> PI: Shaying Zhao, PhD University of Georgia	Shaying Zhao, PhD University of Georgia
1:35 pm – 1:55 pm	<i>Dog as a comparative model for cancer</i> PI: Kerstin Lindbald-Toh, PhD Broad Institute of MIT and Harvard	Kerstin Lindbald-Toh, PhD Broad Institute of MIT and Harvard
1:55 pm – 2:15 pm	<i>Advancing blood biopsy through the canine comparative model</i> PI: Elinor Karlsson, PhD Broad Institute of MIT and Harvard	Elinor Karlsson, PhD Broad Institute of MIT and Harvard
Session 5: Flash Talks		
2:15 pm – 2:20 pm	<i>Canine Osteosarcoma as a Model of DMD Deletion</i> PI: Elinor Karlsson, PhD Broad Institute of MIT and Harvard	Heather Gardner, PhD, DVM, DAVCIM Broad Institute of MIT and Harvard

2:20 pm – 2:25 pm	<i>Enabling comparative genomics through a machine learning classifier for human and canine cancers</i> PI: Elinor Karlsson, PhD Broad Institute of MIT and Harvard	Kate Mecquier, PhD Broad Institute of MIT and Harvard
2:25 pm – 2:45 pm	Break (20 minutes)	
Session 6: PRECINCT – Pre-medical Cancer Immunotherapy Network Canine Trials		
2:45 pm – 3:05 pm	<i>Introduction to Comparative Oncology Program</i>	Amy LeBlanc, DVM DACVIM NCI
3:05 pm – 3:25 pm	<i>Introduction to PRECINCT</i>	Nicola Mason, PhD, BVM University of Pennsylvania
3:25 pm – 3:45 pm	<i>Enhancing the efficacy of immunotherapy in diffuse large B cell lymphoma (DLBCL) using rational combination approaches</i> PI: Cheryl London, DVM, PhD Tufts Cummings School of Veterinary Medicine	Cheryl London, DVM, PhD Tufts Cummings School of Veterinary Medicine
3:45 pm – 4:05 pm	<i>Modulation of autophagy and apoptosis in doxorubicin treated canine cardiac slices</i> PI: Cheryl London, DVM, PhD Tufts Cummings School of Veterinary Medicine	Vicky Yang, DVM, PhD Tufts Cummings School of Veterinary Medicine
4:05 pm – 4:25 pm	<i>Immunotherapy Trial in Pet Dogs with High-grade Glioma Promotes Translation to Phase I Human Glioblastoma Trial</i> PI: Michael Olin, PhD University of Minnesota	Michael Olin, PhD University of Minnesota
4:25 pm – 4:45 pm	<i>Comparable Safety and Efficacy Challenges for CAR-T Therapy in Human and Canine Patients with B cell Malignancies</i> PI: Nicola Mason, PhD, BVM University of Pennsylvania	Nicola Mason, PhD, BVM University of Pennsylvania
4:45 pm – 5:00 pm	Discussion: Moderated by Amy Leblanc	
5:00 pm	Wrap-Up	

Oncology Models Forum 2021 Annual Meeting

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DAY 3

DATE: Thursday, April 8, 2021

TIME: 11:00 am – 5:00pm EST

TIME	TITLE	SPEAKERS
11:00	Welcome	Joanna Watson, PhD Division of Cancer Biology, NCI
Session 7: Models for Credentialing Immune Functions and Responses		
11:10 am – 11:30 am	<i>Visualizing tumor heterogeneity in an immune intact and autochthonous mouse model of breast cancer</i> PI: Joshua Snyder, PhD Duke University Medical Center	Joshua Snyder, PhD Duke University Medical Center
11:30 am – 11:50 am	<i>Intravesical dendritic cell targeting with Fc-enhanced CD40 agonistic antibodies induces durable bladder cancer immunity</i> PI: Stylianos Bournazos, PhD Rockefeller University	Christopher Garris, PhD Rockefeller University
11:50 am – 12:10 pm	<i>Precision medicine outside the patient: a humanized mouse model to study cancer immunobiology</i> PI: Ryan Fields, PhD Washington University School of Medicine	Michael Chiorazzi, MD, PhD Yale School of Medicine
12:10 pm – 12:30 pm	<i>Single-Cell RNA sequencing reveals evolution of immune landscape during murine Glioblastoma progression</i> PI: Alain Charest, PhD Beth Israel Deaconess Medical Center	Alain Charest, PhD Beth Israel Deaconess Medical Center
12:30 pm – 12:50 pm	Break (20 minutes)	

Session 8 : Profiling PDX Preclinical Models		
12:50 pm – 1:10 pm	<i>Patient-derived xenograft models for rare pediatric cancers: genomics and therapy response</i> PI: Alejandro Sweet-Cordero, MD University of California San Francisco	Alejandro Sweet-Cordero, MD University of California San Francisco
1:10 pm – 1:30 pm	<i>Molecular and metabolic profiling of brain tumor patients and preclinical models</i> PI: David Nathanson, PhD and Thomas Graeber, PhD University of California Los Angeles	David Nathanson, PhD University of California Los Angeles
1:30 pm – 1:50 pm	<i>Patient-Derived Cell Modeling Neuroendocrine Carcinoma</i> PI: Xuefeng Liu, PhD Ohio State University	Xuefeng Liu, PhD Ohio State University
1:50 pm – 2:10pm	<i>Overcoming resistance to anti-BCMA immunotherapy in myeloma</i> PI: Marta Chesi, PhD Mayo Clinic	Marta Chesi, PhD Mayo Clinic
Session 7: Flash Talks		
2:10 pm – 2:15 pm	<i>Mouse modelling of HPV infection</i> PI: Chien-Fu Hung, PhD, and Richard Roden, PhD The Johns Hopkins University	Pola Olczak The Johns Hopkins University
2:15 pm – 2:20 pm	<i>Engraftment phenotypes of preclinical model systems reveal a subgroup of microenvironment-dependent brain tumors</i> PI: David Nathanson, PhD University of California Los Angeles	Nicholas Bayley University of California Los Angeles
2:20 pm – 2:40 pm	Break (20 minutes)	
Session 9: CIRP – Cancer Imaging Resource Program		
2:40 pm – 2:50 pm	<i>Introduction to CIRP</i>	Charles Manning, PhD Vanderbilt University

<p>2:50 pm – 3:02 pm</p>	<p><i>Employing a Primary Mouse Model of Soft Tissue Sarcoma to Study Combined Radiotherapy with Immune Checkpoint Blockade in a Co-Clinical Trial Mirroring SU2C-SARC032</i> PI: Yvonne Mowery, MD, PhD Duke University</p>	<p>Yvonne Mowery, MD, PhD Duke University</p>
<p>3:02 pm – 3:14 pm</p>	<p><i>Co-clinical phenotyping of tumor heterogeneity to predict response to therapy</i> PI: Kooresh Shoghi, PhD Washington University School of Medicine</p>	<p>Kooresh Shoghi, PhD Washington University School of Medicine</p>
<p>3:14 pm – 3:26 pm</p>	<p><i>Pancreatic Cancer Stroma in GEM Models Characterized by MRI and IHC</i> PI: Rong Zhou, PhD University of Pennsylvania</p>	<p>Rong Zhou, PhD University of Pennsylvania</p>
<p>3:26 pm – 3:38 pm</p>	<p><i>Interrogating the impact of microenvironment on SCNC PCa PDX using MRI</i> PI: Renuka Siriam, PhD University of California San Francisco</p>	<p>Renuka Siriam, PhD University of California San Francisco</p>
<p>3:38 pm – 3:50 pm</p>	<p><i>MRI Imaging of Awake Mice: Current Efforts, Applications, and a simple Holder Design for Bruker Systems</i> PI: Robia Pautler, PhD Baylor College of Medicine</p>	<p>Robia Pautler, PhD Baylor College of Medicine</p>
<p>3:50 pm – 4:02 pm</p>	<p><i>MDACC PREDICT: Development of PET Imaging Biomarkers of Glutamine Metabolism through Co-Clinical Trials</i> PI: Allison Cohen, PhD Vanderbilt University</p>	<p>Allison Cohen, PhD Vanderbilt University</p>
<p>4:02 pm – 4:14 pm</p>	<p><i>Investigating Bone Marrow Environment with MRI</i> PI: Gary Luker, PhD University of Michigan</p>	<p>Gary Luker, PhD University of Michigan</p>

4:14 pm – 4:30 pm	Discussion: Moderated by CIRP
4:30 pm – 5:00 pm	Wrap-up and Closing Discussion