## WELCOME TO

# The Mark Foundation Symposium 2021 Part 1: Metabolism and Cancer

Today's program focuses on the role of metabolism on tumor cell growth and anti-tumor immunity.

Changes in metabolism at the systemic level as well as within the tumor microenvironment can affect both cancer progression and response to treatments. Drugs designed to disrupt aberrant metabolic pathways or exploit metabolic vulnerabilities hold much therapeutic potential for cancer patients. Understanding how rewired metabolic signaling in cancer affects anti-tumor immunity also holds considerable potential for improving cancer immunotherapy. Indeed, emerging research has not only identified further potential targets for therapy, but is yielding insights that may prove fruitful in understanding tumor resistance to therapy, improving diagnosis, and predicting treatment response.

Thank you so much for joining us today, and we look forward to meeting in-person sooner rather than later.



Ryan Schoenfeld, PhD

**Chief Scientific Officer** 



2:00 PM – Opening Remarks

2:05 PM – Lewis C. Cantley, PhD, Weill Cornell Medicine, PI 3-Kinase and Cancer Metabolism.

2:35 PM — Marcia Haigis, PhD, Harvard University, Shaping Metabolism in the Tumor Microenvironments 3:05 PM — Greg Delgoffe, PhD, The University of Pittsburgh, Metabolic Improvements to the Generation of Adoptive Cell Therapies for Cancer

3:35 PM – Panel Discussion

THE MARK FOUNDATION FOR CANCER RESEARCH

#### **SPEAKERS**



#### Lewis Cantley, PhD

Lewis Cantley, PhD, has made significant advances in cancer research stemming from his the discovery of signaling pathway phosphoinositide 3-kinase (PI3K) in 1984. A graduate of West Virginia Wesleyan College (BS, Chemistry, 1971) and Cornell University (PhD, Biophysical Chemistry, 1975), Dr. Cantley has been a professor at Tufts University and Harvard University. He served director of the Beth Israel Deaconess Cancer Center and is currently the Meyer Director of the Sandra and Edward Meyer Cancer Center at Weill Cornell Medicine. The author of more than 400 papers and 50 book chapters, Dr. Cantley has received several prestigious accolades, including membership in the American Academy of Arts and Sciences, the National Academy of Sciences, the Institute of Medicine of the National Academies, and the European life sciences academy EMBO.





#### Marcia C. Haigis, PhD

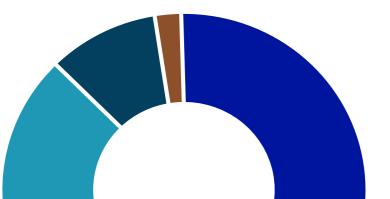
Marcia C. Haigis obtained her PhD in Biochemistry from the University of Wisconsin and performed postdoctoral studies at MIT studying mitochondrial metabolism. In 2006, Dr. Haigis joined the faculty of Harvard Medical School, where she is currently a Professor in the Department of Cell Biology. Dr. Haigis is an active member of the Paul F. Glenn Center for the Biology of Aging, a member of the Ludwig Center at Harvard Medical School and was recently selected for the National Academy of Medicine Emerging Leaders in Health and Medicine Program. Her research aims to identify molecular mechanisms by which mitochondria respond to cellular stress and elucidate how these cellular mechanisms contribute to aging and age-related diseases, such as cancer. The Haigis lab has made key contributions to our understanding of metabolic reprogramming in cancer, including identifying nodes of metabolic vulnerability in the control of fat oxidation in leukemia and metabolic recycling of ammonia to generate amino acids important for tumor growth.

#### Greg M. Delgoffe, PhD

Greg M. Delgoffe, PhD, is an Associate Professor of Immunology in the Tumor Microenvironment Center and Department of Immunology at the University of Pittsburgh and UPMC Hillman Cancer Center. His research focus on the metabolic regulation of immune cell function, with a particular focus on immunoregulation by metabolic changes occurring in cancer. He received his PhD from Johns Hopkins in 2010, completed a postdoc at St. Jude Children's Research Hospital, then started his research group in 2014. He has received numerous awards and has been competitive for grants to support his innovative research program at the intersection of cancer immunotherapy, immune metabolism, and immunoregulation. His passion is to uncover metabolic modulatory strategies improve immunotherapies, bringing their life-saving benefits to all cancer patients.

### THE MARK FOUNDATION BY THE NUMBERS

146 Grants Over \$121 Million Awarded



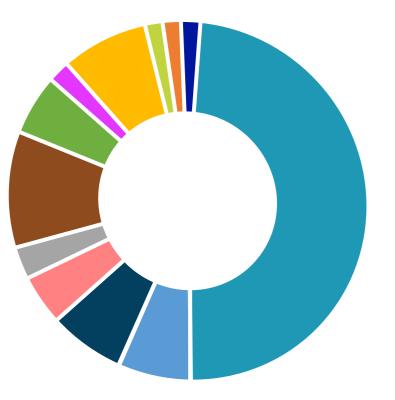


- 18% Technology Innovation
- 23% Basic Research



- 10% Therapeutic Discovery
- 2% Clinical

## Funding By Cancer Type



- 50% All Cancer Types Pancreatic Cancer • 4% • 10% Others
- Leukemia
- **Brain Tumors**
- Melanoma • 2%
- 12% Breast Cancer
- **Colorectal Cancer** • 1%
- **8%** Lung Cancer
- Lymphoma • 1%
- **Ovarian Cancer**
- 1% Prostate Cancer

