PROGRAM

8:30 am – 9:00 am Check-In and Continental Breakfast, and poster set-up

Oral Session I: Predoctoral and Other Students, Leadership Hall

Chairs: Pranjali Kanvinde and Kanwal Mahmood

9:30 am **Makenzy Mull**
Mechano-response via ATP alters calcium signaling in breast epithelial cells with oncogenic KRas mutation (Abstract #13)

9:45 am Discussion

9:50 am **Matthew Eason**
Obscurin-deficient Breast Epithelia Generate Secreted Factors to Prime a Vascular Smooth Muscle Cell-dependent Pre-metastatic Microenvironment (Abstract #7)

10:05 am Discussion

10:10 am **Ryann Bremseth-Vining**
Genetic Ancestry Correlates with Somatic Mutations in Endometrial Cancer (Abstract #2)

10:25 am Discussion

Keynote Lecture, Leadership Hall

10:45 am – 11:00 am **Kevin Cullen, M.D.**, Director of the University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center (UMGCCC).
Update on UMGCCC

11:00 am – 11:10 pm **Toni Antalis, Ph.D.**, Associate Director for Training and Education, UMGCCC, Professor of Physiology
Cancer Biology Research Training

11:10 pm – 12:00 pm **Andrew Ewald, Ph.D.**, Professor of Biomedical Engineering, Professor of Oncology, Co-Leader, Cancer Invasion and Metastasis Program, Sidney Kimmel Comprehensive Cancer Center
"Cellular and molecular mechanisms of breast cancer metastasis."

12:00 pm – 12:15 pm Discussion

Lunch, MSTF Atrium

12:15 pm – 1:15 pm Lunch

Poster Session I and II: Predoctoral and Postdoctoral, Atrium

1:30 pm – 2:30 pm Predoctoral poster presentations

2:30 pm – 3:30 pm Postdoctoral poster presentations

Oral Session II: Predoctoral and Other Students, Leadership Hall

Chairs: Pranjali Kanvinde and Makenzy Mull

3:30 pm **Katarina Chang**
Elevation of Cytoplasmic Calcium Suppresses Microtentacle Formation and Function in Triple Negative Breast Cancer Cells (Abstract #4)

3:45 pm Discussion

3:50 pm **Robert Brown**
ZSCAN4-RNF20 Interactions Regulate Chromatin De-condensation and Pluripotent Stem Cell Gene Expression (Abstract #1)

4:05 pm Discussion

4:10 pm **Nisha Pawar**
Matriptase activates a PAR-2/PI3K/Akt/MMP-9 signaling axis to induce E-cadherin shedding and promote peritoneal dissemination of ovarian cancer spheroids (Abstract #15)

4:25 pm Discussion

Awards Ceremony for the Cancer Biology Retreat, MSTF Atrium

4:30 pm – 5:30 pm Awards Ceremony and Reception with light refreshments
Awards will be given for the best oral presentation in each session and for the best predoctoral and postdoctoral poster presentation.

Keynote Speaker

Dr. Andrew Ewald received his B.S. from Haverford College where he studied Physics and Biophysics. He then received his Ph.D. in Biochemistry and Molecular Biophysics from the California Institute of Technology. He continued his training as a postdoctoral fellow at the University of California, San Francisco focused on epithelial biology and breast cancer. In 2008, he moved to Johns Hopkins University and quickly moved up the ranks to his current positions as a Professor of Biomedical Engineering, Professor of Oncology, and Co-Leader of the Cancer Invasion and Metastasis Program at the Sidney Kimmel Comprehensive Cancer Center.

The Ewald Lab seeks to understand how groups of cells cooperate, compete, and interact to organize tissue architecture and function during development and disease progression. They aim to understand 1) Mechanisms driving growth and development of normal epithelial cells; 2) Cellular strategies driving breast cancer invasion and metastasis; 3) Regulation of cancer progression by the tumor microenvironment.

Dr. Ewald's multidisciplinary background enabled him to assemble and lead teams of scientists, engineers, and clinicians to understand this terrible disease. To increase the impact within breast cancer and extend to additional cancer types, Dr. Ewald founded the Cancer Invasion and Metastasis Research Program (CIM) within the Sidney Kimmel Comprehensive Cancer Center (SKCCC). CIM brings together >40 faculty from the School of Medicine, Bloomberg School of Public Health, and the Whiting School of Engineering with the shared goal of understanding the biological processes driving metastasis and translating these insights to clinical trials to improve patient outcomes. Under Dr. Ewald's co-leadership, CIM maintains active collaboration with the National Cancer Institute (NCI), with cancer patient advocates, and with research foundations, including BCRF, Twisted Pink, Hope Scarves, METAvivor, and the JKTG Foundation for Health and Policy.

To learn more about Dr. Ewald and his research, visit
https://cellbio.jhmi.edu/people/andrew-ewald-ph-d/