AGENDA (EDT)

DAY 1 (September 22, 2022)

12:00-12:05 PM **Welcome**
Natalia Mercer, Ph.D., Division of Cancer Biology, NCI
12:05-12:15 PM **Opening remarks**
Dan Gallahan, Ph.D., Division of Cancer Biology, NCI
12:15-12:20 PM **Keynote speaker introduction**
Wanping Xu, Ph.D., Division of Cancer Biology, NCI
12:20-1:00 PM **Targeting protein post-translational modification pathways for cancer therapies**
Keynote speaker and Chair: Wenyi Wei, Ph.D., Harvard Medical School

Session I: Identification and characterization of PTMs in tumor biology
1:00-1:05 PM Session chair: Junmin Peng, Ph.D., St. Jude

1:05-1:30 PM **Linking epigenetics to metabolism and cancer, one gene at a time**
Raul Mostoslavsky, MD, Ph.D., Harvard Medical School
1:30-1:55 PM **Molecular snapshots of acetyl-CoA metabolism**
Ronen Marmorstein, Ph.D., University of Pennsylvania
1:55-2:20 PM **Proteomics approaches to unlock the hidden proteome**
Danielle L. Swaney, Ph.D., UCSF
2:20-2:45 PM **Intact glycopeptide analysis of human tissue and fluid samples for cancer detection**
Sharon J. Pitteri, Ph.D., Stanford University School of Medicine
2:45-3:00 PM *Break*

Session II: Role of PTMs in tumor biology: tumor cell autonomous mechanism
3:00-3:05 PM Session chair: Tony Hunter, Ph.D., Salk Institute

3:05-3:30 PM **Histidine phosphorylation and cancer**
Tony Hunter, Ph.D., Salk Institute
3:30-3:55 PM **Nutrient regulation of gene expression by O-GlcNAcylation: roles in cancer**
Gerald Hart, Ph.D., University of Georgia
3:55-4:20 PM **Histone H2B ubiquitination in transcription**
Cynthia Wolberger, Ph.D., Johns Hopkins University School of Medicine

4:20-5:10 PM Panel discussion: Day (Moderators: Junmin Peng, Ph.D. and Tony Hunter, Ph.D.)

DAY 2 (September 23, 2022)

12:00-12:05 PM **Welcome**
Ruibai Luo, Ph.D., Division of Cancer Biology, NCI
12:05-12:10 PM **Keynote speaker introduction**
Frank McCormick, Ph.D., FRS, DSc (Hon), UCSF
12:10-12:50 PM **PROTACs, PhosTACs, and Beyond**
Keynote speaker: Craig Crews, Ph.D., Yale University

Session III: Role of PTMs in tumor biology: Tumor Microenvironment mechanism
12:50-12:55 PM Session chair: Cheryl Walker, Ph.D., Baylor College of Medicine

12:55-1:20 PM **The Warburg effect-associated histone lysine L-lactylation: discovery, biochemistry and function**
Yingming Zhao, Ph.D., University of Chicago
1:20-1:45 PM **Interception of the aberrant glycan CA19-9 in pancreatic disease**
Dannie Engle, Ph.D., Salk Institute
1:45-2:10 PM **Sialylated Lewis X (CD15s): the "sweetener" of leukemogenesis**
Robert Sackstein, M.D.,Ph.D., Florida International University
2:10-2:35 PM **Enhanced mass-spectrometry-based approach for in-depth profiling of the cancer ECM**
Alexandra Naba, Ph.D., University of Illinois at Chicago
2:35-2:50 PM *Break*

Session IV: Role of PTMs in therapy and resistance to therapy
2:50-2:55 PM Session chair: Rosalie Sears, Ph.D., Oregon Health and Science University

2:55-3:20 PM **Pharmacological inhibition of SUMOylation and its role in activating anti-tumor immunity**
Yuan Chen, Ph.D., UCSD
3:20-3:45 PM **Roles for lysine methylation in epigenetic regulation and cancer biology**
Or Gozani, M.D., Ph.D., Stanford University
3:45-4:10 PM **Discovering and evaluating vulnerabilities to PRMT inhibitors in different cancer settings**
Mark Bedford, Ph.D., MD Anderson

4:10-5:00 PM Panel discussion: Day 2 (Moderator: Wenyi Wei, Ph.D., Harvard Medical School)

5:00-5:10 PM **Closing remarks**
Wenyi Wei, Ph.D., Harvard Medical School
Wanping Xu, Ph.D., Division of Cancer Biology, NCI