CONFERENCE PROGRAM

Sunday, February 28, 2016

6:00 p.m.-7:00 p.m. Opening Keynote Session

Plaza D-F

Session Chair: Karen E. Knudsen,

Thomas Jefferson University Kimmel Cancer Center, Philadelphia, PA

6:00 p.m.-6:05 p.m. Welcome

6:05 p.m.-7:00 p.m. Keynote Address: New Insights into Quiescence Control

David M. Livingston, Dana-Farber Cancer Institute, Boston, MA

7:00 p.m.-9:00 p.m. Opening Reception

Plaza G-H

Monday, February 29, 2016

7:30 a.m.-8:30 a.m. Breakfast and Roundtable Discussions

Plaza G-H

8:30 a.m.-10:30 a.m. Plenary Session 1 G1 Advances: Novel Insights into G1 CDK/cyclins

Plaza D-F

Session Chair: Manuel Serrano,

Spanish National Cancer Center (CNIO), Madrid, Spain

8:30 a.m.-9:00 a.m. Neomorphic functions of cyclin D1 during neoplastic development

J. Alan Diehl, Medical University of South Carolina, Charleston, SC

9:00 a.m.-9:30 a.m. Identification of cell cycle-regulating microRNAs

Peter Sicinski, Dana-Farber Cancer Institute, Boston, MA

9:30 a.m.-10:00 a.m. The Targeting of CDK4/6: Have we gone full circle?

Gary K. Schwartz, Columbia University Irving Comprehensive Cancer Center,

New York, NY

10:00 a.m.-10:15 a.m. Therapeutic targeting of cdk4 in bladder cancer

Jesus Paramio, Biomedical Research Institute University Hospital, Madrid, Spain

10:15 a.m.-10:30 a.m. Targeting the Brk:p27:cdk4 axis in Breast Cancer

Stacy Blain, SUNY Downstate Medical Center, Brooklyn, NY

10:30 a.m.-11:00 a.m. Break

Plaza D-F Lobby

11:00 a.m.-1:00 p.m. Plenary Session 2 Targeting CDK/cyclins: Hormone Dependent Cancers and Beyond

Plaza D-F

Session Chair: Helen Piwnica-Worms,

UT MD Anderson Cancer Center, Houston, TX

11:00 a.m.-11:30 a.m. Title to be announced

Geoffrey I. Shapiro, Dana-Farber Cancer Institute, Boston, MA

11:30 a.m.-12:00 p.m. Co-targeting cell cycle and androgen signaling to personalize therapy for hormone

dependent prostate cancer

Maha H. Hussain, University of Michigan Medical School, Ann Arbor, MI

12:00 p.m.-12:30 p.m. Targeting the cyclin D-CDK4/6 pathway for cancer therapy

Robert T. Abraham, Pfizer Pharmaceuticals, San Diego, CA

(Not eligible for CME credit)

12:30 p.m.-1:00 p.m. Reprogramming human cancer cells in CDK4/6 inhibitor therapy

Selina Chen-Kiang, Weill Cornell Medical College of Cornell University, New York, NY

1:00 p.m.-3:30 p.m. Poster Session A and Lunch

Plaza G-H

3:30 p.m.-5:30 p.m. Plenary Session 3 Getting out of Cycle: GO and Senescence

Plaza D-F

Session Chair: Charles J. Sherr,

St. Jude Children's Research Hospital, Memphis, TN

3:30 p.m.-4:00 p.m. A drug delivery method selective for senescent cells

Manuel Serrano, Spanish National Cancer Center (CNIO), Madrid, Spain

4:00 p.m.-4:30 p.m. The senescence response – yin and yang

Judith Campisi, Buck Institute for Research on Aging, Novato, CA

4:30 p.m.-5:00 p.m. Transient CDK4/6 inhibition protects hematopoietic progenitors from chemotherapy-

induced exhaustion

Norman E. Sharpless, UNC Lineberger Comprehensive Cancer Center, Chapel Hill, NC

5:00 p.m.-5:15 p.m. Extended inhibition of CDK4/6 inhibits mTORC1 signaling and induces therapeutic

senescence in vemurafenib resistant melanoma

Akihiro Yoshida, Medical University of South Carolina, Charleston, SC

5:15 p.m.-5:30 p.m. Characterizing the sequence of cell-cycle events during proliferation and quiescence

Sabrina Spencer, University of Colorado-Boulder, Boulder, CO

Tuesday, March 1, 2016

7:30 a.m.-8:30 a.m. Breakfast and Roundtable Discussions

Plaza G-H

8:30 a.m.-10:30 a.m. Plenary Session 4 Rb Bench to Bedside: Novel Functions and Clinical Implications

Plaza D-F

Session Chair: Jacqueline A. Lees,

MIT Koch Institute for Integrative Cancer Research, Cambridge, MA

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8:30 a.m.-9:00 a.m. Targeting the cell cycle in pediatric solid tumors Michael A. Dyer, St. Jude Children's Research Hospital, Memphis, TN 9:00 a.m.-9:30 a.m. Modeling RB mutant human cancers in mice to identify novel therapeutic targets Julien Sage, Stanford University School of Medicine, Stanford, CA 9:30 a.m.-10:00 a.m. Interplay of the RB axis with hormone signaling: Mechanisms and novel therapeutic strategies Karen E. Knudsen, Thomas Jefferson University Kimmel Cancer Center, Philadelphia, PA 10:00 a.m.-10:15 a.m. RB localizes to DNA double strand breaks and promotes DNA end resection and homologous recombination through the recruitment of SWI/SNF complex Renier Velez-Cruz, The University of Texas MD Anderson Cancer Center, Smithville, TX 10:15 a.m.-10:30 a.m. Sox2 functions as a critical tumor suppressor in Rb loss initiated tumors Michael Kareta, Stanford University, Stanford, CA 10:30 a.m.-11:00 a.m. **Break** Plaza D-F Lobby 11:00 a.m.-1:00 p.m. Plenary Session 5 E2F Family Functions: Alterations and Consequences Plaza D-F Session Chair: Peter Sicinski, Dana-Farber Cancer Institute, Boston, MA 11:00 a.m.-11:30 a.m. The consequences of pRb inactivation: insights from a proteomic analysis of Rb loss Nicholas Dyson, Massachusetts General Hospital Cancer Center, Charlestown, MA 11:30 a.m.-12:00 p.m. Breaking the balance between E2F Activators and Atypical Repressors: Consequences to Development and Cancer Gustavo W. Leone, Ohio State University Comprehensive Cancer Center, Columbus, OH 12:00 p.m.-12:30 p.m. Title to be announced Jacqueline A. Lees, MIT Koch Institute for Integrative Cancer Research, Cambridge, MA 12:30 p.m.-12:45 p.m. Recruitment of Pontin/Reptin by E2F1 amplifies E2F transcriptional response during cancer progression Patrick Viatour, Children's Hospital of Philadelphia, Philadelphia, PA 12:45 p.m.-1:00 p.m. RB loss elicits extensive re-programming of AR and E2F1 in prostate cancer Christopher McNair, Thomas Jefferson University, Philadelphia, PA 1:00 p.m.-3:00 p.m. Lunch (on own)

3:00 p.m.-5:00 p.m. Plenary Session 6 Replication Stress and DNA Damage Response

Plaza D-F

Session Chair: Caroline Dive,

CRUK Manchester Institute, Manchester, UK

3:00 p.m.-3:30 p.m. Functional analysis of mammalian Polθ reveals its role in double-strand break repair

Agnel J. Sfeir, New York University Langone Medical Center, New York, NY

3:30 p.m.-4:00 p.m. Mechanisms of alternative telomere recombination

Roger A. Greenberg, University of Pennsylvania, Philadelphia, PA

4:00 p.m.-4:30p.m. Exploiting CDK2-driven replication stress to repurpose cancer chemotherapy

Bruce Clurman, Fred Hutchinson Cancer Research Center, Seattle, WA

4:30 p.m.-4:45 p.m. c-MYC preserves genomic integrity during DNA replication: a paradigm shift of c-MYC

Alpana Kumari, Augusta University, Augusta, GA

4:45 p.m.-5:00 p.m. Exploiting the G2-M cell cycle checkpoint dependency in small cell lung cancer (SCLC)

using pharmacological inhibitors of CHK1 and WEE1

Triparna Sen, UT MD Anderson Cancer Center, Houston, TX

5:00 p.m.-5:15 p.m. Break

Plaza D-F Lobby

5:15 p.m.-6:15 p.m. Keynote Address

Plaza D-F

Session Chair: J. Alan Diehl,

Medical University of South Carolina, Charleston, SC

Mitogenic Signaling and the RB/p53 Network

Charles J. Sherr, St. Jude Children's Research Hospital, Memphis, TN

6:15 p.m.-8:30 p.m. Poster Session B and Reception

Plaza G-H

Wednesday, March 2, 2016

7:30 a.m.-8:30 a.m. Breakfast and Roundtable Discussions

Plaza G

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8:30 a.m.-10:45 a.m. Plenary Session 7 Managing G2/M Control Plaza D-F Session Chair: J. Alan Diehl, Medical University of South Carolina, Charleston, SC 8:30 a.m.-9:00 a.m. Circulating tumour cell derived explant models to study the effects of cell cycle targeted drugs in small cell lung cancer Caroline Dive, CRUK Manchester Institute, Manchester, UK 9:00 a.m.-9:30 a.m. Cyclin A2 controls genome stability through CDK-dependent and independent mechanisms Jan M. Van Deursen, Mayo Clinic, Rochester, MN 9:30 a.m.-10:00 a.m. Checkpoint signaling and targeting in cancer cells Helen Piwnica-Worms, UT MD Anderson Cancer Center, Houston, TX 10:00 a.m.-10:15 a.m. APC/CCdh1 maintains primordial follicles, germinal vesicle arrest and ensures balanced segregation of chromosomes by enabling removal of Shugoshin-2 from chromosomes arms Ahmed Rattani, Mount Auburn Hospital, Harvard Medical School, Cambridge, MA 10:15 a.m.-10:30 a.m. Genome-wide CRISPR-Cas9 screens reveal loss of redundancy between PKMYT1 and WEE1 in patient-derived Glioblastoma stem-like cells Patrick Paddison, Fred Hutchinson Cancer Research Center, Seattle, WA 10:30 a.m.-10:45 a.m. Germ-line mutations in CDC20 result in familial cancers via deregulation of the cell cycle Ester Castellsague, McGill University, Montreal, Canada 10:45 a.m.-11:15 a.m. **Break** Plaza D-F Lobby 11:15 a.m.-1:00 p.m. Plenary Session 8 Derailed by Infection: Viral-mediated Cell Cycle Dysfunction Plaza D-F Session Chair: Julien Sage, Stanford University School of Medicine, Stanford, CA 11:15 a.m.-11:45 a.m. Merkel cell polyomavirus Small T antigen recruits MYCL to the TRRAP-p400 complex to promote oncogenesis and re-programming James A. DeCaprio, Dana-Farber Cancer Institute, Boston, MA 11:45 a.m.-12:15 p.m. Title to be announced Maura Gillison, Ohio State University Comprehensive Cancer Center, Columbus, OH 12:15 p.m.-12:45 p.m. Perturbation of host cellular regulatory networks by human papillomaviruses Karl Munger, Tufts University School of Medicine, Boston, MA 12:45 p.m.-1:00 p.m. Real-time in vivo image-guided cell-cycle perturbation to increase tumor chemosensitivity Shuya Yano, Okayama University, Okayama, Japan (Not eligible for CME credit) 1:00 p.m.-1:15p.m. **Closing Remarks and Departure**

Plaza D-F