Affordable Cancer Technologies Program Principal Investigators Meeting Program Agenda

May 23-24, 2019

Thursday, May 23, 2019

9:00 am **Investigator Arrival** 9:00 am - 9:30 am Coffee 9:30 am - 9:45 am **Opening Remarks & Meeting Overview** Lisa Stevens, PhD Deputy Director Center for Global Health, NCI Paul Pearlman, PhD Lead, Global Health Technology Center for Global Health, NCI 9:45 am - 11:05 am Investigator Presentations I - Cervical Cancer Technologies: HPV **Diagnostics** Moderators: Mark Schiffman M.D., M.P.H Division of Cancer Epidemiology & Genetics, NCI and Christos Patriotis, PhD, Division of Cancer Prevention, NCI Improving specificity of HPV screen-and-treat in South Africa Louise Kuhn, PhD, Columbia University Development and clinical validation of a multi-type HPV E6/E7 oncoprotein test for cervical cancer screening and triage in low- and middle-income countries Rolando Herrero, MD, PhD, International Agency for Research on Cancer Cytology-Free POC Cervical Cancer Diagnostics for Global Health Jennifer Smith, PhD, MPH, University of North Carolina at Chapel Hill Rapid Point of Care Detection of HPV-Associated Malignancies Karen Anderson, MD, PhD, University of Arizona Dean Brenner, MD, University of Michigan 11:05 am - 11:25 am **Break** 11:25 am - 12:25 pm Investigator Presentations II - Cervical Cancer Technologies: Ablative Therapies for Pre-Invasive Cervical Dysplasia Moderator: Vikrant Sahasrabuddhe, MBBS, MPH, DrPH, Division of Cancer Prevention, and Ted Trimble MPH, M.D, Office of the Director, NCI Performance, safety, and efficacy of a new cryotherapy device for cervical dysplasia in low and middle-income countries Jean Anderson, MD, Johns Hopkins University CryoPen: An Innovative Treatment for Cervical Precancer in Low-Resource Settina Miriam Cremer, MD, MPH, Cleveland Clinic Development, field testing and evaluation of the efficacy of a hand-held, portable and affordable thermo-coagulator to prevent cervical cancer in low- and middleincome countries Partha Basu, MD, International Agency for Research on Cancer

1:25 pm – 1:40 pm NIBIB's Point of Care Technology Research Network (POCTRN)

Lunch

12:25 pm - 1:25 pm

Tiffany Bailey Lash, PhD,

National Institute of Biomedical Imaging and Bioengineering

1:40 pm - 2:20 pm Investigator Presentations III - Oral Cancer Technologies

Moderator: Anil Chaturvedi, Ph.D. Cancer Epidemiology

&Genetics, NCI

Low-cost Mobile Oral Cancer Screening for Low Resource Setting

Rongguang Liang, PhD, University of Arizona

Low-cost Enabling Technology for Image-guided Photodynamic Therapy (PDT)

of Oral Cancers

Tayyaba Hasan, PhD, Massachusetts General Hospital Jonathan Celli, PhD, University of Massachusetts Boston

2:20 pm – 2:45 pm **Break** (Groups set up for technology showcase.)

2:45 pm – 5:00 pm **Technologies Showcase**

Room TE Seminar 110

5:00 pm Adjourn

5:30 pm **Networking Opportunity**

Old Town Pour House (212 Ellington Blvd, Gaithersburg, MD 20878) Meals and refreshments are the responsibility of each participant.

Friday, May 24, 2019

8:15 am Investigator Arrival

8:15 am – 8:45 am **Coffee**

8:45 am – 9:25 am Investigator Presentations IV – Liver Cancer Technologies

Moderator: Xin Wei Wang, PhD, Center for Cancer Research, NCI

Smartphone Enabled Point-of-Care Detection of Serum Markers of Liver Cancer

Ashutosh Chilkoti, PhD, Duke University Nelson Chao, MD, Duke University

Field-deployable platform for prognostic hepatic cancer screening in low-

resource settings

Courtney Scaife, MD, University of Utah Marc Porter, PhD, University of Utah

9:25 am – 10:05 am Investigator Presentations V – In Vitro Assays (1)

Moderator: Rebecca Liddle Huppi Ph.D. Office of HIV and AIDS Malignancy, NCI

Early Stage Diagnosis of Kaposi's Sarcoma in Limited Resource Settings using

KS-Detect

David Erickson, PhD, Cornell University

Jeffrey Martin, MD, University of California San Francisco

Smartphone for molecular cancer diagnostic in Africa

Ralph Weissleder, MD, PhD, Massachusetts General Hospital

Bruce Chabner, MD, Massachusetts General Hospital

10:05 – 10:20 USAID Support for Global Health Technology Research

10:20 am – 10:40 am **Break**

10:40 am - 11:40 am Investigator Presentations VI - In Vitro Assays (2)

Moderator: Brian Sorg, PhD, Cancer Diagnosis Program, NCI

Point of care, real-time urine metabolomics test to diagnose colorectal cancers and polyps in low- and middle-income countries

T. Peter Kingham, MD, Memorial Sloan Kettering Cancer Center

Olusegun Alatise, Obafemi Awolowo University

Facile screening for esophageal cancer in LMICs Stephen Meltzer, MD, Johns Hopkins University Jeff Wang, PhD, Johns Hopkins University

Digital PCR quantification of BCR-ABL for CML diagnosis and monitoring in a LMICs setting

Daniel Chiu, PhD, University of Washington

12:00 pm - 2:00 pm

Lunch Roundtable Discussions

- 1. Global Cancer Research Training
- 2. Implementation at the Country Level and Taking Interventions to Scale
- 3. ACT Program Challenges and Successes

2:00 pm - 2:15 pm

NCI SBIR/STTR Funding Opportunities

Ming Zhao, PhD Program Director

Small Business Innovation Research Development Center, NCI

2:15 pm - 2:55 pm

Investigator Presentations VII - Diagnostic Imaging

Moderator: Houston Baker, PhD and Pushpa Tandon, PhD, Division of Cancer Treatment and Diagnosis, NCI

Point-of-Care Diagnostic Tools to Improve Global Cervical Cancer Programs Rebecca Richards-Kortum, PhD, Rice University Kathleen Schmeler, MD, University of Texas MD Anderson Cancer Center

Low Cost Automated Ultrasound for Breast Cancer Detection and Diagnosis Leah Eshraghi, MPH Susan Love Research Foundation Deepak Mittal MBA, MS of xtLytics LLC

2:55- pm - 3:35 pm

Investigator Presentations VIII - Radiotherapy

Moderator: Bhadrasain Vikram, M.D Radiation Research program, NCI

The Radiation Planning Assistant (RPA) for Radiation Therapy Planning in Lowand Middle-Income Countries

Laurence Court, PhD, University of Texas MD Anderson Cancer Center Beth Beadle, MD, PhD, Stanford University

A cost-effective radiation treatment delivery system for the low- and middle-income countries

Eric Ford, PhD, University of Washington

3:35 pm - 3:40 pm

Closing Remarks & Adjourn

Paul Pearlman