Overview:

This meeting marks the half waypoint for this cycle of the EDRN. Presentation by the EDRN PIs will provide NCI Program Staff with updates on progress made by individual researchers and by the EDRN as a collaborative network. This information will help NCI evaluate the network, plan for its future, and address questions such as: is this the optimal structure and what changes, if any, could be made to improve its productivity?

Wednesday September 5, 2018

7:00 a.m. – 8:00 a.m. Riverfront Foyer	Sign-In and Continental Breakfast
8:00 a.m. – 8:10 a.m. Riverfront Room	Opening of Steering Committee Meeting and Approval of Minutes for September 2017 Steering Committee Meeting Joshua LaBaer, M.D., Ph.D., Arizona State University/The Biodesign Institute
8:10 a.m 8:30 a.m.	NCI Updates and Expectations for the Meeting Sudhir Srivastava, Ph.D., M.P.H., National Cancer Institute
8:30 a.m 3:00 p.m.	Collaborative Group Meetings (Concurrent

Each BDL, CVC, BRL and the DMCC will present the progress made on their individual projects including set aside projects that are not part of a larger team project. The final three slides for each presentation should be

Sessions)

- Research highlights & list of publications
- Challenges and help needed to complete their projects
- Outlook and plans for the future
- Patents, Licenses, and International Collaborations

The lead PI of each team project or the PI of a CORE fund supported trial or biospecimen collection will present the progress of that project. The final three slides for each presentation should be

- Research highlights & list of publications
- Challenges and help needed to complete their projects
- Outlook and plans for the future
- Patents, Licenses, and International Collaborations

Each presentation will be approximately 15 minutes followed by 10 minutes for discussion. At the end of the session there will be a general discussion and identification of three or four critical questions for each type of cancer.

Description

Wednesday September 5, 2018 (Continued)

3:00 p.m. – 3:30 p.m. Riverfront Room	Breast Tumor Evolution Kornelia Polyak, MD., Ph.D., Dana-Farber Cancer Institute
3:30 p.m. – 4:00 p.m.	Activity-based Biomarkers for Noninvasive Cancer Detection Sangeeta Bhatia, M.D., Ph.D., Massachusetts Institute of Technology
4:00 p.m. – 4:20 p.m.	Data Management and Coordinating Center Ziding Feng, Ph.D., Mark Thornquist, Ph.D., and Margaret Pepe, Ph.D., Fred Hutchinson Cancer Research Center
4:20 p.m. – 4:40 p.m.	National Institute of Standards & Technology Anne Plant, Ph.D., National Institute of Standards & Technology
4:40 p.m. – 5:00 p.m.	<u>Informatics Center</u> Dan Crichton, M.S., NASA Jet Propulsion

Laboratory

5:00 p.m. – 5:20 p.m.

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Pacific Northwest National Laboratory: Use of Novel Proteomic Approaches for Cancer Biomarker Identification and Verification Tao Liu, Ph.D., and Karin Rodland, Ph.D., Pacific Northwest National Laboratory

5:20 p.m. - 6:30 p.m.

Riverfront Room

EDRN Leadership Meeting

- o EDRN Chair and Co-Chair
- o Collaborative Group Chairs and Co-Chairs

Based on presentations and discussions of the Collaborative Group Meetings, the Collaborative Group Chairs and Co-Chairs will briefly discuss 3 or 4 critical questions for each cancer. These questions will be presented to the entire Steering Committee Meeting on Thursday.

Adjourn for the Day 6:30 p.m.

8:30 a.m. – 3:00 p.m. <i>Riverfront Room</i>	Gastrointestinal Cancers Collaborative Group Meeting
	Pancreatic Cancer
8:30 a.m. – 8:45 a.m.	 New Plasma Biomarker sTRA Blinded Validation Performance Exceeds the Diagnostic Accuracy of CA19-9 in Pancreatic Cancer Brian Haab, Ph.D., Van Andel Research Institute Peter Allen, M.D., Memorial Sloan Kettering Cancer Center Randall Brand, M.D., University of Pittsburgh
8:45 a.m. – 8:55 a.m.	Q&A
8:55 a.m. – 9:10 a.m.	Current Status of Mucins and Associated Marker(s) for Early Detection and Risk Stratification of Benign and Malignant Pancreatic Diseases: Step Towards Clinical Application Randal Brand, M.D., University of Pittsburgh Surinder Batra, Ph.D., University of Nebraska Medical Center
9:10 a.m. – 9:20 a.m.	Q&A
9:20 a.m. – 9:35 a.m.	Integrative Biomarker Analysis for Early Detection of Pancreatic Cancer Anirban Maitra, M.B.B.S., The University of Texas MD Anderson Cancer Center
9:35 a.m. – 9:45 a.m.	Q&A
9:45 a.m. – 10:00 a.m.	Team Project 1: <u>Bake-off Study of Investigators</u> from the Alliance of Pancreatic Cancer Consortia Aatur Singhi, M.D., Ph.D., University of Pittsburgh
10:00 a.m. – 10:10 a.m.	Q&A

Wednesday September 5, 2018

Gastrointestinal Cancers Collaborative Group Meeting (Continued)

Pancreatic Cancer (Continued)

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10:10 a.m. – 10:25 a.m. Riverfront Room	 Team Project 2: <u>Validating Multiple EDRN PDAC</u> <u>Biomarkers on a Common Testing Set-</u> <u>Preliminary Findings</u> Randall Brand, M.D., University of Pittsburgh Ying Huang, Ph.D., Fred Hutchinson Cancer Research Center
10:25 a.m. – 10:35 a.m.	Q&A
10:35 a.m. – 10:45 a.m.	Nanoplasmonic Quantification of Tumor-derived Circulating Extracellular Vesicles Associate Member: Jia Fan, Ph.D., Arizona State University/The Biodesign Institute
10:45 a.m. – 10:50 a.m.	Q&A
	Colon and Esophageal Cancers
10:50 a.m. – 11:05 a.m.	 Biomarkers for Early Detection of GI Neoplasias Sanford Markowitz, M.D., Ph.D., Case Western Reserve University William Grady, M.D., Fred Hutchinson Cancer Research Center Kishore Guda, Ph.D., Case Western Reserve University
11:05 a.m. – 11:15 a.m.	Q&A
11:15 a.m. – 11:30 a.m.	 ctDNA for Screening for and Monitoring of CRC Robert Schoen, M.D., M.P.H., University of Pittsburgh Kenneth Kinzler, Ph.D., Johns Hopkins University School of Medicine
11:30 a.m. – 11:40 a.m.	Q&A

Wednesday September 5, 2018

Gastrointestinal Cancers Collaborative Group Meeting (Continued)

Colon and Esophageal Cancers (Continued)

11:40 a.m. – 11:55 a.m. <u>Validation of Colon Cancer Biomarkers</u>
Riverfront Room <u>Validation of Colon Cancer Biomarkers</u>
Dean Brenner, M.D., University of Michigan

11:55 a.m. – 12:05 p.m. Q&A

12:05 p.m. – 12:25 p.m. Validation of Early Detection Biomarkers for CRC

& Team Project 1: Testing Colon Cancer Markers in FIT-Negative and FIT-Positive Colon Adenomas

and Cancers

Paul Lampe, Ph.D., Fred Hutchinson Cancer

Research Center

12:25 p.m. – 12:35 p.m. Q&A

12:35 p.m. - 1:35 p.m. Lunch (On Your Own)

1:35 p.m. – 1:50 p.m. Team Project 2: Evaluation of ctDNA and

Aberrantly Methylated DNA Markers in a Common, Plasma-based Reference Set Robert Schoen, M.D., M.P.H., University of

Pittsburgh

1:50 p.m. – 2:00 p.m. Q&A

2:00 p.m. – 2:50 p.m. Discussion

o Robert Schoen, M.D., M.P.H., University of

Pittsburgh

o Brian Haab, Ph.D., Van Andel Research

Institute

2:50 p.m. – 3:00 p.m. Election of New Chairs/Co-chairs for

Collaborative Group

8:30 a.m. – 3:00 p.m. Somerset Room	Prostate Cancer and Urological Cancers Collaborative Group
8:30 a.m. – 8:45 a.m.	 Development of Protein Biomarkers in Post-DRE Urine for Use in Liquid Biopsy of Prostate Cancer: An Update O. John Semmes, Ph.D., Eastern Virginia
8:45 a.m. – 8:55 a.m.	Q&A
8:55 a.m. – 9:10 a.m.	 Leveraging the Transcriptome for the Early Detection of Prostate Cancer Arul Chinnaiyan, M.D., Ph.D., University of Michigan Scott Tomlins, M.D., Ph.D., University of Michigan
9:10 a.m 9:20 a.m.	Q&A
9:20 a.m. – 9:35 a.m.	High Throughput Analysis of Prostate Samples Reveals Protein Modifications Associated with Cancer Aggressiveness Hui Zhang, Ph.D., Johns Hopkins University School of Medicine Ruedi Aebersold, Ph.D., Institute for Molecular Systems Biology
9:35 a.m. – 9:45 a.m.	Q&A
9:45 a.m. – 10:00 a.m.	Enhancing Prostate Cancer Detection from RNA profiling to Molecular Imaging Martin Sanda, M.D., Emory University
10:00 a.m. – 10:10 a.m.	Q&A

Wednesday September 5, 2018

Prostate Cancer and Urological Cancers Collaborative Group (Continued)

10:10 a.m. – 10:25 a.m. Somerset Room	Enhancing Prostate Cancer Biomarkers for African American Men Shiv Srivastava, Ph.D., Center for Prostate Disease Research, Uniformed Services University of the Health Sciences and the Walter Reed National Military Medical Center
10:25 a.m. – 10:35 a.m.	Q&A
10:35 a.m. – 10:50 a.m.	Identification of Candidate Biomarkers for Early Detection of Aggressive Prostate Cancer Using Targeted Proteomics Tao Liu, Ph.D., and Karin Rodland, Ph.D., Pacific Northwest National Laboratory
10:50 a.m. – 11:00 a.m.	Q&A
11:00 a.m. – 11:15 a.m.	The EDRN BRL at Johns Hopkins: 2018 Research Project Updates Dan Chan, Ph.D., Johns Hopkins Medical Institutions
11:15 a.m. – 11:25 a.m.	Q&A
11:25 a.m. – 11:40 a.m.	Restriction Spectrum Imaging to Improve Prostate MRI Associate Member: Michael Liss, M.D., M.A.S., University of Texas Health Science Center at San Antonio
11:40 a.m. – 11:50 a.m.	Q&A
11:50 a.m. – 12:05 p.m.	Team Project 1: <u>The Tissue Upgrading Study</u> Robin Leach, Ph.D., University of Texas Health Science Center at San Antonio
12:05 p.m. – 12:15 p.m.	Q&A

Wednesday September 5, 2018

Prostate Cancer and Urological Cancers Collaborative Group (Continued)

12:15 p.m. – 12:30 p.m. Team Project 2: <u>EDRN Prostate MRI Biomarker</u>
Somerset Room Study, Reference Set and Longitudinal Testing of

Validated Biomarkers

John T. Wei, M.D., University of Michigan

12:30 p.m. – 12:40 p.m. Q&A

12:40 p.m. – 1:40 p.m. Lunch (On Your Own)

1:40 p.m. – 2:50 p.m. Discussion

Martin Sanda, M.D., Emory University
O. John Semmes, Ph.D., Eastern Virginia

Medical School

2:50 p.m. - 3:00 p.m. Election of New Chairs/Co-chairs for

Collaborative Group

8:30 a.m. – 3:00 p.m. <i>Charles A Room</i>	Lung and Upper Aerodigestive Cancers Collaborative Group
8:30 a.m. – 8:45 a.m.	Integration of Biomarker Signatures from Peripheral Blood for Diagnosis, Prognosis, Remission and Recurrence of Lung Cancer Louis Showe, Ph.D., The Wistar Institute
8:45 a.m. – 8:55 a.m.	Q&A
8:55 a.m. – 9:10 a.m.	 The Boston University-UCLA Lung Cancer Biomarker Development Lab Steve Dubinett, M.D., University of California Los Angeles David Elashoff, Ph.D., University of California Los Angeles Marc Lenburg, Ph.D., Boston University Avrum Spira, M.D., M.Sc., Boston University
9:10 a.m. – 9:20 a.m.	Q&A
9:20 a.m. – 9:35 a.m.	Can Mesothelioma Be Diagnosed with Blood Immunoprofiles? Haining Yang, Ph.D., University of Hawaii Cancer Center
9:35 a.m. – 9:45 a.m.	Q&A
9:45 a.m. – 10:00 a.m.	 DNA Methylation Based Detection of Cancer Jeff Tza-Huei Wang, Ph.D., Johns Hopkins University James Herman, M.D., University of Pittsburgh Cancer Institute
10:00 a.m. – 10:10 a.m.	Q&A

Wednesday September 5, 2018

Lung and Upper Aerodigestive Cancers Collaborative Group (Continued)

10:10 a.m. – 10:25 a.m. Charles A Room	Moffitt's Imaging Biomarker Validation Center (MIBVAC): Radiomics for Early Detection of Lung Cancer Matthew Schabath, Ph.D., H. Lee Moffitt Cancer Center and Research Institute, Inc.
10:25 a.m. – 10:35 a.m.	Q&A
10:35 a.m. – 10:50 a.m.	Validation of Biomarkers Assessing the Risk of Developing Lung Cancer Pierre Massion, M.D., Vanderbilt-Ingram Cancer Center
10:50 a.m. – 11:00 a.m.	Q&A
11:00 a.m. – 11:15 a.m.	University of Maryland Baltimore Biomarker Reference Laboratory miRNA Expression in Non- Small Cell Lung Cancer as an Early Detection Biomarker Sanford Stass, M.D., University of Maryland School of Medicine
11:15 a.m. – 11:25 a.m.	Q&A
11:25 a.m. – 11:40 a.m.	Team Project 1: <u>Biomarkers for Early Detection of Mesothelioma</u> Haining Yang, Ph.D., University of Hawaii Cancer Center
11:40 a.m. – 11:50 a.m.	Q&A

Wednesday September 5, 2018

Lung and Upper Aerodigestive Cancers Collaborative Group (Continued)

11:50 a.m. – 12:05 p.m. Team Project 2b: <u>Validating an Integrated</u>
Charles A Room Biomarker and Imaging Approach in the

Evaluation of Indeterminate Pulmonary Nodules

(IPNs)

Eric Grogan, M.D., Vanderbilt Medical Center

12:05 p.m. – 12:15 p.m. Q&A

12:15 p.m. - 1:15 p.m. Lunch (On Your Own)

1:15 p.m. – 2:50 p.m. Discussion

o Pierre Massion, M.D., Vanderbilt-Ingram

Cancer Center

o Haining Yang, Ph.D., University of Hawaii

Cancer Center

2:50 p.m. - 3:00 p.m. Election of New Chairs/Co-chairs for

Collaborative Group

8:30 a.m. – 3:00 p.m. <i>Charles B Room</i>	Breast and Gynecological Cancers Collaborative Group
	Breast Cancer
8:30 a.m. – 8:40 a.m.	A Unique Approach Combining Avatar Mice and Targeted Mass Spectrometry to Identify Blood Biomarkers for Early Detection of Breast Cancer Michael Lewis, Ph.D., Baylor College of Medicine
8:40 a.m. – 8:50 a.m.	Q&A
8:50 a.m. – 9:00 a.m.	Improving Early Detection of Breast Cancer with Auto-Anti-Glycoprotein Antibodies Joshua LaBaer, M.D., Ph.D., Arizona State University/The Biodesign Institute
9:00 a.m. – 9:10 a.m.	Q&A
9:10 a.m. – 9:20 a.m.	Resources for Diagnosing Breast Cancer O Jeffrey Marks, Ph.D., Duke University Medical Center O Cha-Mei Tang, Sc.D., Creaty MicroTech Inc.
9:20 a.m. – 9:30 a.m.	Q&A
9:30 a.m. – 9:40 a.m.	Phase 3 Validation of Early Detection Biomarkers for ER+ Breast Cancer Christopher Li, M.D., Ph.D., Fred Hutchinson Cancer Research Center
9:40 a.m. – 9:50 a.m.	Q&A
9:50 a.m. – 10:00 a.m.	H. Lee Moffitt Cancer Center CVC Breast Imaging Progress John Heine, Ph.D., H. Lee Moffitt Cancer Center and Research Institute, Inc.
10:00 a.m. – 10:10 a.m.	Q&A

Wednesday September 5, 2018

Breast and Gynecological Cancers Collaborative Group (Continued)

Breast Cancer (Continued)

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10:10 a.m. – 10:20 a.m. Charles B Room	Team Project 1: <u>Identification of Biomarkers for Non-triple Negative Breast Cancer</u> Christopher Li, M.D., Ph.D., Fred Hutchinson Cancer Research Center
10:20 a.m. – 10:30 a.m.	Q&A
10:30 a.m. – 10:40 a.m.	Team Project 2: <u>Imaging Plus Biomarkers for the Diagnosis of Breast Cancer</u> Jeffrey Marks, Ph.D., Duke University Medical Center
10:40 a.m. – 10:50 a.m.	Q&A
10:50 a.m. – 11:00 a.m.	Project 3: A Unique Approach Combining Avatar Mice and Targeted Mass Spectrometry to Identify Blood Biomarkers for Early Detection of Breast Cancer Michael Lewis, Ph.D., Baylor College of Medicine
11:00 a.m. – 11:10 a.m.	Q&A
	Ovarian Cancer
11:10 a.m. – 11:20 a.m.	PapSEEK and PapDREAMing for Early Detection of Ovarian Cancer; Analysis of Proteomic Signatures O Zhen Zhang, Ph.D., Johns Hopkins University School of Medicine O Ie-Ming Shih, M.D., Ph.D., Johns Hopkins University School of Medicine
11:20 a.m. – 11:30 a.m.	Q&A

Wednesday September 5, 2018

Breast and Gynecological Cancers Collaborative Group (Continued)

Ovarian Cancer (Continued)

11:30 a.m. – 11:40 a.m. Charles B Room	 Longitudinal Proteomic Pathways to Ovarian Cancer Biomarker Discovery Steven Skates, Ph.D., Massachusetts General Hospital Michael Gillette, M.D., Ph.D., Broad Institute at MIT and Harvard
11:40 a.m. – 11:50 a.m.	Q&A
11:50 a.m. – 12:00 p.m.	New Biomarkers to Improve Early Detection of Ovarian Cancer Robert Bast, M.D., The University of Texas MD Anderson Cancer Center
12:00 p.m. – 12:10 p.m.	Q&A
12:10 p.m. – 12:20 p.m.	Phase 2 and 3 Validation of Auto-Antibodies as Early Detection Biomarkers for Serous Ovarian Cancer Charles Drescher, M.D., Fred Hutchinson Cancer Research Center
12:20 p.m. – 12:30 p.m.	Q&A
12:30 p.m 1:30 p.m.	Lunch (On Your Own)
1:30 p.m. – 1:40 p.m.	Team Project 1: <u>Circulating Autoantibody</u> <u>Biomarkers for Early Detection of Ovarian Cancer</u> Robert Bast, M.D., The University of Texas MD Anderson Cancer Center
1:40 p.m. – 1:50 p.m.	Q&A

Wednesday September 5, 2018

Breast and Gynecological Cancers Collaborative Group (Continued)

Ovarian Cancer (Continued)

1:50 p.m. – 2:00 p.m. Team Project 2: <u>Ovarian Team Project: Ovarian</u>
Charles B Room <u>Cancer Detection by Plasma Proteins and Uterine</u>

Lavage

Lavage

Steven Skates, Ph.D., Massachusetts General

Hospital

2:00 p.m. – 2:10 p.m. Q&A

2:10 p.m. – 2:50 p.m. Discussion

 $\circ~$ Steven Skates, Ph.D., Massachusetts General

Hospital

o Christopher Li, M.D., Ph.D., Fred Hutchinson

Cancer Research Center

2:50 p.m. – 3:00 p.m. Election of New Chairs/Co-chairs for Collaborative Group

Thursday September 6, 2018

Reports from the Collaborative Groups

The Chair or Co-Chair will provide a brief overview of the research being conducted by that group and identify critical questions and gaps in the field. There will then be three presentations by different PIs and a discussion of the critical questions identified the previous day.

7:00 a.m. – 8:00 a.m. <i>Riverfront Foyer</i>	Sign-in/Continental Breakfast
8:00 a.m. – 9:40 a.m. <i>Riverfront Room</i>	Report from Gastrointestinal Cancers Collaborative Group
8:00 a.m. – 8:20 a.m.	Salient Report from the Chair/Co-Chair
8:20 a.m. – 8:40 a.m.	Presenter 1
8:40 a.m. – 9:00 a.m.	Presenter 2
9:00 a.m. – 9:20 a.m.	Presenter 3
9:20 a.m. – 9:40 a.m.	 Discussion of the Critical Questions Collaborative Group Chair Member of the EDRN Executive Committee EDRN PI with content expertise (not necessarily the organ expertise)
9:40 a.m. – 9:50 a.m.	Thoughts on the Nature of Neoplasia Larry Norton, M.D., Memorial Sloan-Kettering Cancer Center
9:50 a.m 10:00 a.m.	Break
10:00 a.m. – 11:40 a.m. <i>Riverfront Room</i>	Report from Prostate Cancer and Urological Cancers Collaborative Group
10:00 a.m. – 10:20 a.m.	Salient Report from the Chair/Co-Chair
10:20 a.m. – 10:40 a.m.	Presenter 1
10:40 a.m. – 11:00 a.m.	Presenter 2

Thursday September 6, 2018 (Continued)

Report from Prostate Cancer and Urological Cancers Collaborative Group (Continued)

11:00 a.m. – 11:20 a.m. Riverfront Room	Presenter 3
11:20 a.m. – 11:40 a.m.	 Discussion of the Critical Questions Collaborative Group Chair Member of the EDRN Executive Committee EDRN PI with content expertise (not necessarily the organ expertise)
11:40 a.m. – 12:10 p.m.	Towards Early Cancer Detection through EV <u>Analysis</u> Ralph Weissleder, M.D., Ph.D., Massachusetts General Hospital
12:10 p.m 1:30 p.m.	Lunch (On Your Own)
1:30 p.m. – 3:10 p.m. Riverfront Room	Report from Lung and Upper Aerodigestive Cancers Collaborative Group
<u> </u>	
Riverfront Room	Cancers Collaborative Group
Riverfront Room 1:30 p.m. – 1:50 p.m.	Cancers Collaborative Group Salient Report from the Chair/Co-Chair
Riverfront Room 1:30 p.m. – 1:50 p.m. 1:50 p.m. – 2:10 p.m.	Cancers Collaborative Group Salient Report from the Chair/Co-Chair Presenter 1

3:10 p.m. - 3:30 p.m.

Thursday September 6, 2018 (Continued)

3:30 p.m. – 5:10 p.m. <i>Riverfront Room</i>	Report from Breast and Gynecological Cancers Collaborative Group
3:30 p.m. – 3:50 p.m.	Salient Report from the Chair/Co-Chair
3:50 p.m. – 4:10 p.m.	Presenter 1
4:10 p.m. – 4:30 p.m.	Presenter 2
4:30 p.m. – 4:50 p.m.	Presenter 3
4:50 p.m. – 5:10 p.m.	 Discussion of the Critical Questions Collaborative Group Chair Member of the EDRN Executive Committee EDRN PI with content expertise (not necessarily with organ expertise)
5:10 p.m. – 6:10 p.m. Riverfront Room	 General Discussion on EDRN Progress, Structure and Outlook Sudhir Srivastava, Ph.D., M.P.H., National Cancer Institute Arul Chinnaiyan, M.D., Ph.D., University of Michigan Joshua LaBaer, M.D., Ph.D., Arizona State University/The Biodesign Institute
6:10 p.m.	Adjourn