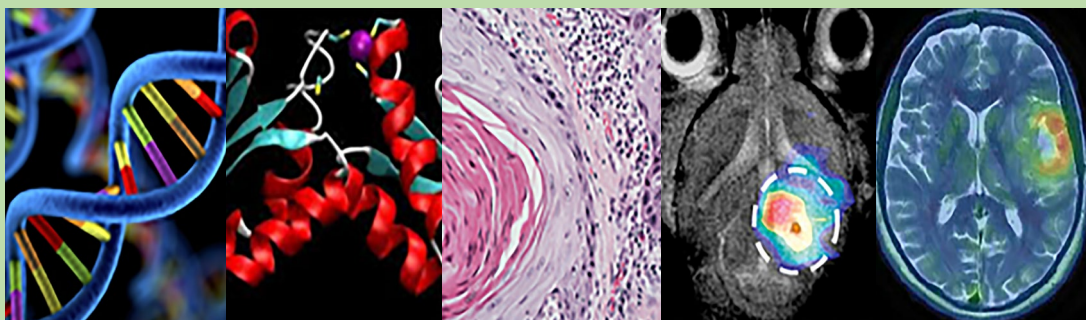
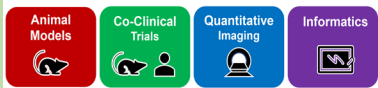


CIRP



NCI Virtual Meeting via WebEx | June 22-23, 2022

June 22, 2022, Day 1, EDT

- 10:00 am **Introduction**
Huiming Zhang, PhD, DCTD, NCI
- 10:05 am **Welcome**
Janet Eary, MD, Associate Director, DCTD, NCI

Part I CIRP Program

Moderator: Huiming Zhang, PhD

- 10:10 am **Session I CIRP Program and Individual Teams**
The NCI CIRP PROGRAM: QUANTITATIVE IMAGING RESEARCH RESOURCES AT PRECLINICAL AND CLINICAL SETTING
Huiming Zhang, PhD, DCTD, NCI
- 10:20 am **New CIRP Team Presentation**
CO-CLINICAL RESEARCH RESOURCES FOR IMAGING TUMOR ASSOCIATED MACROPHAGES
Heike Daldrup-Link, MD, Stanford University
- 10:40 am **A QUANTITATIVE PET/CT RESEARCH RESOURCE FOR CO-CLINICAL IMAGING OF LUNG CANCER THERAPIES**
Paul Kinahan, PhD, University of Washington
- 11:00 am **Established CIRP Team/Associate Member Progress**
CO-CLINICAL QUANTITATIVE IMAGING OF SMALL CELL NEUROENDOCRINE PRPSTATE CANCER USING HYPERPOLIZED 13C MRI
John Kurhanewicz, PhD, University of California at San Francisco
- 11:20 am **DEVELOPMENT OF AN OPEN-SOURCE PRECLINICAL IMAGING INFORMATICS PLATFORM FOR CANCER RESEARCH**
Koresh Shoghi, PhD, Washington University at St Louis
- 11:40 am **UNIVERSITY OF MICHIGAN QUANTITATIVE CO-CLINICAL IMAGING RESEARCH RESOURCE**
Brian Ross, PhD, University of Michigan

12:00 pm **Lunch Break**

- 12:40 pm **Established CIRP Team Progress**
INTEGRATING OMICS AND QUANTITATIVE IMAGING DATA IN CO-CLINICAL TRIALS TO PREDICT TREATMENT RESPONSE IN TRIPLE NEGATIVE BREAST CANCER
Mike Lewis, PhD, Baylor College of Medicine

- 1:00 pm MDACC PREDICT**
Charles Manning, PhD, MD Anderson Cancer Center
- 1:20 pm PENN QUANTITATIVE MRI RESOURCE FOR PANCREATIC CANCER**
Rong Zhou, PhD, University of Pennsylvania
- 1:40 pm THE DUKE PRECLINICAL RESEARCH RESOURCES FOR QUANTITATIVE IMAGING BIOMARKERS**
Cristian Badea, PhD, Duke University
- 2:00 pm WASHINGTON UNIVERSITY CO-CLINICAL IMAGING RESEARCH RESOURCE**
Kooresh Shoghi, PhD, Washington University at St Louis
- *****
- 2:20 pm Break**
- *****
- 2:35 pm Session II Demonstration of Web-Accessible Research Resources**
Moderator: Huiming Zhang, PhD
- 2:37 pm WU-C2IR2 Web-Resource Demo**
Kooresh Shoghi, PhD, Washington University at St Louis
- 2:53 pm Voxport- multimodal preclinical imaging of tumor heterogeneity**
G Allan Johnson, PhD, S Blocker, PhD, Duke University
- 3:09 pm Web resource design and contents of the University of Pennsylvania pancreatic cancer imaging resource**
Jeffrey T Duda, PhD, University of Pennsylvania
- 3:25 pm MDACC PREDICT Web-Accessible Resource: Current Status and Future Directions**
Jason Roszik, PhD, MD Anderson Cancer Center
- 3:41 pm University of Michigan Quantitative Co-Clinical Imaging Resource Demonstration**
D Malyarenko, PhD, University of Michigan
- 3:57 pm MIRACCL - Molecular and Imaging Response Analysis of Co-Clinical Trials**
Heidi Dowst, Baylor College of Medicine
- 4:13 pm UCSF Co-Clinical Imaging Research Resource Program Website - co-clinicalimaging.ucsf.edu**
Renuka Sriram, PhD, University of California San Francisco
- *****
- 4:30 pm Session III CIRP Power Pitch (Poster Briefing)**
Moderator: Rong Zhou, PhD, University of Pennsylvania
Michael Lewis, PhD, Baylor College of Medicine
- Please preview pre-recorded videos at **NIH Box** two weeks prior to the meeting.
In this live session, present 1 slide overview 2.5 mins.
- 5:30 pm End of the 1st day**

June 23, 2022, Day 2, EDT

Part II CIRP Network and Working Groups

10:00 am Session IV CIRP Network, Status and Progress

Moderator: Rong Zhou, PhD, University of Pennsylvania
Mike Lewis, PhD, Baylor College of Medicine

CIRP Network Update

Rong Zhou, PhD, University of Pennsylvania

10:10 am Session V Animal Model & Co-Clinical Trial (AMCT) WG

Moderators: Gary Luker, MD, University of Michigan
Allison Cohen, PhD, MD Anderson Cancer Center

Working Group Update

Gary Luker, MD, University of Michigan

10:40 am Presentations

Optimal MAPK targeting in colorectal cancer

Scott Kopetz, MD, MD Anderson Cancer Center

11:10 am Patient-derived models for basic and translational research

Seema Agarwal, PhD, Georgetown University

11:40 am Session VI Imaging Acquisition & Data Process (IADP) WG

Moderators: Seth Gammon PhD, MD Anderson Cancer Center
Renuka Sriram, PhD, University of California at San Francisco

Working Group Update

An Online Repository for Pre-clinical Imaging Protocols (PIPs)

Seth Gammon, PhD, MD Anderson Cancer Center

11:55 am Precision and Bias in ADC Measurements on Pre-Clinical MRIs Using a Standardized Phantom and Procedures

Tom Chenevert, PhD, University of Michigan

12:10 pm Emerging Technology Talks: Photon Counting CT

Clinical Benefits of Photon Counting CT

Cynthia McCollough, PhD, Mayo Clinic

12:40 pm Photon Counting CT and Preclinical Applications

Cristian Badea, PhD, Duke University

1:10 pm Lunch Break

1:50 pm Session VII Informatics & Outreach (IMOR) WG

Moderators: Daniel Rubin, MD, Stanford University
Dariya Malyarenko, PhD, University of Michigan

Working Group Updates

Update on web-accessible research resource

Daniel Rubin, MD, Stanford University

1:57 pm Update on Small Animal DICOM & Metadata

Steve Moore, PhD, Washington University at St Louis

2:12 pm Examples and discussion of challenges of interoperability in preclinical imaging

Dariya Malyarenko, PhD, University of Michigan

2:20 pm **Presentations**
BigImage Space- an environment for big image data
Stephan Blocker PhD, G Allan Johnson, PhD, Duke University

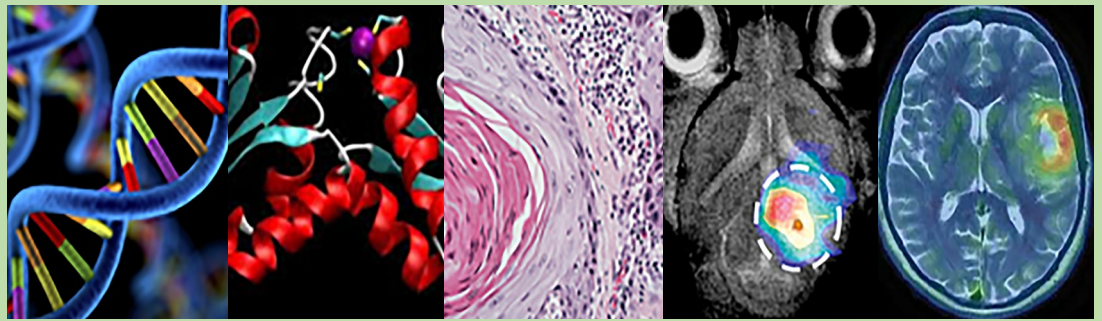
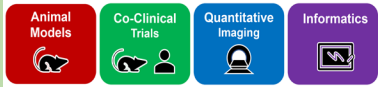
2:50 pm **NCI Imaging Data Commons: Status, opportunities, future directions**
Andrey Fedorov, PhD, Brigham and Women's Hospital

3:20 pm **Session VIII CIRP Network: Integration Issues from WGs**
Chair & Moderators: Rong Zhou, PhD, University of Pennsylvania
Michael Lewis, PhD, Baylor College of Medicine

Part III **CIRP Management and Business**

4:10 pm **Session IX Business Meeting**
All SC Members and NCI CIRP PDs
Chair/moderator: Rong Zhou, PhD, University of Pennsylvania
Michael Lewis, PhD, Baylor College of Medicine
Huiming Zhang, PhD, NCI

5:00 pm **End of the 2nd day.**



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Power Pitch for CIRP Posters, 4:30 - 5:30 pm EDT, June 22, 2022

1. **Metastasis-free survival improved by neoadjuvant radiation therapy and surgery compared to surgery alone in a model of soft-tissue sarcoma**
R Patel, YM. Mowery, et al., Duke University
2. **Identifying Metabolic Differentiators of Small Cell Neuroendocrine versus Adenocarcinoma subtypes of Castration-Resistant Prostate Cancer**
D Upadhyay*, J Sun, et al., University of California San Francisco
3. **PET imaging of glutamine metabolism in a clinical trial of metastatic colorectal cancer**
AS Cohen, GT Smith, et al., MD Anderson Cancer Center, Vanderbilt University Medical Center
4. **PENN Quantitative Imaging Resource for Pancreatic Cancer: Clinical trial updates**
M Rosen*, HK Song, et al., University of Pennsylvania
5. **4-[18F]Fluoroglutamine PET to predict response to combined inhibition of EGFR and glutaminolysis in KRAS wild-type metastatic colorectal cancer**
S-W Bae, AS Cohen, et al., MD Anderson Cancer Center, Vanderbilt University Medical Center
6. **MRI Reveals Dynamic Alterations Between Healthy, Diseased, and Treated Bone Marrow in a Mouse Model of Myelofibrosis**
TH. Robison, M Solipuram, et al., University of Michigan
7. **Quantitative assessment of tumor response to anti-CD47 immunotherapy with ferumoxyl-enhanced MRI**
R Roudi, SK Ramasamy, et al., Stanford University
8. **Quantitative methods using long-lived phantoms to cross-calibrate preclinical and clinical PET scanners**
A Lehnert, R Miyaoka, et al., University of Washington, Harvard Medical School, and Fred Hutchinson Cancer Center
9. **Reproducibility of Quantitative T2* Mapping of Osteosarcomas in Mouse Models**
SK Ramasamy, R Roudi, Stanford University
10. **DWI Metrics Differentiating Intraductal Papillary Mucinous Neoplasms from Pancreatic Cancer: A Study in GEM Models**
M Romanello, E Furth, et al., University of Pennsylvania
11. **PET/MRI co-agents can quantitatively measure tumor extracellular pH**
AC Pollard, J de la Cerda, et al., MD Anderson Cancer Center
12. **Detection of the early response to radiation therapy in tumor models using Oxygen Enhanced – Dynamic Contrast Enhanced MSOT**
S Goel, J de la Cerda, et al., MD Anderson Cancer Center
13. **Photon-Counting X-ray CT Perfusion Imaging in Animal Models of Cancer**
D. P. Clark, A. J. Allphin, et al., Duke University
14. **Radiomics Analysis of Photon-Counting X-ray CT Enables Differentiation of Tumors with Differing Lymphocyte Burden**
AJ Allphin, YM Mowery, et al., Duke University, Texas Children Hospital, Baylor College of Medicine

- 15. An image-processing pipeline for quantitative imaging in co-clinical trials**
DA Hormuth II, JC DiCarlo, et al., University of Texas at Austin, Baylor College of Medicine
- 16. A deep CNN-transformer model for learning apparent diffusion coefficient maps from under-sampled radial acquisition DWI data**
Y Li, M Romanello, et al., University of Pennsylvania
- 17. Deep Learning based framework for quantitative estimation of Standard-Count [18F]-FDG PET from *in-vivo* preclinical Low-Count [18F]-FDG PET images**
K Dutta, R Laforest, et al., Washington University at St Louis
- 18. Biomedical imaging data registry, analysis, and translation (BiRAT): Initial development of a multi-center data server and web-application**
F Habte, R Pemmaraju, et al., Stanford University, Johns Hopkins University, CCG Tech, University of Rochester,
- 19. Integrating Omics and Quantitative Imaging Data in Co-Clinical Trials: The ePAD Platform for Extracting and Analyzing Cancer Image Features**
E. Alkim, M. U. Akdogan, et al, Baylor College of Medicine, UT Austin, Stanford University
- 20. Stanford Co-Clinical Imaging Research Resources Program (CIRP) - Website**
SK Ramasamy, R Roudi, et al., Stanford University
- 21. PIXI: A preclinical imaging XNAT-enabled informatics (PIXI) platform for co-clinical imaging research**
AW. Lassiter, SM. Moore, et al., Washington University at St Louis