EMORY UNIVERSITY SCHOOL OF MEDICINE
Department of Radiology and Imaging Sciences

Georgia Tech
Wallace H. Coulter Department of Biomedical Engineering
Georgia Tech College of Engineering and Emory School of Medicine

EMORY UNIVERSITY

EMORY WINSHIP CANCER INSTITUTE
A Cancer Center Designated by the National Cancer Institute

Workshop and Launch of the Integrative Cancer Imaging Research Initiative (iCIRI)

Health Sciences Research Building at Emory University - 1760 Haygood Dr NE, Atlanta, GA 30322
Friday, October 28, 2016, 8:00 a.m. – 5:00 p.m.

7:30 a.m. – 8:00 a.m. BREAKFAST & REGISTRATION

8:00 a.m. – 8:15 a.m. WELCOME & OPENING REMARKS

Walter J. Curran, Jr, MD
Executive Director, Winship Cancer Institute, Lawrence W. Davis Chair of Radiation Oncology
Associate Vice President, Cancer, Woodruff Health Science Center, Emory Univeristy

C. Ross Ethier, PhD
Georgia Research Alliance Lawrence L. Gellerstedt, Jr. Eminent Scholar in Bioengineering
Professor and Interim Chair, Coulter Department of Biomedical Engineering, Emory and Georgia Tech

Carolyn C. Meltzer, MD
William P. Timmie Professor and Chair, Department of Radiology and Imaging Sciences, and Associate Dean for Research, Emory University School of Medicine

8:20 a.m. – 8:35 a.m. INTRODUCTION TO THE NEW INITIATIVE

Baowei Fei, PhD, Associate Professor
GRA Distinguished Cancer Scientist, Department of Radiology and Imaging Sciences, Emory University School of Medicine
Coulter Department of Biomedical Engineering, Emory and Georgia Tech

8:40 a.m. – 9:30 a.m. **Keynote: Cancer Imaging: The Dawning of a New Day**

Annick D. Van Den Abbeele, MD
Chief, Department of Imaging, and Founding Director, Center for Biomedical Imaging in Oncology, Dana-Farber Cancer Institute
Co-Director, Tumor Imaging Metrics Core at the Dana-Farber/Harvard Cancer Center
Associate Professor of Radiology, Harvard Medical School

9:35 a.m. – 9:55 a.m. BENCH TO FDA APPROVAL OF AXUMIN (ANTI-3-[18F]FACBC) FOR IMAGING CANCER

Mark M. Goodman, PhD, Professor
Department of Radiology and Imaging Sciences, Emory University School of Medicine

10:00 a.m. – 10:20 a.m. SPECTROSCOPIC MRI FOR THE MANAGEMENT OF GBM PATIENTS

Hyunsuk Shim, PhD, Professor
Department of Radiology and Imaging Sciences, Emory University School of Medicine

10:25 a.m. – 10:35 a.m. BREAK, INTERACTION & POSTER VIEWING

10:40 a.m. – 11:00 a.m. CLINICAL TRANSLATION OF EMERGING ULTRASOUND IMAGING TECHNOLOGIES
Stanislav Emelianov, PhD, Professor
Department of Electrical and Computer Engineering, Georgia Tech
Coulter Department of Biomedical Engineering, Emory and Georgia Tech

11:05 a.m. – 11:25 a.m. THERANOSTIC NANOPARTICLES FOR TARGETED CANCER IMAGING AND IMAGE-GUIDED DRUG DELIVERY
Hui Mao, PhD, Professor
Department of Radiology and Imaging Sciences, Emory University School of Medicine

11:30 a.m. – 11:50 a.m. CHARACTERIZING TUMOR IMMUNOLOGY: FROM GENE REGULATION TO IMMUNE CELL TRAFFICKING
Philip Santangelo, PhD, Associate Professor
Coulter Department of Biomedical Engineering, Emory and Georgia Tech

11:55 a.m. – 12:15 p.m. COMPUTATIONAL PATHOLOGY: SOFTWARE TOOLS FOR PREDICTION AND LEARNING FROM HETEROGENEOUS CANCER DATA
Lee Cooper, PhD, Assistant Professor
Department of Biomedical Informatics, Emory University
Coulter Department of Biomedical Engineering, Emory and Georgia Tech

12:15 p.m. – 1:00 p.m. LUNCH, INTERACTION & POSTER VIEWING

1:10 p.m. – 2:00 p.m. **Keynote: Intraoperative Imaging and Image Updating for Guiding Tumor Resection**
Keith D. Paulsen, PhD
Robert A. Pritzker Professor of Biomedical Engineering and Professor of Radiology, The Geisel School of Medicine at Dartmouth
Scientific Director, Advanced Imaging Center, and Project Leader, Center for Surgical Innovation, Dartmouth-Hitchcock
Co-Director, Cancer Imaging and Radiobiology Research Program, Norris Cotton Cancer Center

2:05 p.m. – 2:25 p.m. MOLECULAR IMAGE-GUIDED TARGETED BIOPSY FOR PROSTATE AND OTHER CANCER
David M. Schuster, MD, Associate Professor
Department of Radiology and Imaging Sciences, Emory University School of Medicine

2:30 p.m. – 2:50 p.m. MRI-GUIDED INTERVENTIONS FOR CANCER APPLICATIONS
Sherif Nour, MD, Associate Professor
Department of Radiology and Imaging Sciences, Emory University School of Medicine

2:55 p.m. – 3:15 p.m. BIOPHOTONICS AND NANOTECHNOLOGY: NEW OPPORTUNITIES FOR IMAGE-GUIDED CANCER SURGERY
Shuming Nie, PhD, Professor
Coulter Department of Biomedical Engineering, Emory and Georgia Tech

3:20 p.m. –3:30 p.m. WORKSHOP WRAP UP AND POSTER AWARD ANNOUNCEMENT

3:30 p.m. – 5:00 p.m. POSTER SESSION

Cancer Imaging: The Dawning of a New Day

Annick D. Van den Abbeele, MD, FACR

Dr. Van den Abbeele is the chief of the Department of Imaging and founding director of the Center for Biomedical Imaging in Oncology at the Dana-Farber Cancer Institute. She also is co-director of the Tumor Imaging Metrics Core at the Dana-Farber/Harvard Cancer Center and an associate professor of radiology at Harvard Medical School.

Dr. Van den Abbeele is a pioneer in monitoring responses to molecularly-targeted therapy and immunotherapy in cancers and is internationally renowned for the implementation and development of quantitative metrics in cancer imaging. She has developed an integrated clinical and research cancer imaging department model to support translational cancer research, probe and drug development, and pre-clinical and clinical trials. She has authored more than 200 scientific articles and abstracts, co-edited two textbooks, and co-authored twenty-five book chapters.

Dr. Van den Abbeele is a Fellow of the American College of Radiology (FACR) and was recently appointed Co-Editor-in-Chief of Cancer Imaging, the Journal of the International Cancer Imaging Society. She has received several awards and serves on national and international scientific advisory boards, review panels, NCI program progress review groups, and committees.

Intraoperative Imaging and Image Updating for Guiding Tumor Resection

Keith D. Paulsen, PhD

Keith D. Paulsen is currently the Robert A. Pritzker Professor of Biomedical Engineering at the Thayer School of Engineering at Dartmouth; professor of radiology and surgery at the Geisel School of Medicine; director of the Advanced Imaging Center and scientific director of the Center for Surgical Innovation at Dartmouth Hitchcock Medical Center; associate director of Translational Programs for SYNERGY, Dartmouth's Center for Clinical and Translational Science; and co-director of the Cancer Imaging and Radiobiology Research Program at the Norris Cotton Cancer Center, Dartmouth's NCI-designated Comprehensive Cancer Center.

Dr Paulsen is a fellow of IEEE, SPIE and AIBME, and an expert in biomedical imaging and computational modeling. His research has focused on the development and translation of advanced imaging technology, primarily for cancer detection, diagnosis, therapy monitoring and surgical guidance. He has authored almost 400 archival publications, is an inventor on 35 patents or patents-pending, and has maintained an active research program continuously funded by the NIH over the past 25 years.