2nd Annual
Intraoperative Imaging Technologies for Cancer Detection & Treatment

FRIDAY, DECEMBER 8, 2017
Memorial Sloan Kettering Cancer Center
Zuckerman Research Center
417 E 68th Street
New York, NY

New Educational Workshops Included!
Course Overview

The overall goal of the course is to update the learner on the progress made in the area of image-guided intraoperative treatment of cancer.

This course is directed towards surgical oncologists, radiologists, pathologists, engineers, research scientists, technologists.

EDUCATIONAL OBJECTIVES

• Develop familiarity with present and future intraoperative imaging technology advances.

• Enhance understanding of the role of molecular imaging and imaging analysis tools to highlight features of cancerous tissue for guiding biopsy, therapy, or decision-making.

• Facilitate integration of new intraoperative tools into standard surgical practice.

Image-guided Intraoperative Imaging Technologies enable surgeons to deliver therapies, confirm procedure status, and modify treatment management during the course of an operation, often enhancing outcomes. At Memorial Sloan Kettering Cancer Center, we use multiple imaging techniques for various types of cancer.
Course Directors

Nadeem R. Abu-Rustum, MD, FACOG, FACS
Chief, Gynecology Service
Vice Chair for Technology Development
Department of Surgery
Avon Chair in Gynecologic Oncology

Michelle S. Bradbury, MD, PhD
Director, Intraoperative Imaging
Co-Chair, Innovation & Technology Team
Co-Director, MSK-Cornell Center for Translation of Cancer Nanomedicines
Member, Molecular Pharmacology Program
Professor of Radiology, Gerstner Sloan Kettering Graduate School & Weill Medical College of Cornell University

MSK FACULTY

Jeffrey Drebin, MD, PhD
Chair, Department of Surgery

Hedvig Hricak, MD, PhD, Dr (hc)
Chair, Department of Radiology
Carroll and Milton Petrie Chair

Stephen Solomon, MD
Chief, Interventional Radiology Service

Krishna Juluru, MD
Associate Attending Radiologist
Director of Imaging Informatics, Department of Radiology

Jan Grimm, MD, PhD
Associate Member
Molecular Pharmacology Program
Associate Attending
Department of Radiology

Moritz Kircher, MD, PhD
Member, Molecular Pharmacology Program
Associate Attending, Department of Radiology

Thomas Reiner, PhD
Assistant Attending
Department of Radiology

Amber Simpson, PhD
Assistant Attending
Department of Surgery

Pat Zanzonico, PhD, DABR
Member and Attending Physicist
Co-Head, Small-Animal Imaging Core Facility

VISITING FACULTY

Christina Liu, PhD, PE
Program Director, NCI Office of Cancer Nanotechnology Research

Keyvan Farahani, PhD
Program Director, Imaging Guided Intervention Branch, Cancer Imaging Program, National Cancer Institute

Matthew Bogyo, PhD
Professor, Department of Pathology, Stanford University School of Medicine

James Basilion, PhD
Professor of Radiology, Biomedical Engineering, and Pathology
Case Western Reserve University
Case Center for Imaging Research
Department of Radiology

Eben Rosenthal, MD
Co-Founder, International Society of Image Guided Surgery; Professor of Otolaryngology and Radiology, Ann & John Doerr Medical Director, Stanford Cancer Center
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>8:00 AM</td>
<td><strong>BREAKFAST &amp; REGISTRATION</strong></td>
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<tr>
<td>9:00 AM</td>
<td><strong>Opening Remarks</strong></td>
<td>Hedvig Hricak, MD, PhD, Dr (hc)</td>
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<td>Jeffrey Drebin, MD, PhD</td>
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<td>Pat Zanzonico, PhD, DABR</td>
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<td>9:15 AM</td>
<td><strong>Cancer Nanotechnology/Imaging Program</strong></td>
<td>Christina Liu, PhD, PE</td>
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<td>9:30 AM</td>
<td><strong>Keynote Address</strong></td>
<td>James P. Basilion, PhD</td>
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<tr>
<td>9:50 AM</td>
<td><strong>Leveraging Light in the Operating Room: Advances in Surgical Imaging</strong></td>
<td>Eben Rosenthal, MD</td>
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<tr>
<td>10:10 AM</td>
<td><strong>Image Guided Surgical Treatment of Nodal Disease and Nerve Mapping Using Clinically Translated Silica Nanoparticles</strong></td>
<td>Michelle Bradbury, MD, PhD</td>
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<td>10:30 AM</td>
<td><strong>Fluorescent Probes for Imaging Tumor Margins: Recent Progress and Future Direction</strong></td>
<td>Matthew S. Bogyo, PhD</td>
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<td>10:50 AM</td>
<td><strong>Q&amp;A Session</strong></td>
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<td>11:10 AM</td>
<td><strong>BREAK</strong></td>
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<tr>
<td>11:30 AM</td>
<td><strong>Advances and Opportunities in Image-Guided Interventions</strong></td>
<td>Keyvan Farahani, PhD</td>
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<tr>
<td>11:50 AM</td>
<td><strong>Gynecologic Surgery: Beyond White Light and the Naked Eye</strong></td>
<td>Nadeem Abu-Rustum, MD, FACOG, FACS</td>
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<tr>
<td>12:10 PM</td>
<td><strong>Radiomics of Gastrointestinal Cancers</strong></td>
<td>Amber Simpson, PhD</td>
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Educational Workshop Lunch

Participants are able to attend the session of their choice and are free to move between sessions throughout lunch.

SESSION A:  
Multi-Spectral Optoacoustic Tomography  
(Zuckerman Room 136)  
MODERATOR:  
Moritz Kircher, MD, PhD  
Attendees will be introduced to the next generation in molecular imaging through Multispectral Optoacoustic Tomography (MSOT) technology, and will learn how MSOT combines the molecular specificity of optical imaging with the penetration depth and spatiotemporal resolution of ultrasound.

SESSION B:  
Fluorescent Image Guided Surgery  
(Zuckerman Room 105)  
MODERATOR:  
Michelle S. Bradbury, MD, PhD  
Participants will experience a valuable platform in precision surgery and diagnosis, and engage in real time simultaneous capturing of color image and two different fluorescent channel images for laparoscopic and open procedures.

2:00 PM  
Applications of Intraoperative Advanced Visualization and 3D Printing  
Krishna Juluru, MD

2:20 PM  
Imaging with Ultrafast Particles  
Jan Grimm, MD, PhD

2:40 PM  
Intraoperative Imaging of PARP1 in Oral Cancer  
Thomas Reiner, PhD

3:00 PM  
Raman Nanoparticles for High Precision Cancer Imaging and Theranostic  
Moritz Kircher, MD, PhD

3:20 PM  
Molecular Imaging Guided Interventions  
Stephen Solomon, MD

3:40 PM  
Panel Discussion  
MODERATORS:  
Christina Liu, PhD, PE  
Program Director, NCI Office of Cancer Nanotechnology Research  
Keyvan Farahani, PhD  
Program Director, Imaging Guided Intervention Branch, Cancer Imaging Program, National Cancer Institute  
PANELISTS:  
James Basilion, PhD  
Krishna Juluru, MD  
Eben Rosenthal, MD  
Stephen Solomon, MD  
Pat Zanzonico, PhD, DABR

4:30 PM  
SYMPOSIUM ADJOURN
## Registration

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<th>EARLY*</th>
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<tr>
<td>Physicians (MDs, PhDs and DOs)</td>
<td>$300</td>
<td>$350</td>
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<tr>
<td>Residents, Fellows, Nurses and Other Healthcare Providers</td>
<td>$100</td>
<td>$150</td>
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<tr>
<td>Industry Professionals*</td>
<td>$800</td>
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*Early Registration Deadline: 10/8/17

**REGISTER ONLINE:**
www.mskcc.org/IntraoperativeCourse

### REGISTRATION DETAILS
Registration includes continental breakfast, lunch, and refreshment breaks. Please contact us at least one week prior to the course if you have any special dietary needs.

- **30% Discounted Rate for MSK Alumni and MSK Alliance Members**
  MSK offers a 30% discounted rate to all MSK Alumni and MSK Alliance members to attend a CME course. Please contact cme@mskcc.org for a promo code or more information.

- **MSK Staff Registration**
  Registration is complimentary for MSK staff who wish to attend this course. However, you must register online by visiting the course website, www.mskcc.org/IntraoperativeCourse.

*Industry Professionals*
Registration is for educational purposes only. Marketing, sales, and promotion of products and services are prohibited at CME activities.

### ACCREDITATION STATEMENT
MSK is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

### AMA CREDIT DESIGNATION STATEMENT
MSK designates this live activity for a maximum of **7.25 AMA PRA Category 1 Credit(s)™**. Physicians should only claim credit commensurate with the extent of their participation in the activity.

### FACULTY DISCLOSURE
It is the policy of MSK to make every effort to insure balance, independence, objectivity, and scientific rigor in all continuing medical education activities which it provides as an ACCME accredited provider. In accordance with ACCME guidelines and standards, all faculty participating in an activity provided by MSK are expected to disclose any significant financial interest or other relationship with the manufacturer(s) of any commercial product(s) and/or provider(s) of commercial services which are discussed by the faculty members in an educational presentation. As required by the ACCME, when an unlabeled use of a commercial product or an investigational use not yet approved for any purpose is discussed during an educational activity, MSK requires the speaker to disclose that the product is not labeled for the use under discussion or that the product is still investigational.

### ACCOMMODATIONS
For information on hotels in the area of MSK with discounted rates, please visit: www.mskcc.org/cme.

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CONTINUING MEDICAL EDUCATION
MEMORIAL SLOAN KETTERING CANCER CENTER
633 Third Avenue, 12th Floor, New York, NY 10017
w: www.mskcc.org/cme  |  e: cme@mskcc.org

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