^{3rd Annual} Intraoperative Imaging Technologies for Cancer Detection & Treatment

December 7, 2018

Memorial Sloan Kettering Cancer Center Zuckerman Research Center New York



80



Memorial Sloan Kettering Cancer Center



COURSE OVERVIEW

OVERVIEW

The overall goal of the course is to update the learner on current and next generation image-guided intraoperative technologies for improving cancer detection, treatment, and patient outcomes. It will include didactic lectures and hands-on workshops featuring the latest technological innovations.

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

EDUCATIONAL OBJECTIVES

- Enhance understanding of the role of optical image-guided • structural and functional visualization systems for individualizing treatment.
- Highlight new surgical imaging analysis tools for understanding complex 3D anatomy.
- Review advances in three-dimensional printing for surgical • planning and patient-specific implant designs.
- Develop familiarity with next-generation imaging probes and paradigms for guiding therapeutic interventions, biopsies, and surgical decision-making.
- Facilitate integration of next-generation intraoperative tools • into clinical trial designs and routine practice.

EDUCATIONAL WORKSHOP LUNCH

Fluorescent Image Guided Surgery - 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.

In partnership with: **MSK-Cornell Center for Translation** of Cancer Nanomedicines



Novel diagnostic and therapeutic nanotechnologies that can enable earlier and more specific detection of cancer, as well as enhance treatment response, are critically needed to improve patient outcomes.

The goal of the MSK-Cornell Center for Translation of Cancer Nanomedicine (MC2TCN) is to advance, translate, and disseminate a suite of ultrasmall (<10 nm), multimodality (PET/optical), core-shell silica nanoparticles.

MSK COURSE DIRECTORS



MSK COURSE FACULTY

Joseph Dayan, MD Co-Director of Lymphatic Surgery and Research Assistant Attending Department of Surgery

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

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

Brian Madajewski, PhD Postdoctoral Research Fellow The Michelle Bradbury Lab

INVITED COURSE FACULTY

Elchanan Bruckheimer, MBBS Director, Cardiac Catheterization Laboratory Schneider Children's Medical Center Israel

Keyvan Farahani, PhD

Program Director, Image-Guided Interventions Deputy Director for Technology, Quantitative Imaging Network Cancer Imaging Program, NCI, NIH

Brian Gastman, MD

Attending, Department of Plastic Surgery Cleveland Clinic Associate Professor Department of Surgery, School of Medicine Member, Hematopoietic and Immune Cancer **Biology** Program Case Comprehensive Cancer Center

Nadeem R. Abu-Rustum, MD, FACOG, FACS

Chief, Gynecology Service Vice Chair for Technology Development Department of Surgery Avon Chair in Gynecologic Oncology



Co-Director, MSK-Cornell Center for Translation of Cancer

Nanomedicines & Director, Intraoperative Imaging Program Member, Molecular Pharmacology Program Attending, Department of Radiology, MSK Professor, GSK Graduate School & Weill Medical College of Cornell University

Snehal Patel, MD, FRCS

Attending Department of Surgery

Thomas Reiner, PhD

Associate Attending Department of Radiology

Amber Simpson, PhD Assistant Attending Department of Surgery

Stephen Solomon, MD

Chief, Interventional Radiology Attending Department of Radiology

Pat Zanzonico, PhD, DABR Attending Department of Medical Physics Co-Director, Small-Animal Imaging Core Facility

Piotr Grodzinski, PhD

Director, NCI Office of Cancer Nanotechnology Research

Eben Rosenthal, MD

Ann & John Doerr Director of Cancer Services Professor of Otolaryngology and Radiology Member, Molecular Imaging Program Stanford Comprehensive Cancer Center

Jeffrey Siewerdsen, PhD, FAAPM, FAIMBE

John C. Malone Professor and Vice-Chair, Department of Biomedical Engineering Co-Director, The Carnegie Center for Surgical Innovation The I-STAR Lab Johns Hopkins University

COURSE SCHEDULE

8:30 AM	Registration & Breakfast
9:00 AM	Opening Remarks Nadeem R. Abu-Rustum, MD, FACOG, FACS Michelle S. Bradbury, MD, PhD
9:15 ам	Nanotechnology in Cancer: Current Challenges and Future Opportunities Piotr Grodzinski, PhD
9:30 am	Keynote Address Tale of the Pineberry: What is Fluorescent Guided Surgery Going to Look Like? Eben Rosenthal, MD
9:50 am	Intraoperative 3D Rendering, 3D Printing, and Beyond Krishna Juluru, MD
10:10 ам	Holography for Interventions in Oncology Elchanan Bruckheimer, MBBS
10:30 ам	Molecular Imaging Guidance for Percutaneous Procedures Stephen Solomon, MD
10:50 ам	Break
11:10 am	Real-time Molecular Phenotyping and Image-Guided Surgical Treatment of Cancer Michelle S. Bradbury, MD, PhD
11:30 ам	Sentinel Lymph Node Mapping Using a Multimodal Nanoparticle Snehal Patel, MD, FRCS
11:50 ам	Fluorescence Imaging for Prevention, Diagnosis, and Treatment of Lymphedema Joseph Dayan, MD
12:10 рм	Indocyanine Green Based Imaging to Improve Lymphatic Mapping During Melanoma Surgery Brian Gastman, MD
12:30 рм	Educational Workshop Lunch Fluorescent Image Guided Surgery MODERATORS Michelle S. Bradbury, MD, PhD and Brian Madajewski, PhD
2:10 рм	Advances in Image-Guided Surgery: From Precision to Safety and Data Science Jeffrey Siewerdsen, PhD, FAAPM, FAIMBE
2:30 рм	Next Generation Imaging for Hepatopancreatobiliary Cancers Amber Simpson, PhD
2:50 рм	Approaches to Intraoperative Imaging Using Cerenkov Light Jan Grimm, MD, PhD
3:10 рм	Assignment of Surgical Margins with PARP Imaging Agents in the Oral Cavity Thomas Reiner, PhD
3:30 рм	Panel Discussion Future Directions for Imaging Guided Intraoperative Technologies and Interventions

MODERATORS Nadeem R. Abu-Rustum, MD, FACOG, FACS Michelle S. Bradbury, MD, PhD Keyvan Farahani, PhD

PANELISTS Jeffrey Siewerdsen, PhD, FAAPM, FAIMBE Krishna Juluru, MD Eben Rosenthal, MD Stephen Solomon, MD Pat Zanzonico, PhD, DABR

REGISTRATION

Registration Fees	Early*	General
Physicians (MDs, PhDs, and DOs)	\$300	\$350
Residents, Fellows, Nurses, and Other Healthcare Providers	\$100	\$150
Industry Professionals**	\$800	\$800

*Early registration rate expires November 6, 2018.

**Industry professionals may attend CME activities for their own education. Marketing, sales, and promotion of products and services is strictly prohibited at MSK CME activities.

REGISTER ONLINE: mskcc.org/IntraoperativeCourse

Course registration includes continental breakfast, lunch, and refreshment breaks. Please contact cme@mskcc.org at least one week prior to the course if you have any special dietary requests or require any specific accommodations.

- MSK CME offers a 30% discounted rate for MSK Alumni, MSK Cancer Alliance and Cancer Care Partners. If you are a member of one of these groups, please contact cme@mskcc.org for more information.
- MSK employee registration is complimentary. However, you must complete course registration in order to attend this course: mskcc.org/IntraoperativeCourse.

Please note: after your payment has been processed, no further promotional discount adjustments will be made to your registration.

ACCREDITATION

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 Credits™. 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 ensure balance, independence, objectivity, and scientific rigor in all continuing medical education activities it offers 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 of any commercial product and/or provider of commercial services which are discussed by them 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.



TRAVEL & ACCOMMODATIONS

COURSE LOCATION

Memorial Sloan Kettering Cancer Center Mortimer B. Zuckerman Research Center 417 East 68th Street New York, NY 10065

HOTELS

MSK has negotiated special rates and amenities at select hotels in Manhattan. For information on hotels in the vicinity of MSK with discounted rates, please visit: **mskcc.org/cme**.

CONTACT

Memorial Sloan Kettering Cancer Center Office of Continuing Medical Education

mskcc.org/cme cme@mskcc.org



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