

► INTRAOPERATIVE MOLECULAR IMAGING

PRECISION SURGERY

2ND CLINICAL TRIALS UPDATE | A CME-ACCREDITED CONFERENCE

FRIDAY, NOVEMBER 6, 2020 | 7:00 am - 6:30 pm



AGENDA

7:00 am CME Activity Starts

7:00 am Log-in to Virtual Conference

7:15 am Welcome and Introductions

Robert H. Vonderheide, MD, DPhil, Director, Abramson Cancer Center

Daniel Yoshor, MD, Chairman, Neurosurgery

Ronald P. DeMatteo, MD, FACS, Chairman, Surgery

Edward J. Delikatny, PhD, Activity Director

John Y. K. Lee, MD, MSCE, Activity Director

Sunil Singhal, MD, Activity Director

SESSION 1:

Phase III Clinical Trials In Intraoperative Molecular Imaging For Cancer Surgery

MODERATOR: Quyen Nguyen, MD, PhD

7:30 am 5-ALA in the United States Post-Approval Adoption Challenges,
Reimbursement and Future Directions: Phase IV

Costas Hadjipanayis, MD, PhD – Neurosurgery

7:50 am Folate NIR Dye for Ovarian Cancer: Phase 3 US Trial

Janos L. Tanyi, MD, PhD – Gynecologic Oncology, Activity Director

8:10 am Folate NIR Dye for Lung Cancer: Phase 3 US Trial

Sunil Singhal, MD – Thoracic Surgery

8:30 am CEA Colon Cancer Trial: Phase 3 European Trial

Alexander L. Vahrmeijer, MD – Oncologic Surgery

8:50 am Protease Activated Dye in Breast Cancer Surgery: Multicenter,
randomized US Trials

Barbara L. Smith, MD, PhD – Breast Surgery

9:10 am Discussion

9:30 am Break

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SESSION 2:

Phase II Clinical Trials In Intraoperative Molecular Imaging For Cancer Surgery

MODERATOR: Jason G. Newman, MD, FACS, Activity Director

10:00 am **Anti-EGFR Antibody Imaging Strategies for Real-Time Surgical and Pathologic Guidance**

Eben Rosenthal, MD – Otolaryngology: Head & Neck Surgery;
Radiology: Radiology/Molecular Imaging

10:20 am **Alliance Trial – TumorGlow® in Sarcoma Metastasis to Lung**

Linda W. Martin, MD, MPH – Thoracic Surgery

10:40 am **Ph Sensitive Dyes in Head & Neck Cancer**

Baran Sumer, MD, FACS – Otolaryngology, Head & Neck Surgery

11:00 am **The Road to Image Guidance in Breast Surgery**

Ari D. Brooks, MD – Endocrine and Oncologic Surgery

11:20 am **Discussion**

12:00 pm **Break**

SESSION 3:

Pilot And Phase I Clinical Trials In Intraoperative Molecular Imaging For Cancer Surgery

MODERATOR: Andrew Tsourkas, PhD

12:30 pm **NIR II – with ICG in Human Liver Tumors**

Jie Tian, PhD – Automation, Medical Imaging

12:45 pm **TumorGlow® Second Window ICG in Brain Tumors**

John Y.K. Lee MD, MSCE – Neurosurgery

1:00 pm **TumorGlow® Second Window ICG in Pancreatic Cancer**

Major Kenneth Lee, IV, MD, PhD – Gastrointestinal Surgery

1:15 pm **EGFR Affibody: Design & Implementation of Novel Targeted Tumor Dye**

Eric R. Henderson, MD – Orthopedic Oncology

1:30 pm **Tumor Paint™ Imaging – Pediatric Brain Tumors**

Amy Lee, MD – Pediatric Neurological Surgery



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- 2:00 pm** **Nerve Specific Dyes – Normal Tissue Identification**
Quyen Nguyen, MD, PhD – Otolaryngology: Head & Neck Surgery
- 2:15 pm** **Nerve Specific Dyes – Normal Tissue Identification**
Summer L. Gibbs, PhD – Biomedical Engineering
- 2:30 pm** **Discussion**
- 3:00 pm** **Break**

SESSION 4:

Intraoperative Camera And Back Table Imaging Platforms

MODERATOR: E. James Petersson, PhD

- 3:45 pm** **Review of Fluorescence Camera Imaging: Advantages versus disadvantages**
Brian W. Pogue, PhD – Engineering
- 4:00 pm** **Raman Spectroscopy Imaging of Brain Tumors on the Back Table**
Daniel A. Orringer, MD – Neurosurgery
- 4:30 pm** **Multispectral and Confocal Microscopy**
Cleopatra Charalampaki, MD, PhD – Neurosurgery
- 4:45 pm** **Discussion**
- 4:55 pm** **CME Activity Concludes**

INDUSTRY SESSION

SESSION 5: Industry Session: Individual Camera & Imaging Platforms

MODERATOR: Stefan Harmsen, PhD

- 5:00 pm** **Stryker**
John Shen (San Jose, California, USA)
- 5:15 pm** **Medtronic & EleVision**
Alex Chanin (Philadelphia, Pennsylvania, USA)
- 5:30 pm** **Intuitive Surgical**
Jonathan Sorger (Belmont, California, USA)

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- 5:45 pm** **Fluorescence**
Richard Meester (Cleveland, Ohio, USA)
- 6:00 pm** **Panel Discussion – Future Unmet Needs**
MODERATOR: Sunil Singhal, MD
All speakers
- 6:30 pm** **Industry Session Concludes**
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Overview

Penn's Abramson Cancer Center and Center for Precision Surgery present this activity to review and discuss recent progress and future challenges in clinical trials for intraoperative molecular imaging during cancer surgery. Lectures and interactive participation will encourage a dynamic exchange of ideas between faculty and attendees.

Learning Objectives

At the completion of this course, participants should be able to:

- Describe the status of ongoing or completed clinical trials in the field of intraoperative molecular imaging for cancer surgery
- Define indications and endpoints for intraoperative imaging trials in clinical cancer surgery
- Identify differences in camera imaging systems and advantages/disadvantages of various engineering and technology solutions

Who Should Attend

This activity is designed for surgeons and researchers interested in learning about intraoperative molecular imaging. This includes surgical oncologists, neuro-surgeons, thoracic surgeons, gynecologic oncology surgeons, gastrointestinal surgeons, otorhinolaryngologists/head and neck cancer surgeons, and other healthcare professionals involved in intraoperative molecular imaging for cancer such as radiologists, physicists, engineers, research scientists, and technologists.

ACCREDITATION

In support of improving patient care, Penn Medicine is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.



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DESIGNATION OF CREDIT

PHYSICIANS: Penn Medicine designates this live activity for a maximum of **8 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

PHYSICIAN ASSISTANTS: AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credits™* from organizations accredited by ACCME or a recognized state medical society. PAs may receive a maximum of **8 Category 1 credits** for completing this activity.

FACULTY

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[Janos L. Tanyi, MD, PhD](#)

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Professor of Engineering
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[Alexander L. Vahrmeijer, MD](#)

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[Richard Meester](#)

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[John Shen](#)

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PLANNING COMMITTEE MEMBERS

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Penn's Abramson Cancer Center

Barbara Lopez
Associate Director, Education and Outreach
Penn's Abramson Cancer Center

DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS

Staff in the Office of Continuing Medical and Interprofessional Education at Penn Medicine (Belinda Rose, CHCP and Vaughn Wurst) and Planning Committee Members (Cynthia Griffo, MS, RN and Barbara Lopez) have reported that they have no relevant financial relationships with any commercial interest related to the content of this educational activity.

Faculty Name

The following faculty and planning committee members have disclosed that they have no relevant financial relationship with any commercial interests related to the content of this educational activity

Ari D. Brooks, MD
Cleopatra Charalampaki, MD, PhD
Edward J. Delikatny, PhD
Amy Lee, MD
Major Kenneth Lee, IV, MD, PhD
E. James Petersson, PhD

Sunil Singhal, MD
Barbara L Smith, MD, PhD
Janos L. Tanyi, MD, PhD
Jie Tian, PhD
Daniel Yoshor, MD

The following faculty and planning committee members have reported the relevant financial relationships with commercial interests related to the content of this educational activity

Faculty Name	Name of Commercial Interest	Relationship
Ronald P. DeMatteo, MD, FACS	Blueprint Medicines	Grants/Research Support
Summer L. Gibbs, PhD	Inherent Targeting, LLC	Board Member
Costantinos G. Hadjipanayis, MD, PhD	NX Development Corporation	Grants/Research Support
	Royalties; Consultant	
	Synaptive	Consultant
	Carl Zeiss Meditec	Lecture Honoraria
Eric R. Henderson, MD	Stryker Orthopaedics	Consultant

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Faculty Name	Name of Commercial Interest	Relationship
John Y.K. Lee, MD	Medtronic, Inc.	Stock Shareholder
Linda W. Martin, MD, MPH	AstraZeneca, Pacira On target Laboratories	Advisor/Review Panel Member
Jason G. Newman, MD, FACS	Medtronic, Inc., Just Right Surgical Visionsense	Consultant Advisor/Review Panel
Quyen Nguyen, MD, PhD	Alume Biosciences, Inc.	Founder, CEO
Daniel A. Orringer, MD	Invenio Imaging NXDC	Stock shareholder Consultant
Brian W. Pogue, PhD	QUEL Imaging, LLC	Grant/Research support
Eben Rosenthal, MD	Vergent Biosciences, Rakuten Medical	Advisor/Review Panel
Baran Sumer, MD, FACS	OncoNano Medicine, Inc, Intuitive, Sanofi-Aventis	Holder of IP, Consultant, Stockholder Consultant
Andrew Tsourkas, PhD	AlphaThera, LLC PolyAurum, LLC	Founder and Scientific Advisory Founder and Scientific Advisory
Robert Vonderheide, MD, DPhil	Fibrogen, Eli Lilly, Janssen	Grants/Research Support
Alexander L. Vahrmeijer, MD	SurgiMab, Quest Medical Imaging	Grants/Research Support



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