AGENDA

7:00 am   In-Person: Check-In, Visit Exhibits and Continental Breakfast
          Virtual: Log-In to Virtual Conference - Visit Virtual Exhibit Hall

7:30 am   Welcome and Introductions
          Sunil Singhal, MD // Thoracic Surgery // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine
          John Y.K. Lee, MD, MSCE // Neurosurgery // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine
          Edward J. (Jim) Delikatny, PhD // Radiology/Optical Bioluminescence // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine
          Robert H. Vonderheide, MD, DPhil // Abramson Cancer Center // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine
          Daniel Yoshor, MD // Neurosurgery // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine
          D. Gregory Farwell, MD, FACS // Otorhinolaryngology – Head and Neck Surgery // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine

SESSION 1: CLINICALLY APPROVED AND PHASE III TRIALS
          Moderators: Eric R. Henderson, MD // Adult and Pediatric Orthopedics // Geisel School of Medicine, Dartmouth / Dartmouth Health
          David E. Holt, BVSc // Surgery // University of Pennsylvania School of Veterinary Medicine

7:45 am   5-ALA in EUROPE – FUTURE STEPS
          Walter Stummer, MD, PhD // Neurosurgery // Münster University Hospital
8:00 am PAFOLACIANINE for Ovarian Cancer
Janos L. Tanyi, MD, PhD // Gynecologic Oncology // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine

8:15 am PAFOLACIANINE for Lung Cancer: Phase 3 US Trial
Linda W. Martin, MD, MPH // Thoracic Surgery // University of Virginia School of Medicine

8:35 am CEA Colon Cancer Trial: Phase 3 European Trial
Alexander L. Vahrmeijer, MD // Oncologic Surgery // Leiden University Medical Center

8:55 am Protease Activated Dye in Breast Cancer Surgery: Phase 3 US Trial
Barbara L. Smith, MD, PhD // Breast Surgery // Harvard Medical School // Massachusetts General Hospital

9:15 am Q&A Panel Discussion

9:25 am Break and Visit Exhibits

SESSION 2: PHASE II CLINICAL TRIALS
Moderator: Karthik Rajasekaran, MD, FACS // Head and Neck Oncologic & Microvascular Reconstructive Surgery // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine

9:45 am Anti-EGFR Antibody Imaging Strategies for Real-Time Surgical and Pathologic Guidance
Eben Rosenthal, MD // Otolaryngology - Head & Neck Surgery // Vanderbilt University Medical Center
10:05 am  Phase II Trial of Intraoperative Molecular Imaging of Lung Cancer with Cathepsin Imaging
Sunil Singhal, MD // Thoracic Surgery // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine

10:25 am  pH Sensitive Dyes in Peritoneal Surface Malignancy
Patrick Wagner, MD, FACS // Surgical Oncology // Allegheny Health Network (AHN) Cancer Institute

10:45 am  pH Sensitive Dyes in Phase II Lung Cancer Trial
David C. Rice, MB, BCh, FRCSI // Thoracic Surgery // M.D. Anderson Cancer Center // Houston, Texas

11:05 am  Q&A Panel Discussion

SESSION 3: PEDIATRIC HOUR
Moderators: Tracy Ma Flanders, MD, MSCE // Pediatric Neurosurgery // Children's Hospital of Philadelphia

Andrew M. Davidoff, MD // Pediatric Surgery // St. Jude Children's Research Hospital

11:15 am  Tumor Paint™ Imaging – Pediatric Brain Tumors – PHASE TWO
Amy Lee, MD // Pediatric Neurosurgery // University of Washington // Seattle Children's Hospital

11:30 am  Clinical Experience Using ICG
Abdelhafeez H. Abdelhafeez, MD // Pediatric Surgery // St. Jude Children’s Research Hospital

11:45 am  Pre-Clinical Experience on Targeted Agents for Pediatric Solid Tumors
Marcus M. Malek, MD, FAAP // Pediatric Surgical Oncology // University of Pittsburgh // UPMC
12:00 pm  Q&A Panel Discussion

12:10 pm  Lunch and Visit Exhibits

Session 4: PILOT AND PHASE I CLINICAL TRIALS
Moderator: Andrew Tsourkas, PhD // Bioengineering // Perelman School of Medicine at the University of Pennsylvania / Penn Medicine

12:55 pm  EGFR Affibody: Design & Implementation of Novel Targeted Tumor Dye
Eric R. Henderson, MD // Adult and Pediatric Orthopedics // Geisel School of Medicine, Dartmouth // Dartmouth Health

1:10 pm  uPAR-Targeting Dye (Fluoguide) For Surgery of Gliomas
Jane Skjoth-Rasmussen, MD, PhD // Adult and Pediatric Neurosurgery // Rigshospitalet / Copenhagen University Hospital / University of Copenhagen

1:25 pm  TumorGlow™ Second Window ICG in Brain Tumors
John Y.K. Lee MD, MSCE // Neurosurgery // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine

1:40 pm  Q&A Panel Discussion

SESSION 5: NORMAL TISSUE DYES
Moderators: E. James Petersson, PhD // Chemistry // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine

Sofya A. Osharovich, PhD // Pharmacology // Perelman School of Medicine at the University of Pennsylvania / Penn Medicine

1:50 pm  Nerve Specific Dyes – Normal Tissue Identification
Ryan K. Orosco, MD // Otolaryngology // University of New Mexico
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<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>2:05 pm</td>
<td>Near Infrared Nerve-Specific Probes for Intraoperative Nerve Visualization</td>
<td>Summer L. Gibbs, PhD / Biomedical Engineering / Oregon Health &amp; Science University (OSHU) School of Medicine / OSHU Knight Cancer Institute</td>
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<tr>
<td>2:20 pm</td>
<td>Ureter Dyes During Urologic Cancer Surgery – Normal Tissue Identification</td>
<td>Richard W. Farnam, MD / Gynecology / Las Palmas Del Sol Healthcare</td>
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<td>2:35 pm</td>
<td>Q&amp;A Panel Discussion</td>
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<td>2:45 pm</td>
<td>Choline Kinase Dyes</td>
<td>Edward J. (Jim) Delikatny, PhD / Radiology / Optical Bioluminescence / Perelman School of Medicine at the University of Pennsylvania / Penn Medicine</td>
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<td>3:00 pm</td>
<td>NIH Perspective of Clinical Trials in Intraoperative Molecular Imaging</td>
<td>Lalitha K. Shankar, MD, PhD / Cancer Imaging Clinical Trials Branch / National Cancer Institute / Division of Cancer Treatment and Diagnosis</td>
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<td>3:15 pm</td>
<td>Q&amp;A Panel Discussion</td>
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<tr>
<td>3:25 pm</td>
<td>Fluorescence Lifetime Imaging with Dyes</td>
<td>Anand Kumar, PhD / Radiology / Optical Molecular Imaging / Harvard Medical School / Massachusetts General Hospital</td>
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<tr>
<td>3:40 pm</td>
<td>Label–Free Fluorescence Lifetime Imaging</td>
<td>Laura Marcu, PhD / Biomedical Engineering / Neurological Surgery / University of California</td>
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3:55 pm  Photoacoustic Imaging  
**Lei Li, PhD** // Medical Engineering // California Institute of Technology // Caltech

4:10 pm  MultiSpectral Camera Imaging  
**Viktor Gruev, PhD** // Electrical and Computer Engineering // University of Illinois at Urbana-Champaign

4:25 pm  Q&A Panel Discussion

4:35 pm  PANEL DISCUSSION – FUTURE UNMET NEEDS (all moderators)  
**Moderator: Sunil Singhal, MD** // Thoracic Surgery // Perelman School of Medicine at the University of Pennsylvania // Penn Medicine

5:00 pm  CME Concludes

5:05 pm  Refreshments | Break | Visit Exhibits

5:35 pm  pH Sensitive Dyes  
**Baran Sumer, MD** // Otorhinolaryngology // University of Texas // UT Southwestern Medical Center

6:00 pm  Conference Concludes

**Post Conference Details**

After the conference has concluded, all attendees will receive an email from Penn CME with instructions on how to complete the post-test, evaluation, claim credit and obtain a certificate.

Look for the email early NEXT WEEK.

If you missed the Pre-Test, you will still be eligible to obtain your certificate after you complete the Post-Test and Evaluation.

A **Certificate of Participation** is available to attendees who are not physicians or nurses.
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.

PennMedicine.org/Abramson/PSIMI2022
Designation of Credit

PHYSICIANS: Penn Medicine designates this live activity for a maximum of 8.5 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 8.5 Category 1 credits for completing this activity.

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PennMedicine.org/Abramson/PSIMI2022
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Disclosure of Relevant Financial Relationships

Staff in the Office of Continuing Medical and Interprofessional Education (CMIE) (Bruce Brod, MD, Vaughn Wurst and Belinda Rose, CHCP), and the listed Planning Committee Members (Cynthia Griffio, MS, RN, Barbara Lopez and Lynn Schuchter, MD) have reported that they have no relevant financial relationships with any ineligible companies related to the content of this educational activity.

The following faculty members have disclosed that they have no relevant financial relationships with any ineligible companies related to the content of this educational activity:

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Wesley B. Baker, PhD  Ryan K. Orosco, MD, FACS
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Edward J. (Jim) Delikatny, PhD  E. James Petersson, PhD
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D. Gregory Farwell, MD, FACS  David C. Rice, MB, BCh, FRCSI
Tracy Ma Flanders, MD, MSCE  Eben Rosenthal, MD
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Viktor Gruev, PhD  Sunil Singhal, MD
David E. Holt, BVSc  Barbara L. Smith, MD, PhD
Anand Kumar, PhD  Janos L. Tanyi, MD, PhD
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John Y.K. Lee, MD, MSCE  Robert H. Vonderheide, MD, DPhil
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Marcus M. Malek, MD, FAAP  Daniel Yoshor, MD
Faculty Name
The following faculty and planning committee members have reported the relevant financial relationship with ineligible companies related to the content of their presentation. Mitigation has been done.

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<tr>
<th>Faculty Name</th>
<th>Name of Commercial Interest</th>
<th>Relationship</th>
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<tr>
<td>Eric R. Henderson, MD</td>
<td>Stryker</td>
<td>Consultant</td>
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<td>Jane Skjoth-Rasmussen, MD, PhD</td>
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<td>Mark Anthony Sellmyer, MD, PhD</td>
<td>Bristol-Myers Squibb</td>
<td>Grant/Research Support</td>
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<td>Ownership</td>
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<td>Linda W. Martin, MD, MPH</td>
<td>Johnson &amp; Johnson</td>
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<td>Astra Zeneca, Genentech</td>
<td>Advisor</td>
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<td>On Target Laboratories</td>
<td>Advisory/Review Panel</td>
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<tr>
<td>Walter Stummer, MD, PhD</td>
<td>Medexus, Zeiss Meditec, Photonamic</td>
<td>Grant/Research Support</td>
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<td>Andrew Tsourkas, PhD</td>
<td>AlphaThera, Inc.</td>
<td>Royalties or patent</td>
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<td>Prescient Therapeutics</td>
<td>beneficiary</td>
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