INTRAOPERATIVE MOLECULAR IMAGING

PRECISION SURGERY

1ST ANNUAL CLINICAL TRIALS UPDATE
In Collaboration with World Molecular Imaging Society

Friday, November 2, 2018
7:00 am – 5:30 pm
Philadelphia, PA

A CME-CERTIFIED CONFERENCE
Most conference materials will be available online.
Please bring your electronic device to view presentations in real time.

DINNER RECEPTION
DATE: Thursday November 1, 2018
TIME: 6:30 pm to 8:30 pm
LOCATION: Jordan Medical Education Center // Perelman Center for Advanced Medicine
3400 Civic Center Boulevard // Philadelphia, PA 19104
PROGRAM OVERVIEW

Penn’s Abramson Cancer Center and the Center for Precision Surgery in collaboration with the World Molecular Imaging Society 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

- 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
- Explore opportunities for creation of surgeon billing codes (CPT) for intraoperative molecular imaging

TARGET AUDIENCE

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.

REGISTRATION

<table>
<thead>
<tr>
<th>Category</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Penn Physicians</td>
<td>$200</td>
</tr>
<tr>
<td>Industry (non-exhibitor)</td>
<td>$300</td>
</tr>
<tr>
<td>Non-Penn residents, fellows, nurses and other healthcare professionals</td>
<td>$100</td>
</tr>
<tr>
<td>Penn faculty, staff, residents, fellows and nurses</td>
<td>$50</td>
</tr>
<tr>
<td>Students</td>
<td>no fee</td>
</tr>
</tbody>
</table>

Registration fee includes dinner Thursday night for registrants, breakfast and lunch on Friday and access to course materials. Parking fees are not covered.

Hotel reservation is separate from the meeting registration and is the responsibility of the participant.

For lodging, directions and parking information visit PennMedicine.org/PSIMI2018

For additional information please contact Barbara Lopez at lopezb@pennmedicine.upenn.edu
SESSION 1:
PHASE III CLINICAL TRIALS IN INTRAOPERATIVE MOLECULAR IMAGING FOR CANCER SURGERY

7:35 am
Approval for ALA in High Grade Gliomas - Lessons Learned
Walter Stummer, MD, PhD // Neurosurgery // Germany

8:05 am
Folate NIR Dye for Ovarian Cancer: Phase 3 US Trial
Janos L. Tanyi, MD, PhD // Gynecologic Oncology // USA

8:35 am
CEA Colon Cancer Trial: Phase 3 European Trial
Alexander L. Vahrmeijer, MD // Oncologic Surgery // The Netherlands

9:05 am
Discussion

9:35 am
Coffee Break

SESSION 2:
PHASE II CLINICAL TRIALS IN INTRAOPERATIVE MOLECULAR IMAGING FOR CANCER SURGERY

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 // USA

10:20 am
VEGF Imaging of Tumors
Gooitzen van Dam, MD, PhD // Surgery // The Netherlands

10:40 am
Folate NIR Dye for Lung Cancer
Sunil Singhal, MD // Thoracic Surgery // USA

11:00 am
Use of a Cathepsin-Activated Fluorescent Imaging System for Intraoperative Detection of Positive Breast Lumpectomy Margins
Barbara L Smith, MD, PhD // Oncologic Surgery // USA

11:20 am
Discussion

11:40 am
Lunch

REGISTER ONLINE: PennMedicine.org/PSIMI2018
SESSION 3:
PILOT AND PHASE I CLINICAL TRIALS IN INTRAOPERATIVE MOLECULAR IMAGING FOR CANCER SURGERY

12:30 pm
EGFR Affibody: Design and Implementation of Novel Targeted Tumor Dye
Brian Pogue, PhD // Surgery // USA

12:50 pm
Intracranial Fluorescent Guided Surgical Lessons: From Visible to NIR Fluorophores
David W. Roberts, MD // Neurosurgery/Neurology // USA

1:10 pm
TumorGlow™ Second Window ICG & Folate NIR in Brain Tumors
John Y.K. Lee MD, MSCE // Neurosurgery // USA

1:25 pm
Tumor Paint™ Imaging – Pediatric Brain Tumors
Amy Lee, MD // Pediatric Neurosurgery // USA

1:40 pm
5-ALA in Other Brain Tumors and Photodynamic Therapy
Costas G. Hadjipanayis, MD, PhD // Neurosurgery // USA

1:55 pm
Fluorescein in Brain Tumors
Jeffrey N. Bruce, MD, FACS // Neurological Surgery // USA

2:10 pm
TumorGlow™ Second Window ICG in Head and Neck Tumors
Jason G. Newman, MD, FACS // Otorhinolaryngology: Head and Neck Surgery // USA

2:25 pm
Discussion

3:05 pm
Coffee Break

SESSION 4:
EXPLORATION OF SURGEON BILLING CODES FOR INTERPRETATION OF INTRAOPERATIVE MOLECULAR IMAGING

3:30 pm
Overview of CPT/RUC in Healthcare Reimbursement and Coverage Determinations
Scott Manaker MD, PhD // Pulmonary and Critical Care // USA

3:50 pm
Steps to Apply for a Novel CPT Code
Julie Painter, MBA, CCVTC, CPMA // USA

4:10 pm
Physician Participation in Development of Physician Work and Practice Expense: Recommendations for a new CPT code
Joseph Cleveland, MD // Cardiothoracic Surgery // USA

4:30 pm
CMS/FDA Parallel Review Pathway and Alternative Options
Brian P. Carey // FoleyHoag LLP // USA

4:50 pm
Discussion & Steps for Future

5:25 pm
Conference Closing
John Y.K. Lee, MD, MSCE
Associate Professor of Neurosurgery and Otorhinolaryngology: Head and Neck Surgery
Medical Director, Gamma Knife Center
Perelman School of Medicine at the University of Pennsylvania/Penn Medicine
Philadelphia, Pennsylvania, USA

Sunil Singhal, MD
William Maul Measey Associate Professor in Surgical Research
Director, Thoracic Surgery Research Laboratory
Vice Chair of Research, General Surgery
Perelman School of Medicine at the University of Pennsylvania/Penn Medicine
Philadelphia, Pennsylvania, USA

Jason G. Newman, MD, FACS
Associate Professor of Otorhinolaryngology: Head and Neck Surgery
Co-Director, Cranial Base Center
Director, Head & Neck Surgery, Pennsylvania Hospital
Perelman School of Medicine at the University of Pennsylvania/Penn Medicine
Philadelphia, Pennsylvania, USA

Janos L. Tanyi, MD, PhD
Assistant Professor of Obstetrics and Gynecology: Gynecologic Oncology
Perelman School of Medicine at the University of Pennsylvania/Penn Medicine
Philadelphia, Pennsylvania, USA

Jeffrey N. Bruce, MD, FACS
Edgar M. Housepian Professor of Neurological Surgery
Director, Bartoli Brain Tumor Research Laboratory
Co-director, Brain Tumor Center
Columbia University/New York-Presbyterian
New York, New York, USA

Brian P. Carey
Partner, Co-Chair, Administrative Law Department
Foley Hoag LLP
Boston, Massachusetts; Washington, D.C., USA

Joseph Cleveland, MD
Professor, Surgery: Cardiothoracic
University of Colorado
Denver, Colorado, USA

Gooitzen van Dam, MD, PhD
Professor of Surgery
University of Groningen, Groningen, The Netherlands

Constantinos G. Hadjipanayis, M.D., Ph.D.
Professor of Neurosurgery and Oncological Sciences
Chair of Neurosurgery, Mount Sinai Downtown Union Square/Beth Israel
Director of Neurosurgical Oncology, Mount Sinai Health System
Director, Brain Tumor Nanotechnology Laboratory
Icahn School of Medicine at Mount Sinai
New York, NY, USA
Amy Lee, MD
Associate Professor of Neurological Surgery
Seattle Children’s Hospital and University of Washington
Seattle, Washington, USA

Scott Manaker MD, PhD
Professor of Medicine, Pulmonary and Critical Care
Director of Clinical Documentation and Vice Chair for Regulatory Affairs, Department of Medicine
Physician Advisor, Office of Billing Compliance
Perelman School of Medicine at the University of Pennsylvania/Penn Medicine
Philadelphia, Pennsylvania, USA

Julie Painter, MBA, CCVTC, CPMA
Coding and Billing Manager
The Society of Thoracic Surgeons

Brian Pogue, PhD
Professor of Surgery
Geisel School of Medicine at Dartmouth
Professor of Engineering
Thayer School of Engineering at Dartmouth
Hanover, New Hampshire, USA

David W. Roberts, MD
Professor of Surgery (Neurosurgery) and Neurology
Geisel School of Medicine at Dartmouth
Hanover, New Hampshire, USA

Eben Rosenthal, MD
Anne and John Doer Director of Cancer Services
Professor, Otolaryngology: Head & Neck Surgery
Faculty, Molecular Imaging Program at Stanford
Stanford University School of Medicine /Stanford Medicine
Stanford, California, USA

Barbara L Smith, MD, PhD
Professor of Surgery, Harvard Medical School
Director, Breast Program, Massachusetts General Hospital
Boston, Massachusetts, USA

Walter Stummer, MD, PhD
Professor and Chairman of Neurosurgery
Münster University Hospital
Münster, Germany

Alexander L. Vahrmeijer, MD
Oncologic Surgeon
Research Leader Image-Guided Surgery
Leiden University Medical Center
Leiden, The Netherlands
ACCREDITATION AND DESIGNATION OF CREDIT

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.

DESIGNATION OF CREDIT
PHYSICIANS: Penn Medicine designates this live activity for a maximum of 8.25 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 8.25 Category 1 credits for completing this activity.

DISCLOSURES
Penn Medicine, Office of Continuing Medical and Interprofessional Education, adheres to the ACCME Standards for Commercial Support. Faculty and planner’s disclosure information will be made available in the conference materials and syllabus. Faculty members are also expected to disclose to participants any discussion of off-label and / or investigational use of pharmaceutical products or devices within their presentations.

CANCELLATION POLICY
The University reserves the right to cancel or postpone any conference due to unforeseen circumstances. In the event of cancellation or postponement, the University will refund registration fees but is not responsible for any related costs or expenses to participants, including cancellation fees assessed by hotels, airlines and travel agencies.

In order to process refunds for conference withdrawals, we must receive cancellation in writing no later than 30 days prior to event.

SERVICES FOR THE DISABLED
If special arrangements are required for an individual with a disability to attend this meeting, please contact lopezb@pennmedicine.upenn.edu, no later than 30 days prior to event.

NONDISCRIMINATION STATEMENT
The University of Pennsylvania values diversity and seeks talented students, faculty and staff from diverse backgrounds. The University of Pennsylvania does not discriminate on the basis of race, color, sex, sexual orientation, gender identity, religion, creed, national or ethnic origin, citizenship status, age, disability, veteran status or any other legally protected class status in the administration of its admissions, financial aid, educational or athletic programs, or other University administered programs or in its employment practices. Questions or complaints regarding this policy should be directed to the Executive Director of the Office of Affirmative Action and Equal Opportunity Programs, Sansom Place East, 3600 Chestnut Street, Suite 228, Philadelphia, PA 19104- 6106; (215) 898-6993 (Voice) or (215) 898-7803 (TDD).