

**Center for Molecular Imaging Innovation & Translation**  
 Business Plan FY 2014-2015

**1) Executive Summary**

Center for Molecular Imaging Innovation and Translation (CMIIT) is a group within SNMMI organized to provide professional networking and educational and scientific programs for molecular imaging professionals – including scientists, physicians, technologists, and laboratory professionals, while simultaneously serving as a resource for development and implementation of SNMMI policy in this specialized area.

**2) Mission**

To engage the molecular imaging community and leverage the SNMMI infrastructure to advance the adoption of emerging molecular imaging technologies and probes in preclinical and clinical applications.

CMIIT works towards this vision with the values of excellence, integrity, and inclusivity of diverse disciplines, including fields that are not conventionally associated with nuclear medicine but that contribute to translating molecular imaging innovation.

**3) CMIIT Leadership**

Officers

President: Jonathan McConathy, MD, PhD  
 Vice President: Buck Rogers, PhD  
 Secretary/Treasurer: Neil Vasdev, PhD  
 Immediate Past President: Todd E. Peterson, PhD

Term

June 2014- June 2016  
 June 2014 – June 2016  
 June 2014 – June 2016  
 June 2014 – June 2016

Directors

Steve Y. Cho, MD  
 Cathy S. Cutler, PhD  
 W. Barry Edwards, PhD  
 Edward E. Graves, PhD  
 Dima Hammoud, MD  
 Peter Herscovitch, MD

June 2014 – June 2017  
 June 2014 – June 2017  
 June 2013 – June 2016  
 June 2012 – June 2015  
 June 2014 – June 2017  
 June 2012 – June 2015

Jeffrey Norenberg, PharmD  
 Hyunsuk Shim, PhD  
 Aileen M. Staffaroni, MS, CNMT  
 Andrew Tsourkas, PhD  
 John F. Valliant, PhD

June 2013 – June 2016  
 June 2014 – June 2016  
 June 2013 - June 2016  
 June 2012 – June 2015  
 June 2012 – June 2015

Intern (non-voting)

Eszter Boros, PhD

June 2013 – June 2015

Ex-Officio (non-voting)

Prem Soman, MD (CVC President)  
 Neil Petry, MS, RPh, BCNP (RPSC President)

June 2014 – June 2015  
 June 2014 – June 2015

**4) Current Status**

**A. Financial**

The financial condition of CMIIT is good. As of May 2014, CMIIT has a total revenue of \$10,945. This includes a stipend of \$1000 from the 2014 Mid-Winter Meeting. Expenses total approximately \$7,603. Revenue is generated through annual membership dues, which are \$15.00 per member.

## B. Membership

CMIIT membership is 647 as of August, 2014. The annual membership counts for 2010 – 2014 are shown below:

<u>Year</u>	<u>Membership Count</u>
2014	647
2013	676
2012	1199
2011	1820
2010	2573

## C. Member Benefits

- Regular copies of *MI Gateway*, the quarterly newsletter of the CMIIT
- A wide range of educational opportunities related to multimodality molecular imaging across preclinical, translational and clinical applications
- Information on grants, awards and other funding opportunities directed to molecular imaging research, including the SNMMI Annual Young Investigator and Lab Professional Awards
- Opportunities to become involved in issues of interest and concern to you – including best practices for preclinical imaging, the development of new tracers and emerging technologies
- Representation of your professional interests to SNMMI leadership
- The opportunity to gain leadership exposure within the molecular imaging community
- A \$20.00 discount for SNMMI sponsored categorical session.

## 5) Accomplishments for 2013-2014

A. CMIIT has several task forces that actively work to contribute to the goals of the SNMMI Strategic Plan. The following are their accomplishments:

### a. ***Program Committee Task Force***

The CMIIT Program task force developed educational sessions for the 2014 SNMMI Mid-Winter Meeting and Annual Meeting.

CMIIT collaborated with the Clinical Trials Network to host the following session during the Mid-Winter Meeting in Palm Springs, CA., *Summit/CTN: Molecular Imaging of Response to Therapy*. This session was attended by 170 people and was the highest attended session at the Mid-Winter meeting.

CMIIT hosted the following CE and Categorical Sessions during the 2014 Annual Meeting:

- a. Lymphoma Imaging
- b. Advancement in Prostate Cancer Imaging
- c. Advanced MRI Based Molecular Imaging Techniques
- d. Molecular Imaging of Infection and Inflammation: Targeting the Host
- e. Multimodality Imaging of Infection and Inflammation: Targeting the Pathogen
- f. Fluorine (<sup>19</sup>F) MR Imaging
- g. Imaging Proteinopathies in Neurodegenerative Diseases
- h. Theranostics
- i. Imaging of Key Pathways in Cancer
- j. PET/MRI
- k. Towards Standardization and Validation of Fluorescence Molecular Imaging: Accelerating Translation
- l. Quality Control for Preclinical Imaging Studies – *hosted by the Preclinical Imaging Task Force*
- m. Molecular Imaging and Targeted Therapeutics (Categorical Session)

CMIIT sponsored five Emerging Technology Sessions and one Basic Science Summary Session for the 2014 SNMMI Annual Meeting in St. Louis, MO. A special session was planned by the CMIIT Intern, Ezster Boros, PhD, entitled, *Quo Vadis Discipulus? – Early Career Development and Transition Panel Discussion*. (Non-CE).

Emerging Technology Sessions (Non-CE):

1. Cerenkov Imaging
2. Identifying Novel Sentinel Lymph Nodes
3. Intraoperative Imaging
4. How to Write Successful NIH Grants
5. Emerging Themes in Metabolic Imaging and Diabetes

**b. Preclinical Imaging Task Force**

1. **Preclinical White Paper**- The paper on Methods reporting for preclinical imaging papers was published in the journal *Molecular Imaging*. An article appeared in the Newsline section of *JNM* announcing the publication of this paper.
2. **Preclinical Imaging Curriculum**- The Preclinical Task Force has reviewed the modules as identified for the "Preclinical Imaging in Small Laboratory Animals" – PRIMA workshop hosted by Bernd Pichler, PhD. The Preclinical Task Force members have given consideration into agreeing to a Memorandum of Understanding with several other professional societies, including EANM and WMIS, regarding coordination to establish a common curriculum and the offering of courses based on this curriculum. This MOU is currently under revision to come to terms with which all of the Societies can agree. The next PRIMA workshop is scheduled for the upcoming WMIC in Seoul. A revised schedule of a "two-days-before" and "two-days-after" the WMIC workshop should help to encourage additional attendance. The CMIIT Preclinical Task Force will once again be assisting with speakers and topics.
3. **Symposium on Translational Molecular Imaging**  
CMIIT is currently working on plans to co-sponsor a symposium with the World Molecular Imaging Society (WMIS) to bring together academia, industry, and government stakeholders (NIH, FDA, CMS). The symposium will consist of structured sessions with time for discussion to identify barriers and solutions. The symposium is planned for sometime in 2015. The MOU is signed and the co-chairs are Kim Kelly, PhD and Jason Lewis, PhD.
4. **Johns Hopkins Preclinical Imaging Workshop**  
Johns Hopkins hosted the In Vivo Preclinical Imaging Workshop on March 11-13, 2014. The workshop included Didactic and Hands-on training. The SNMMI/CMIIT provided a "grant" for \$5,000 with the stipulation that the funding is repaid if there are funds raised for the meeting. The SNMMI handled the registration and website for the meeting. Over 50 individuals attended the three-day workshop. There is already discussion for a Satellite Symposium at the 2015 SNMMI Annual Meeting in Baltimore, MD.
5. **Preclinical Imaging – Washington University Satellite Symposium**  
SNMMI, under the leadership of CMIIT, co-sponsored a satellite symposium with Washington University on June 6, 2014 entitled, *Molecular Imaging: From Target to Translation* (Non-CE). The symposium was comprised of three didactic sessions with time allotted for panel discussion. A preclinical PET/CT/Optical Imaging Practicum was also offered on June 5, 11, and 12, 2014 for hands-on experience in preclinical imaging techniques. Overall, the symposium was attended by 220 individuals.

**c. Membership and Innovation Task Force**

As of August 1, 2014 CMIIT has 647 members, compared to 666 in June 2013. The MI Journal is open access and does not require subscriptions. CMIIT Pre-renewal email blast was sent to all CMIIT Members highlighting the benefits of a CMIIT membership.

**d. Nominating Task Force**

Voting opened on April 17, 2014 and voting closed on May 14, 2014. The election was e-mailed to the entire CMIIT membership. The following members were elected to the CMIIT Board of Directors:

- Buck Rogers, PhD, Vice-President
- Neil Vasdev, PhD, Secretary/Treasurer
- Steve Cho, MD, Board Member
- Cathy Cutler, PhD, Board Member
- Dima Hammoud, MD, Board Member
- Hyunsuk Shim, PhD, Board Member

**e. Translational Curriculum Taskforce**

The Translational Researcher Curriculum white paper was reviewed by the CMIIT Board of Directors. Feedback is being consolidated on the MI Translational Scientists Manuscript into one document.

**f. Value Proposition of Molecular Imaging**

CMIIT created a new Task Force in 2014 to address the Value proposition of Molecular Imaging. This task force is made up of CMIIT Board members and Industry members. There is a great need to determine why industry and others see value in molecular imaging as well as what challenges they face. This task force is chaired by Kim Kelly, PhD. Some of the things the Task Force is planning include: the development of a white paper on the types of things researchers need to consider to determine whether targets and probes to image them might be commercially viable (expense, business perspective, impact on clinical care, etc.); the creation of a series of publications, educational offerings (webinars, symposia, etc.), and hosting roundtable discussions and stakeholder meetings.

**g. Editorial Task Force**

- CMIIT e-Newsletter is distributed on the 1<sup>st</sup> Friday of every month in 2014 to over 647 members.
- The 2014 Q2 issue of MI Gateway was distributed by email on May 20, 2014.
- Production on the 2014 Q3 issue of MI Gateway is underway.
- CMIIT New Member Packets are sent to members the first week of every month, which started in September, 2012.

**h. Website Task Force**

The new SNMMI website officially launched in 2014. SNMMI staff updated the website.

**B. Cambridge University Books**

The *Molecular Imaging: An Introduction* book, co-authored by Michael Graham, PhD, MD, Hossein Jadvar, MD, PhD and Heather Jacene, MD is well underway. Most of the chapters have been submitted with a few being authored by additional writers. Another textbook *Essentials of Molecular Imaging*, co-authored by Henry VanBrocklin, Carolyn Anderson, Jonathan McConathy, Jeff Norenberg, and Todd Peterson, is also in progress and expected to be completed in 2014.

**C. AACR/SNMMI Joint Meeting**

SNMMI and the American Association for Cancer Research (AACR) co-hosted the “*State-of-the-Art Imaging in Cancer Biology and Therapy*” meeting in San Diego, CA, February 27<sup>th</sup> through March 2<sup>nd</sup>, 2013. Carolyn Anderson, PhD from SNMMI and David Piwnica-Worms, MD, PhD from AACR served as the co-chairs for the meeting. The SNMMI, through the efforts of the CMIIT leadership are once again working on plans for another joint meeting. The 2015 meeting will be co-chaired by Carolyn Anderson, PhD, David Piwnica-Worms, PhD, and Chris Contag, PhD. The meeting will be held at the Hard Rock Hotel in San Diego, CA, February 11-15, 2015. This collaboration is very special for the SNMMI in that it brings together researchers within the

cancer community. Once again, the SNMMI will handle the meeting logistics and AACR will handle the education component. Marketing and Development responsibilities will be shared with AACR. We are very excited for the 2<sup>nd</sup> biennial meeting and look forward to this continued relationship.

#### **D. Scientific Laboratory Professionals Award**

The CMIIT Scientific Laboratory Professionals Awards were presented at the 2014 SNMMI Annual Meeting in St. Louis, Missouri. Each award is for \$1,000 plus free Annual Meeting registration. The award is funded by the Educational and Research Foundation for Nuclear Medicine and Molecular Imaging. The four 2014 Scientific Laboratory Professional Award Winners are:

1. Jan de Swart
2. Elaine Jagoda, MS
3. Shalini Jaiswal, MS, CNMT, ARRT
4. Valerie Ann Longo, BS

**Young Investigator Awards** - These awards are funded by the Education and Research Foundation for Nuclear Medicine and Molecular Imaging. The 2014 CMIIT YIA winners are

1. Brian Zeglis – 1<sup>st</sup> Place, \$1,000
2. Paul Ellison – 2<sup>nd</sup> Place, \$500
3. Christina Lewis – 3<sup>rd</sup> Place, \$250

#### **E. 8<sup>th</sup> Annual CMIIT/RPSC Poster Mixer and Award Session**

CMIIT co-sponsored, for the 8th year, a Poster Session Mixer (with financial support from ABX, Altor BioScience, Becquerel & Sievert Co, Ltd, The Gollman Group, e-Century Publishing, Blackthorn Associates, LLC, ImaginAb, Ionetix, isoSolutions, Navidea, inviCRO, LLC, MILabs, Promega, ROTEM, Sequoia SciTech, Synfast Consulting, Trifol Imaging, xstrahl Life Sciences, UPPI, and Trasis ) to encourage poster attendance and stimulate Center membership. This year, sponsorship reached the second highest with a total of \$19,700, which included a \$4,000 grant from Navidea. The poster presentations were included in the educational program in "meet the author" style. There was a special reception for RPSC and CMIIT members only prior to the opening of the Poster Mixer. Both the reception and Poster Mixer were very successful.

### **6) Goals and Programs for 2014-2015:**

CMIIT will continue the work of its task forces and other outreach efforts to contribute to Goals A, B, C, D, and E of the SNMMI Strategic Plan. In addition to the activities already planned through the CMIIT task forces, the following items are also developing:

#### **a. Optical Imaging Task Force**

CMIIT plans to create a new Optical Imaging task force. Initial work towards expanding to the optical imaging community was successful last year; however, not much progress has been made since. It was recommended that the Optical Imaging Task Force become a task force under CMIIT to ensure the continued movement and focus of these efforts. There is interest in organizing an incubator meeting with the Optical Society of America.

#### **b. Education**

It is important that CMIIT continue to educate non-imaging scientists about the future of molecular imaging. Continuing with American Association of Cancer Research (AACR) meeting as well as other societies that have an interest in this area will be beneficial to growing interest in molecular imaging. CMIIT is sponsoring a session on Molecular Imaging of Inflammation: Current Practice and Emerging Applications, at the 2015 SNMMI Mid-Winter Meeting in San Antonio, TX. CMIIT plans to continue offering educational sessions, including emerging technology sessions at the 2015 SNMMI Annual Meeting in Baltimore, MD.

**c. Nano-Technology**

Several years ago, CMIIT sponsored a nano-technology meeting. The discussion during that meeting was very useful in identifying the role of nano-technology in molecular imaging of cancer. There was a National Center for Research Resources (NCRR) activity focusing on nano-technology that may be of interest to SNMMI and CMIIT.

**d. Translation and Advancement of Molecular Imaging Agents**

The National Institute of Biomedical Imaging and Bioengineering is currently conducting research on preclinical and basic science molecular imaging agents and why they are not being translated to the clinic. This is an area of importance to the Clinical Trials Network and CMIIT. Both groups plan to work together on this initiative. In addition, there is a lot of varying information within the field about what it costs to do a clinical trial. Identifying the cost of bringing companion diagnostics through the system would be interesting to determine. This could be a huge area for growth within molecular imaging.

**e. Preclinical Imaging**

The preclinical guidance document is a useful tool that should be disseminated to a wider audience. Streamlining the preclinical research that is submitted to journals will change the way preclinical imaging is managed. CMIIT will consider workshops focusing on quality assurance and quality control that coincides with the guidance document. The future of preclinical imaging is going to be focused on good laboratory practice (GLP). If labs can get this certification and training from SNMMI, this would be a potential area of growth for SNMMI.

CMIIT has recommended that both the Journal of Nuclear Medicine and the Molecular Imaging journal inform their submitters that preclinical research submitted to the journals must follow the criteria identified within the preclinical guidance document. The JNM editors discussed this recommendation and decided to add the following language to the author guidelines: "For preclinical studies, the authors are encouraged to follow the "Guidance for Methods Descriptions Used in Preclinical Imaging Papers" published in *Molecular Imaging* Vol 12, No 7 (October 2013)."

**f. Industry Partners Circle**

CMIIT did not have funds available to continue this meeting in 2014 but would like to continue the open communication between CMIIT and our Industry Partners and will be looking at ways to continue to have this meeting in the future.

**g. Increase CMIIT Membership**

CMIIT will continue to work on increasing membership in the Center through outreach efforts, continuing education and task force initiatives.

**7) Budget and Resource Requirements**

In addition to the items included in this budget, CMIIT has also requested grant funding, in the amount of \$5,750 as part of the SNMMI request to the Education and Research Foundation. This includes 4 Laboratory Professional Awards (in the amount of \$4,000) and 3 Young Professional Awards (\$1,000 – 1<sup>st</sup> place, \$500 – 2<sup>nd</sup> place and \$250 – 3<sup>rd</sup> place). The following projects and programs will be submitted to the SNMMI, Inc. for consideration when planning the FY2015 budget. Funding for:

1. Industry Partner's Meeting in 2015
2. SNMMI/AACR 2015 Meeting
3. Translational Workshop on Molecular Imaging
4. Optical Society of America joint Incubator Meeting