Center Report to the SNMMI Board of Directors  
January 2020

BRAIN IMAGING COUNCIL

Council Mission: The Brain Imaging Council is a group within The Society of Nuclear Medicine and Molecular Imaging, Inc., hereafter referred to as the Society, dedicated to the scientific interchange of ideas among Society members who have interest in brain imaging using radiopharmaceuticals. The overall mission of the Brain Imaging Council is to:

(a) provide a forum for members with similar interests  
(b) provide to membership expertise in brain imaging using radiopharmaceuticals  
(c) foster research and education in brain imaging using radiopharmaceuticals, and stimulate novel radionuclide therapy in the area of neuro-oncology  
(d) provide outreach to other professionals and organizations  
(e) nurture new membership into the Society  
(f) serve as a resource to SNMMI Leadership

Council Mission and SNMMI’s Strategic Plan: The work of the Brain Imaging Council applies to the following goals and objectives in SNMMI’s Strategic Plan:

Goal B: SNMMI has advanced the development and approval of nuclear medicine and molecular imaging technologies.

Objective 1: Encourage and promote research in the field.
   a) Increase the number of facilitated collaborative research efforts among academic sites with industry.  
   b) Reach out to experts in the field to involve them in work groups or coalitions that are producing new studies and papers.  
   c) Support and foster collaboration between academia and industry; academia looks to industry to translate initial discoveries in patient care into new technology.

Objective 2: Increase the number of initiatives targeting the discovery and validation of diagnostic radiopharmaceuticals, radiotherapeutics and instrumentation.
   a) Organize meetings/events to involve experts from the field in identifying high-impact, unmet clinical needs.

Goal F: SNMMI has the organizational strength and sustainability to lead the field in a dynamic healthcare landscape.

Objective 1: Strengthen membership numbers.  
   d. Ensure enthusiasm.  
      iii. Create a sense of community and networking opportunities among our members.
Update on Council Programs:

2020 SNMMI Mid-Winter Meeting Session: **Neurology Track Program**

1) **Basics in Neuroimaging: Anatomy, Radiotracers and Best Practices**
   - Neuroimaging Radiotracers (PET/SPECT)
   - Neuroanatomy for Imaging Interpretation
   - Best Practices, Imaging Artifacts and Pitfalls
   - Operationalizing your SPECT and PET Brain Imaging: Technologist perspective

2) **Improve your knowledge in PET Quantification and Artificial Intelligence**
   - Software Imaging Interpretation
   - Diagnostic Statistical Mapping (3D-SSP/SPM)
   - Understanding Full Quantification
   - Artificial Intelligence

3) **Planar to Hybrid Brain Imaging**
   - Cisternography and Shunt Patency
   - Brain Death
   - SPECT for Brain Applications
   - PET/MR for Brain Applications

4) **FDG-PET for Dementia**
   - Setting the Stage for Dementia Biomarkers (A/T/N)
   - Structured Method for the Interpretation of FDG PET
   - Neurologist’s Perspective on Imaging for Dementia

5) **”MRI, Amyloid PET, and Tau PET: The current status”**.
   - An MRI scan complements and enhances the clinical diagnosis of Alzheimer’s disease and other dementing disorders
   - Amyloid Imaging
   - Tau Imaging

6) **Movement Disorders**
   - Neurologist’s Perspective on Imaging for Movement Disorders
   - Optimizing your Dopamine Transporter SPECT Program
   - PET in the Evaluation of Movement Disorders

7) **Brain Tumors and Encephalitis**
   - Emerging Use of Brain FDG-PET in Autoimmune Limbic Encephalitis
   - The Role of Nuclear Medicine in the Management of Brain Tumors
   - Brain Tumors Case Presentation
8) Molecular Imaging in Traumatic Brain Injury and Epilepsy
   • Imaging of Brain Trauma
   • SPECT in Epilepsy
   • PET in Epilepsy

9) Neurosciences
   • Imaging of neuroinflammation
   • Synaptic density Imaging
   • PET/MRI

10) Nuclear Medicine in Psychiatric Diseases
    • Role of PET Molecular Imaging in Schizophrenia
    • PET Studies of Substance Abuse and Tobacco Use
    • PET in Autism Spectrum Disorders
    • Fragile X

11) Bring your Interesting and Challenging Cases for Discussion
    • Cases on Epilepsy
    • Cases on Dementia
    • Cases on Parkinsonism

2020 SNMMI Annual Meeting Categorical Session: Neurodegeneration: From Current Clinical Applications to New Advancements

2020 SNMMI Annual Meeting CE Session:
   • Fundamentals of Brain SPECT/PET scan interpretation in Dementia (Nuts and Bolts)
   • Kuhl Lassen Award
   • New applications for Hybrid PET/MR
   • Brain Imaging Read with the Experts (Nuts and Bolts)
   • Movement Disorders

Action Items in Progress/Pending:
   • Preparation for 2020 Mid-Winter and Annual Meeting