



**Saturday, March 3, 2018**

6:30 am – 7:00 am

**Breakfast with the Vendors**

7:00 am – 9:30 am

**Pre-clinical Advanced SPECT/PET Imaging - Implications on Clinical Image Improvements**

**Moderators: A. Hans Vija, PhD and Ernest Garcia, PhD**

This session will cover the most recent breakthroughs in pre-clinical and clinical imaging with innovative multi-pinhole and other advanced technologies, such as Compton and Nuclear Polarization Imaging. Attendees will see evidence one can now perform sub-quarter mm SPECT, sub-mm PET simultaneous with SPECT and do full automated 3D multi-tracer autoradiography, but also learn about ideas and concepts of non-classical SPECT image formation. The session will conclude with a panel discussion on the translation of novel SPECT technology into clinical practice.

**Presenters and Topics:**

**How Technology Advancements Could Impact Nuclear Medicine Imaging**

*Speaker: A. Hans Vija, PhD*

**Next generation SPECT-PET preclinical and clinical applications I: Multi-pinhole Imaging**

*Speaker: Prof. Frederik J Beekman*

**Next generation SPECT-PET preclinical and clinical applications II: Compton Imaging**

*Speaker: Prof. Neil Clinthorne*

**Next generation SPECT-PET preclinical and clinical applications III: Polarized Nuclear Imaging (PNI) and Improvements**

*Speaker: Prof. Ge Wang*

**Panel Discussion: Translation of novel SPECT technology to clinical practice**

*Moderator: A. Hans Vija, PhD and Ernest Garcia, PhD*

1:00 pm – 3:00 pm

**Roundtable Discussion: Instrumentation Topics**

**Facilitator: Prof. Frederik Beekman**

4:00 pm – 7:30 pm

**Immune System Imaging, Role of RNA, infection, inflammation**

**Moderators: Dominique Delbeke, MD and Professor Andreas Kjaer**

**Presenters and Topics**

**Past, Present and Future of Cancer Immunotherapy**

*Speaker: TBA*

**ImmunoPET for Probing Immune Responses**

*Speaker: Ana Wu, PhD*

**Imaging Response to Immunotherapy: CAR T Therapy, Vaccines, and Beyond**

*Speaker: Michael Farwell, MD, PhD*

**ImmunoPET Imaging of PD-L1 Expression**

*Speaker: Sridhar Nimmagadda, PhD*

**Cancer Immunotherapy Assessment of Novel Treatment Response Patterns and Immune-related Adverse Events**

*Speaker: Heather Jacene, MD*

**Stronger Together: The Future of Biopharma and Academic Collaboration in Translational Molecular Imaging**

*Speaker: Ronald Blasberg, MD*

*Panel Discussion*

**Sunday, March 4, 2018**

6:30 am – 7:00 am

**Breakfast with the Vendors**

7:00 am – 9:30 am

**Therapies, Thyroid, Cancer Approaches**

**Moderator: Michael Wissmeyer, MD**

**Presenters and Topics**

1:00 pm – 3:00 pm

**Roundtable Discussion: Therapy Topics**

**Facilitator: TBA**

4:00 pm – 6:30 pm

**New Frontiers in Non-MPI Nuclear Cardiology**

**Moderator: Robert Hendel, MD**

**Presenters and Topics**

**Amyloidosis, Sarcoidosis etc**

Cardio-oncology and cardiotoxicity

Evaluation of cardiomyopathy

Cardiac inflammation and infection

Atherosclerosis imaging: TBA

7:00pm – 10:00pm

**Dinner**

**Monday, March 5, 2018**

6:30 am – 7:00 am

**Breakfast with the Vendors**

7:00 am – 9:30 am

**Regulatory and Legislative Developments – New Payment Systems, Reimbursement initiatives and Expedited Drug Approval and Review**

**Session Chairs: Ira Goldman, MA, Kevin Donohoe, MD**

The healthcare panorama has been roiled since the beginning of 2017 by legislative efforts to repeal and replace the Affordable Care Act. Despite this, major healthcare legislation already passed by Congress in recent years (PAMA, MACRA) continue to provide a legislative foundation for the implementation of alternative payment models to drive cost-reduction and quality improvement

measures. Beneath the hype of the national healthcare debate, the further development of Appropriate Use Criteria (AUC) and application of Clinical Decision-Support (CDS) systems moves forward, along with discussions by FDA on “Parallel Review” to expedite drug approval and reimbursement. This session will provide updates regarding an overview of ongoing legislative and regulatory changes impacting the nuclear medicine sector.

#### Presenters and Topics

##### **Healthcare Legislative Big Picture – AHCA, BCRA, ACA, etc.**

*Speaker: Sukhjeet Ahuja, MD., MPH*

##### **CMS – Innovation and Coverage: Potential Impact in Value Based Systems (MIPs and APMs)**

*Speaker: TBA*

##### **AUC Status Report – Completed, in Progress, and Future Work**

*Speaker: Kevin Donohoe, MD*

##### **FDA - Parallel rather than sequential review of new imaging drug applications for FDA approval and CMS coverage**

*Speaker: Lou Marzella, MD, PhD, FDA*

**PANELISTS:** *Kevin Donohoe, Denise Merlino, Sukhjeet Ahuja, Reena Duseja, Lou Marzella, Alex Hofling*

1:00 pm – 3:00 pm

#### **Roundtable Discussion: Regulatory – Bring Your Issues for Discussion**

**Facilitator: Denise Merlino**

4:00 pm – 6:30 pm

#### **New Technology Developments for Mo-99 Production**

Moderator: **Roy Brown, MBA**

#### Presenters and Topics

##### **The Outlook for the Use of Tc-99m in Nuclear Medicine**

*Speaker: Wolfgang Weber, MD (TO BE CONFIRMED)*

##### **NorthStar’s Planned U.S. Production of Mo-99 and Tc-99m Generators**

*Speaker: James Harvey, Ph.D. (TO BE CONFIRMED)*

##### **SHINE’s Development Update on a Sub-Critical Solution Reactor for the Production of Mo-99**

*Speaker: Katrina Pitas (TO BE CONFIRMED)*

##### **NWMI’s Use of a Novel Target for the Production of Mo-99**

*Speaker: Carolyn Haass (TO BE CONFIRMED)*

##### **General Atomic/Nordion’s Use of Selective Gaseous Extraction for the Production of Mo-99**

*Speaker: Heather Murphy (TO BE CONFIRMED)*

##### **Panel Discussion: Challenges and Opportunities for the Future Mo-99 Supply**

*Moderator: Roy W. Brown*

**Tuesday, March 6, 2018**

6:30 am – 7:00 am

#### **Breakfast with the Vendors**

7:00 am – 10:30 am

## **What's Wrong with this Picture? -- Progress and Pitfalls in NeuroPET Imaging**

**Moderator: Daniel Silverman, MD**

The human brain is the organ for which the greatest experience in three-dimensional reconstruction of Nuclear Medicine images has been amassed, as we are now in our fifth decade of experience with SPECT and PET images of regional cerebral structure and function. It is also the organ for which the largest number of FDA-approved commercially distributed PET tracers currently exists, with several more in the pipeline... as well as for which arguably the greatest clinical under-utilization of those tracers persists. This session aims to provoke frank discussion on the present status and limitations of the clinical evidence and underlying basic science driving all of the above issues.

### **Presenters and Topics:**

#### **NeuroInflammation -- The Next Big Thing?**

*Speaker: TBA*

#### **Tau Imaging -- If Not Now, When?**

*Speaker: Michael Devous, PhD*

#### **Amyloid Imaging, State of the Science**

*Speaker: Val Lowe, MD*

#### **Clinical Amyloid PET Update -- the latest ideas on IDEAS**

*Speaker: TBA*

#### **FDG -- What's the Newest on the Oldest?**

*Speaker: TBA*

General Discussion: Panel and Audience

20 minutes presentation, followed by 15 minutes allotted for specific discussion for Topics #1 through #5, and with the 35 remaining minutes open for general discussion that may span across individual tracer classes to broader issues.

1:00 pm – 3:00 pm

#### **Roundtable Discussion: Cardiology – Case-based LV dyssynchrony analysis – recent success in guiding CRT**

**Facilitator: Ernest Garcia, PhD**

4:00 pm – 6:30 pm

#### **Latest Advances in Cardiac SPECT & PET Software Methods**

**Moderators: Ernest Garcia, PhD and Daniel Berman, MD**

This session will cover the latest clinical cardiac software methods available and their impact on clinical practice. Software advances include machine learning, decision support systems, automated quality control, phase analysis, and image fusion. Emerging clinical applications made possible by the latest advances in cardiac software in myocardial blood flow, relative perfusion quantification, LV synchrony, myocardial innervation, automated image interpretation and automated reporting will be discussed.

### **Presenters and Topics:**

#### **Modern Reconstruction Algorithms: Reducing Dose, Improving Image Quality and Extracting More Information**

James Case, PhD - To be confirmed

#### **“Machine Learning”, “PET Flow quantification”**

*Speaker: Piotr Slomka, PhD*

*Speaker: Edward Ficaro, PhD*

#### **Image Guided Resynchronization, Smart Reporting: The Impact of Latest Advances on Clinical Practice**

Session Chair: Ernest Garcia, PhD.

Session Chair: Daniel Berman, MD

**Panel: What does the clinician still need?**

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**Prostate Session**

**Moderator: Val Lowe, MD**

Recent advances in prostate cancer imaging and radioisotope treatment are receiving intense interest from industry and medical professionals alike. This has led to growth in the science of prostate cancer imaging tracer discovery and is leading to generational-type change in practice patterns. This session aims to provide the participant with an understanding of the different advanced prostate cancer imaging methods that are available. There will also be discussion of the clinical indications for which imaging can best be applied. The session will also aim to help the participant better plan for, select and implement prostate cancer treatment with targeted radioisotopes.

**Presenters and Topics:**

**PSMA Prostate Cancer Imaging—which PSMA did you say?**

*Speaker: Timothy R. DeGrado, PhD*

***Non-PSMA Prostate Cancer Imaging***

*Speaker: Val J. Lowe, MD*

**uPAR Theranostics for Surveillance, Treatment Planning and Therapy in Prostate Cancer**

*Speaker: Andreas Kjær, MD*

**Considerations for Design of an Image Guided Prostate Cancer Therapy Practice.**

*Speaker: Mike Graham*

20 minutes per presentation, followed by 10 minutes allotted questions for each speaker, and with the 30 remaining minutes open for general discussion that may span across individual tracer classes to broader issues.