President’s Message

The Society of Nuclear Medicine and Molecular Imaging (SNMMI) is a special organization to me and is one that has had an incredibly positive impact on my career. For those interested in medical nuclear imaging of any type, there is no other meeting comparable to the SNMMI Annual Meeting that provides a joint international forum for physicians, technologists, physicists, engineers, chemists, policy makers, administrators and payers. Although those interested in cardiovascular imaging have many potential meetings to attend ranging from small conferences focused into application of a specific imaging modality to the heart to broad radiology, cardiology or medical physics congresses, none offer the broad potential for interdisciplinary learning and collaboration. I believe deeply one cannot be a leader in the field of nuclear cardiology without this type of interaction and such interactions would be incredibly difficult to establish without this forum.

Through the Education and Research Foundation (ERF), SNMMI supports the career development of new investigators who are the lifeblood of the field and represent the path to sustained intellectual, research and clinical growth. I count myself among the lucky who have received a pilot research grant from the ERF. The program has been a major success in every sense in that it has been critical to the career development of generations of investigators in nuclear imaging.

Importantly, the Society has been extremely welcoming of members of all backgrounds and has made a major effort to improve inclusiveness towards international members. That the society has valued and honored members who are physicians who have contributed to the field but are not nuclear medicine trained is unusual in the medical world where too many groups have a parochial view of the world, pitting one specialty as the “enemy” when the real enemies are disease, pain and suffering.

By working together to advance science and clinical practice, we have been able to increase our impact on education, research and clinical practice. One example of this was the 2019 SNMMI Mid-Winter Meeting which had a Cardiovascular Nuclear Imaging theme, headlined by programming sponsored by the SNMMI Cardiovascular Council. The CVC have produced a number of practice-changing documents in recent years including Scientific Statements on the clinical use of PET myocardial blood flow quantification and FDG PET for evaluation and monitoring of cardiac sarcoidosis. An Appropriate Use Criteria for PET myocardial perfusion imaging is nearing completion and a comprehensive multi-modality document on amyloidosis imaging is nearing release and publication.
My agenda for this year is simple: I aim to continue and amplify the SNMMI’s strengths of inclusiveness, and emphasis on science, quality clinical practice and education. In that regard, we had our first ever CVC Early Career Networking event at the recent 2019 Annual Meeting with excellent attendance. We will continue to define quality and science as our field evolves with initiatives in PET FDG cardiac infection imaging, cardiac PET-MRI credentialing and other exciting emerging areas to be announced. Finally, we will extend the excellent educational opportunities at the Annual and Mid-Winter Meetings with educational initiatives via digital media.

This year is special in that it will also be the inaugural year for the CVC Outstanding Educator Award and Lectureship. This award gives our community the opportunity to recognize a leader who has served our community over her or his career with a particular focus and aptitude for teaching. This award joins the Hermann Blumgart Award and Lectureship, which recognizes a lifetime of accomplishment in research, as well as our Young Investigator Awards, which recognize promising early career researchers. One unique feature of the CVC Outstanding Educator Award is that the nomination and voting will be open to all CVC members. A Call for Nominations will be announced shortly by Dr. Terrence Ruddy, Immediate Past President of the CVC and Chair of the Nominations Committee.

On that note, I would like to recognize the outstanding contributions of Dr. Ruddy, who received the 2019 Hermann Blumgart award for his many key research contributions. As President of the CVC he oversaw a very successful cardiovascular themed 2019 Mid-Winter Meeting. He is truly a gentleman and a scholar and has been an incredible mentor to me personally as well as many in our community.

I am truly honored to have been elected to serve as President of the Cardiovascular Council. I encourage everyone with an interest nuclear cardiology to join the SNMMI and the CVC, to attend our meetings, and engage and contribute to CVC and SNMMI activities. Please reach out to your friends, colleagues and trainees so they may also benefit.

Sincerely,

Venkatesh L. Murthy, MD, PhD
President, SNMMI Cardiovascular Council 2019-20

2019 Annual Meeting Young Investigator Awards

The Cardiovascular Council would like to congratulate all of the young investigators who submitted their work in consideration for the Young Investigator Awards (YIA). The presenters were scored by the Cardiovascular Council and the awards presented by Council President Terrence Ruddy, MD.

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CV Council Young Professionals Networking Event at SNMMI

The Cardiovascular Council held a networking event at the 2019 Annual Meeting for early-career CVC members. The event was open to CVC member fellows-in-training and CVC members, who are within the first 3 years of completion of their respective training programs. The event also welcomed YIA first authors, and all current and former CVC Interns. The goal of this first-time event, organized by CVC Intern Richard Weinberg, was to foster new interest in the CVC and build a community of young members who will be active in the council to uphold its Charter and continue its mission.

The gathering, held after the CVC Saturday Categorical symposium, was quite well attended. Many young imagers and scientists had the opportunity to interact with past and present CVC Board Leadership, in addition to a number of luminaries in the field who came to support it. For those curious about the workings of the CV Council, it was a unique opportunity to see the organization outside of the annual Business Meeting or a CME session.

Incoming CV Council President Venkatesh Murthy attended the event and was pleased with the response: “I was delighted with the turnout from the young investigators, Council members, and the faculty from the Categorical symposium. I see this type of event as a catalyst for the relationships that will define the makeup of the Council, and the direction of our research and educational efforts now and in the future.”

The Cardiovascular Council would like to thank all the attendees that made this seminal event a great success, and a likely recurring event for future meetings.
2019-2021 CVC Intern Updates

The 2019 - 2021 CVC Interns are René Packard, MD, PhD, and Matthieu Pelletier-Galarneau, MD, MSc, FRCPC. CVC Interns are elected by the Board of Directors upon careful review of nominated candidate qualifications.

Matthieu Pelletier-Galarneau is a physician at the Institut Cardiologie de Montréal and has recently completed a research fellowship at the Gordon Center for Medical Imaging at Massachusetts General Hospital. He is currently serving as an Instructor at MGH and Harvard Medical School in Boston, MA.

His research interests include the evaluation of PET tracers for cardiac amyloidosis imaging, the imaging of cardiac sarcoidosis with non-FDG tracers, the imaging of peri-cardiac infection post-surgery, and infective endocarditis. His submission for the 2019 Young Investigator Award, using fluorinated triphenyl-phosphonium in a first-in-human study of a quantitative method for assessing mitochondrial membrane integrity, earned him the first-place recognition in the Basic Science category.

René R. Sevag Packard is Assistant Professor in Residence (Cardiology) at UCLA in Los Angeles, CA. His research interests include atherosclerotic plaque characterization using electrochemical impedance spectroscopy (for which he has recently been awarded a VA Merit Grant), coronary artery disease assessment with the novel PET radiopharmaceutical Flurpiridaz, and identification of novel mediators in chemotherapy-induced cardiac injury using doxorubicin as a study drug. His clinical work on automated relative quantitation of F-18 Flurpiridaz PET myocardial perfusion imaging earned him a first-place finish in the Clinical segment of the 2019 YIA.

Please join the Cardiovascular Council in congratulating these two young professionals for their outstanding achievements and their election to the Cardiovascular Council. We will continue to report on their research throughout their 2019-2021 term.

CVC News: Outstanding Educator Award

In February of this year, the Cardiovascular Council approved the CVC Outstanding Educator Award and Lectureship, a new accolade designed to recognize an outstanding educator in the field of cardiovascular radionuclide imaging. Interest in the award has been driven by the rapid growth of research, and subsequently the published literature, surrounding cardiovascular medicine in general. In addition, the evolving healthcare environment itself requires trainees to broaden their skill base to incorporate the aspects of public policy, business and financial management.

The CVC recognizes the critical role of dedicated educators in support of the Council and the SNMMI in educating not only imagers but the broader medical community, as well as the public. The educators’ activities and efforts are consistent with the current Value Initiative of the SNMMI. They lead our educational sessions, contribute to state-of-the-art consensus documents, guidelines, position statements, appropriate use criteria, and other CVC advocacy activities. All of these actions are in addition to their own research work, writing clinical manuscripts and book chapters, and teaching their respective fellows and residents.
The CVC Outstanding Educator Award and Lectureship will recognize a current CVC member who has made extraordinary and consistent contributions to the CVC’s activities as described above. CVC length of service and lectureship is a top priority when selecting candidates for the award.

The call for nominations was initiated on August 6th and will close on September 30th. The CVC Nominating & Award Committee will review the candidates and identify the top 3 to forward to the CVC membership for a vote. Deadline for the vote will be November 1, 2019. The Chair of the CVC Nominating & Awards Committee will notify the Outstanding Educator Award and Lectureship recipient. The award recipient will also be expected to present a lecture during the SNMMI Annual Meeting in New Orleans, LA June 13-16, 2020.

We hope you will join us to celebrate the first winner of the Outstanding Educator Award in New Orleans in 2020.

CV Council News: New AUC for PET Myocardial Perfusion Imaging in Early 2020

The SNMMI’s first Appropriate Use Criteria (AUC) for cardiac PET-MPI will be available in January, according to former CV Council President and Chair of the writing committee Thomas Schindler, MD, PhD.

Dr. Schindler led a renowned international expert panel to create and evaluate 214 clinical scenarios and provide the required scoring across six patient presentation categories (1: Symptomatic patients with suspicion or known CAD; 2: Asymptomatic patients; 3: Other cardiovascular conditions; 4: Assessment of microvascular disease in symptomatic patients; 5: Prior testing or procedures; 6: Pre-operative evaluation for non-cardiac surgery).

This comprehensive list of elaborated clinical scenarios aims to guide health-care practitioners towards the most appropriate use of MPI-PET, a valuable tool for both clinicians and payers alike to reduce uncertainty around the use of imaging technology and the expectation of adequate reimbursement.

The publication is in the final review stages and is expected to be published in both the JNM and JACC Cardiovascular Imaging. The AUC itself will be posted and available via the SNMMI’s Clinical Guidelines Web site immediately upon its final approval.

The CV Council applauds the effort by Dr. Schindler and his committee to create a document that meets the CMS mandate and clarifies the role and value of emerging technology in cardiovascular molecular imaging.

New in the Literature: Multi-Society / Multimodality Guidance for Imaging Cardiac Amyloidosis

An important 2-part publication emerged this month, simultaneously published in the Journal of Nuclear Cardiology, Circulation: Cardiovascular Imaging and the Journal of Cardiac Failure.

The joint expert consensus document is titled “ASNC/AHA/ASE/EANM/HFSA/ISA/SCMR/SNMMI Expert consensus Recommendations for Multimodality Imaging in Cardiac Amyloidosis” and is the result of an ASNC-assembled team of 26 experts in cardiovascular imaging and amyloidosis representing 9 societies.

Former CV Council President Sharmila Dorbala, MD, MPH, and current CVC Board of Directors member Jamieson Bourque, MD, MHS, FASNC, were co-chairs of the writing committee, and said in a press statement:

“For the first time, imaging experts conferred with heart failure experts and amyloidosis experts to provide guidance on standardized imaging techniques, diagnostic criteria, and appropriate utilization of echocardiography, cardiac MRI, and radionuclide imaging…we anticipate that these expert multisocietal consensus
recommendations on multimodality imaging in cardiac amyloidosis will standardize the diagnosis and improve the management of this highly morbid and under-diagnosed disease."

The consensus document is divided into 2 parts:

Part 1 provides an evidence base for imaging by modality, information about the evolution of techniques, and a proposal for a systematic evaluation which begins with clinical symptoms. Integrated tables which standardize parameters for acquisition and recommendations for reporting across all 3 modalities represent a significant resource not available to a multidisciplinary imaging practice until now.

Part 2 develops diagnostic criteria, clinical indications and appropriate use evaluation complete with scoring for 7 clinical scenarios across the 3 modalities.

The publications are available through the CV Council Web site under “Resources”, or by clicking here. ASNC members can access through the Journal of Nuclear Cardiology, and they can also be found on PubMed as PMID #31473268 (Part 1) and PMID #31468377 (Part 2).

The Cardiovascular Council congratulates Dr.’s Dorbala and Bourque, and their expert panel on a transformational effort that will vastly improve the management of this nebulous and nefarious disease.

New in the Literature: Approaches for Chronic Device Infection and Infective Endocarditis

A new study entitled “Diagnostic Impact of 18F-FDG PET/CT and WBC SPECT/CT in Patients with Suspected Cardiac Implantable Electronic Device Chronic Infection” was published in Circulation Cardiovascular Imaging on July 19th (Calais, J et al: PMID# 31291779).

Cardiac implantable electronic device (CIED) infection diagnosis is challenging because the clinical presentation is frequently misleading, and echocardiography may be inconclusive. The aim of this study was to evaluate the diagnostic value of 18F-FDG PET/CT and radiolabeled white blood cells SPECT/CT in patients who underwent both studies.

48 consecutive patients with suspicion of CIED infection who underwent both tests in <30 days were retrospectively included. The final diagnosis of CIED infection was based on the Duke-Li classification after follow-up. The respective scans were independently analyzed blinded to the patients' medical records.

In the overall population, the diagnostic sens, spec, PPV and NPV for PET/CT were 80%, 91%, 80% and 91% respectively, and 60%, 100%, 100% and 85% for SPECT/CT. Addition of a positive nuclear scan as a major criterion Duke-Li classification at admission. Semiquantitative parameters did not allow discrimination between “definite” and “rejected” CIED infection. Prolonged antibiotic therapy seemed to reduce the sensitivity for both techniques.

The authors concluded that nuclear imaging can improve the diagnostic performance of the Duke-Li score at admission in a selected population initially graded as “possible”. They recommended imaging should be performed either before or early after initiation of antibiotics.

Another new study entitled “Prognostic Value of 18F-FDG PET/CT in Infective Endocarditis” was published in JACC on August 27th (San, S et al: PMID# 31439211).

18F-FDG PET/CT is commonly used for the diagnosis of infective endocarditis (IE), but the prognostic value remains unknown. This study sought to assess the prognostic value of 18F-FDG PET/CT in both prosthetic valve endocarditis (PVE) and native valve endocarditis (NVE).
173 consecutive patients with definite left sided IE were prospectively followed for 1-year (109 PVE and 64 NVE). The primary endpoint was a composite of major cardiac events: death, recurrence of IE, acute cardiac failure, nonscheduled cardiovascular hospitalization, and a new embolic event.

FDG was positive in 100 patients (58% of the total group; 83% of PVE and 16% of NVE). At 225 days, the primary endpoint occurred in 94 patients overall (54%); 58% in the PVE group and 48% in the NVE group. In the PVE group, positive FDG was significantly associated with a higher rate of primary endpoint (HR 2.7, P=0.04). Moderate to intense valvular uptake was also associated with worse outcome and new embolic events in PVE. In the NVE group, FDG was not associated with occurrence of the primary endpoint.

The authors concluded that 18F-FDG PET/CT provided good diagnostic performance and is predictive of major cardiac events in PVE and new embolic events within the first year following IE.

**CVC Board of Directors**

At the CVC Board of Directors meeting held at SNMMI, the annual rite of passage took place as Dr. Terrence Ruddy passed the torch of the Presidency to Dr. Venkatesh Murthy. Dr. Murthy in turn presented Dr. Ruddy with a plaque to commemorate his Presidency; a year which was highlighted by his election as the Blumgart Award winner for 2019.

Dr. Ruddy marked the event by extending his thanks to outgoing members of the Board of Directors with a plaque to commemorate their service to the Council.
CVC Board of Directors

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Matthieu M. Pelletier-Galarneau, MD MSc  Intern

Please visit the Cardiovascular Council website for more information and to join or renew your membership! Your membership is critical to the ability of the CVC to continue providing the highest caliber educational programs.

Follow us on Twitter at @CVC_SNMMI for more news and updates as they happen