

Fall 2017

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A Message from the President

Patrick M Colletti, MD



There are significant changes introduced by the SNMMI strategic plan of 2017, including a new “Value”: intuitive to include transformative in the January and June meeting formats. These have important implications for councils and centers, including our Correlative Imaging Council.

What does this mean for the councils and centers?

- There will no longer be a call for proposals for the MWM programming. This year, the Therapy Center of Excellence will take the lead on developing this year’s program in consultation with the Scientific Program Committee as well as other councils and centers, as appropriate.
- In future years, each council and center will be asked to make proposals for symposium topics.
- Once the topic is selected, the proposing council or center will take the lead in planning that year’s programming in collaboration with the Scientific Program Committee.

As the mission of CIC crosses multiple strategic plan “Domains”, we are considered an SNMMI resource and we will be called upon to participate at meetings in several roles, including primary topical organizer, supportive topical presenters and “Nuts and Bolts” review content presenters.

Our long time successful role as CT and MRI course organizers will be phased out in place of emerging topics. When called upon for our participation, we will expect appropriate Society resources, hopefully limiting CIC budgetary challenges.

Thus, our mission continues as we celebrate the many courses we have delivered. Our well deserving Walter Wolf Award winner Raiyan Tripti Zaman, PhD went on to capture the 2017 SNMMI Highlights “Image of the Year” Award. With our new intern Christopher Owens, CNMT, ARRT(R)(CT)(MR)(N), we look forward to learning how we can participate in career enhancement for nuclear medicine technologists interested in correlative imaging. We live in interesting times!

CIC-Sponsored Sessions

The Correlative Imaging Council (CIC) was pleased to sponsor the following categorical session and continuing education sessions at the June 2017 SNMMI Annual Meeting in Denver, Colorado. All of the sessions were well attended.

Categorical Session:

Advances in CV Multimodality and Molecular Imaging

CIC Educational Sessions:

Pediatric Sports Medicine

Case-Based Dose Reduction in Pediatric Nuclear Medicine: Practical and Necessary

Case Review (Cases 1-13) Brain

Case Review (Cases 14-25) Abdomen I

Case Review (Cases 26-38) Chest

Case Review (Cases 39-50) Spine/MSK

Case Review (Cases 51-63) MSK

Case Review (Cases 64-75) Head and Neck

Case Review (Cases 76-88) Abdomen II

Case Review (Cases 89-100) Cardiac

Imaging Council Walter Wolf Young Investigator Award

Each year, the CIC awards the Walter Wolf Young Investigator Award. This award recognizes a young investigator for originality, scientific methodology, and overall contribution to molecular imaging or therapy through original research showing the importance and value of correlative imaging in all fields of medicine.

The 2017 Walter Wolf Award Recipient is **Raiyan Tripti Zaman, PhD**, for her abstract titled: *"Harnessing Radioluminescence and Sound to Reveal Molecular Pathology of Atherosclerotic Plaques."* Congratulations, Dr. Zaman!



Patrick Colletti, MD, CIC President presents Dr. Zaman with her award (Denver, CO)

2017-2019 CIC Intern



The SNMMI Internship Program was established in 2008 with the aim “to identify and train future leaders of SNMMI in the structure, governance, and operations of the organization; to prepare individuals for progressive levels of responsibility; to ensure effective leadership that advances the mission and goals of the organization”.

The 2017-2019 CIC intern is Christopher Owens, CNMT, ARRT(R)(CT)(MR)(N). Christopher graduated with an Associate’s Degree in Radiologic Technology at Gadsden State Community College in 2007. Upon graduation, he was offered a job at his local hospital in the shared CT/MR department. He worked in that position for eight years and in that time, grew to be very fond of and interested in PET. In 2015, he enrolled in the Nuclear Medicine Technology Program at Chattanooga State Community College. At the 2016 Annual State Meeting for Nuclear Medicine Technologists of Tennessee, Christopher took first place in the poster presentation for students. The topic he chose was an in-depth comparison and contrast of PET/CT versus PET/MR. Christopher is presently employed at Chattanooga Imaging and Molecular Imaging Technologies in a PET/CT Technologist role at both companies. He is gathering his competency hours to set for the PET registry in spring 2018. He is currently pursuing his Bachelor’s Degree in Radiologic Sciences at East Tennessee State University and will be an adjunct professor this fall with the MR program at Chattanooga State Community College.

Medical Imaging – Shortfalls of Medical School Curriculums

Nicole E. Philips, Medical Student, University of Limerick



Throughout medical school, we learn that taking histories and performing physical exams are the foundation to formulating appropriate differential diagnoses and ultimately point us towards a specific diagnosis. We must, however, rule out other differentials as some patients may present atypically. In order to do this, we often order blood work and imaging tests. From these, we use our clinical judgement to diagnose and treat the patient accordingly. The question remains, however, if we fall short in one of these areas, what happens to our ability to appropriately diagnose and treat the patient? One such area where we might fall short is in our ability to read medical imaging.

Medical school curriculums include modules in anatomy, histology, microbiology, etc. They also include data interpretation where we learn to read blood work and develop a systematic way for reading x-rays. Medical imaging, however, encompasses much more than just reading x-rays. It also includes ultrasounds, CTs, MRIs, and the different imaging seen in nuclear medicine such as HIDA scans, PET scans, myocardial imaging studies, and many more.

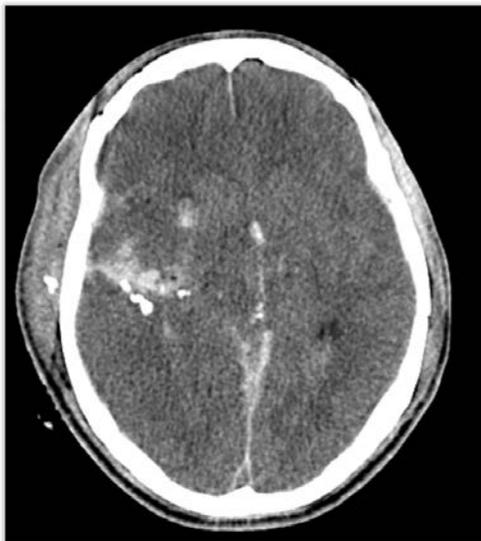
What I have come to realize as I approach my final year in medical school is that my ability to read medical images is much more limited than I once thought. In some cases, I am even uncertain of when particular images are indicated. This is particularly relevant to nuclear medicine as students often have little or no exposure in this area. I know that I am not the only one who feels this way. Many residents have expressed that their knowledge of imaging and its values is limited. Certain areas of medicine are more dependent on being able to read medical imaging as well. For example, emergency doctors are required to read x-rays and CTs to determine the management required in the circumstance, often before a radiologist or nuclear specialist has reported on it. Diagnostic imaging is becoming the standard in order to confirm a diagnosis or provide support for a diagnosis, so why wouldn’t an area of medicine that is becoming the standard be part of the regular curriculum of all medical schools?

Medical imaging uses a number of non-invasive techniques to map the human body. With technological advances, medical imaging is now routinely used for diagnostics, treatment, and is often justified in the follow-up of many diagnosed conditions. We use it to monitor disease progression and to evaluate if treatment modalities are in fact working. It may allow us to find disease earlier and improve patient outcomes. And while history and physical exams provide the foundation for differential diagnoses, they may at times be misleading. Medical imaging is both accurate and specific and can provide an accurate diagnosis when the standard has been unable to.

Now that I have had exposure to a clinical placement in medical imaging, I have come to realize the value and benefit that all medical students would receive from incorporating such a module into medical school training. To address the shortcoming, schools could develop a module that teaches students and provides sufficient exposure to imaging. Students would learn to read images appropriately and when they are indicated. Furthermore, schools could incorporate rotations or placements in imaging for internship periods as part of exposing all med students to various medical specialities. The result would be better medical knowledge in an area that is quickly becoming the standard and would help with the transition from student to resident. Medical imaging is not a priority in most medical schools, and with continued advances in this area, it should be.

Interesting Case

A 39 year-old male with a gunshot wound was evaluated for possible brain death. Static Tc-99m HMPAO images are shown. Flow images (not shown) had a similar pattern of uptake.



The areas of photopenia on scintigraphy correlated with the bullet path on CT (only a single slice shown here). The bullet path extended from the right temporal region to the left parietal brain (note the bullet fragments on this image).

This is not a positive brain death scan.

Contribution by Twyla B Bartel

CIC GOVERNANCE

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Intern: Christopher Owens, RT(R,CT,MR)

Save the Date!

The 2018 Mid-Winter Meeting
Hilton Orlando Lake Buena Vista in Orlando, FL
January 25-28

The 2018 Annual Meeting
Philadelphia, PA
June 23-27

Please visit the CIC [website](#) for more information on the CIC and upcoming events.