The ACNM Board of Directors met during the SNMMI Annual Meeting in Vancouver, British Columbia. During this meeting, other than dealing with the usual administrative issues and reports, the board focused on the ACNM Management Contract, Membership Committee activities and the plans for the ACNM Annual Meeting, to be held in conjunction with the SNMMI Mid-Winter meeting as in the past few years.

The board approved a new three-year management contract with the SNMMI for a reduced fee. Two features of the new contract are that the cost is lower and that it is one year longer, so that the college can have some more time to focus on areas of strategic growth rather than soon again focusing back on negotiating a new management contract. However, as I mentioned in my last report, the college needs to increase revenue to meet its financial obligations with regards to payment of the remaining contract period, and we need to be on solid financial ground for the new contract period.

The Membership Committee, chaired by Simin Dadparvar, MD, FACNM, is hard at work to enhance retention of current members and grow the membership. On that front, a letter has been drafted with the help of Bennett Greenspan MD, FACNM, that will be sent to all college fellows to encourage them to remain with the college or renew their memberships if their memberships have lapsed. The status of fellowship is one of the most valuable benefits provided by the college, as it is recognition of individual accomplishment, and lends authority to those selected as fellows. As Ben mentions in his drafted letter with the honor of Fellowship, comes obligation. Fellows are expected to continue as active members of the college upholding its values and the nuclear medicine community as a whole. The Membership Committee, with the help our manager, is also planning for an active and engaging membership drive this year that also coincides with the 40th Anniversary of the college. Both domestic and international physicians and scientists will be invited to join. Moreover, an invitation letter is planned for distribution to the SNMMI members that will be signed by both me and Gary Dillehay, MD, FACR, FACNM, who is the current SNMMI president. The international residents may join the NMRO with a membership fee of $25 and will have online access to the journal of the college, *Clinical Nuclear Medicine*. We are optimistic that with the energy and commitment of

(Continued on page 2. See President.)
President:

Erica Cohen, DO, MPH, CCD
NMRO President

The NMRO had a great time at the Annual Meeting in Vancouver. This year’s Annual Networking Luncheon topic was Government Relations and Politics, with guest speakers Dr. Robert Henkin, Sue Bun ning and Dr. Erin Grady. It was a very informative event with a lot of audience participation and interaction. We are hopeful that residents will increase their involvement in local and national politics, and we have added a Government Corner to our quarterly Scintillator newsletter. Another exciting event at the Annual Meet ing was the first-ever Residents & Young Professionals Networking Happy Hour. We had a great turnout and plan to continue this event at future meetings as a collaborative effort with the Young Professionals Committee.

NMRO, YPC and other groups also recently drafted a letter to the ACQME requesting a revision of the individualized case logging system, which is very time-consuming and takes residents away from their clinical duties. We are hopeful that the ACQME will allow bulk case logging for cardiology, pediatric and PET exams.

Our next Virtual Journal Club is coming up in September and will focus on nuclear medicine training pathways. This event will be hosted by Dr. Anthony Fontenes, the current ACNM Intern. Please encourage your residents to participate in this discussion. Just like all of the other benefits of NMRO, participation is FREE!

If you’re a resident or affiliated with a residency program, we would encourage membership. Residents can visit www.acnmonline.org.

Happy Hour. We had a great turnout and plan to continue this event at Friday, November 15, 2013.

Let Us Know Your Opinions

As part of the “new and improved” ACNM, we would like to make this newsletter a useful resource for you. We hope to keep you abreast of the news that matters to you. This includes things like upcoming events and items available for public comment that could affect the future of our specialty. We welcome ideas for topics you would like to see in the newsletter. Likewise, if you have any clinical questions you would like us to forward to an expert or letters to the editor of the ACNM Scanner Newsletter, please send us your inquiries.

Additionally, if you’re a member and have an exciting accomplishment to highlight or share with the rest of the nuclear medicine community, please send us your announcement. Please send your inquiries or announcements to Erin Grady, MD, the ACNM Scanner Newsletter Editor, at eguardy@christianacare.org. We will do our best to be a valuable resource for you.

Do You Have Research You Would Like to Present in Palm Springs, California? Send Us Your Abstracts!

The American College of Nuclear Medicine invites the submission of original abstracts for the Annual Meeting, held in conjunction with the Mid-Winter Meeting, February 6 – 9, 2014, in Palm Springs, CA. Papers on all aspects of clinical and basic science in nuclear medicine, correlative imaging in radiology, nuclear cardiology and radiation oncology will be considered. The accepted presentations will be in oral and poster format.

A panel of physicians will judge the young investigator’s posters, and the authors of the best submissions will be presented with their awards during a special banquet on Thursday evening. The presenter must be in attendance at the meeting to be eligible for an award. There will be three Best Abstract Awards, each for $500 and two Travel Grants each for $750.

Abstracts must be submitted via email to Delicia Hurdle at dhurdle@acnm.org. The author’s names and affiliations should be included with the title of the abstract. For more information regarding the abstract submission guidelines and submission form, please visit the ACNM website at www.acnmonline.org. The deadline is Friday, November 15, 2013.

A Fairytale: A Commentary on Quality

Robert E. Henkin MD, FACNM, FACR
Professor Emeritus of Radiology
 Loyola University Chicago

Once upon a time in a galaxy far, far away existed a planet with a kingdom. This kingdom was wobbly because of the industrial nature of the trade, the subjects and the benevolence of the monarch. For a number of years the Monarch had cared for the health of the kingdom and knew that the physicians of the kingdom were paid for their service. The healthcare delivered to the people was judged to be the finest on the planet. Numerous advances were made in medicine, including the cure of many diseases, vaccination programs on the planet and other significant items. After a time a new monarch came to rule, Queen Medi. Queen Medi was educated in statistics and business methods. After many years of study, the queen decided that she could improve the health care of the planet and decrease the costs of care by applying these methods to medi cine. In order to ensure that these measures could be implemented, physicians were required to submit more and more data to the central government. At the data submission requirements grew greater physicians were able to spend less and less time with their patients. The continuing requirements for data submission meant that physicians became confused as to what their responsibil ity was and what their patients were trying to do. This re embursement was tied to data submission. Patients became dissatisfied with their care and the “quality” began to decline. Queen Medi became aware of this trend in health care and decided that steps must be taken to improve the quality of care.

The queen brought her advisors together, the statisticians and more and more business methods people. It was decided that more data points were necessary to improve quality and that the physicians must develop mechanisms to further decrease in quality of care. Once again physicians began to value the quality of data they submitted higher than the patients they cared for. A surprising understanding began to grow among physicians, the more data submitted, the less quality they could practice. As time with patients grew less and less the understanding of those patients and their issues also decreased.

The Queen’s advisors urged her to focus on outcomes of care. Everyone agreed that this was a great idea. Clinical specialties quickly adapted to this and were able to demonstrate outcomes of care. The laboratory specialties found the measurement of quality, beyond the precision and accuracy of their testing could not be measured. In her anger Queen decided that these laboratory specialties should be paid less than they were in the Past. Soon these laboratories began to disappear and the overall quality of care deter riated further.

This is quite a fairy tale, but is it really a fairy tale? For those of us practicing variants of laboratory medicine the issue of quality has been very vexing. How does one measure the outcome of a procedure that leads to a diagnosis when that test is only one of a number of factors involved in making the diagnosis or determining the therapeutic regimen? Outcome measures for imaging tests appear to have its infancy and it is not even written today. How do we contribute to the outcome of care? We have yet to find a methodology that allows the measurement of this contribution.

What is at stake for quality in imaging? First of all is to ensure the imaging device is operating correctly and according to the manufacturer’s specifications. In nuclear medicine the concepts of quality control are firmly established and have been in place for over 50 years now. A de partmental wide QA program is an essential for maintaining quality. Such a program needs oversight to ensure that all devices are functioning cor rectly as well as ensuring that devices such as IV’s and dialysis systems are also operating correctly. The second element for quality in NM is in the imaging protocol. There are many standardized protocols available from reputable sources including SNMMSI for imaging virtually any organ. While tailoring of protocols is acceptable for individual laboratories, the tailoring should start from an accepted protocol.

Once the technical side of imaging is standardized the physician component is added. Interpretation cannot be standardized, but quality is dependent on several factors. The first of these is adequate training in an ABMS accepted program. After Board Certification participation in scientific meetings and self-education is critical. Two additional features are important to maintain physician quality. The first of these is participation in a phantom program where anthropomorphic phantoms with unknown lesions are imaged and then reported by the physician. The laboratory score on these phantom studies and ranking versus other par ticipants should be reported. Lastly nothing beats an onsite inspection to judge the overall practice quality.

Early efforts at ensuring quality revolved mainly about the AAMI PCPI program. This program attempted to ensure quality by having physicians complete essentially check lists that certified the contained items, thought to be essential to quality in a given clinical scenario, were performed (e.g., comparison of computerized and pen and paper order entry). This has evolved into the current Medicare program’s PQRS program where physicians now report their efforts to Medicare and receive a bonus in payment for their compliance. This program is about to undergo significant change. As with so many Federal programs this one has transformed from carrot to a stick program. Physicians who do not participate in this program during 2013 will not be able to participate in 2015. These physicians will not only be unable to participate but will have 93% of Medicare payments withheld. Over the coming years these payments will further decrease for nonpartic ipants.

The surgeons have addressed quality in a different fashion. They have developed a technique called “registries.” This approach the quality problem by having surgeons report the outcome of all their surgical procedures to a central compiling source. From this data surgeons can see how they are performing versus other groups and metrics derived from the overall data. This works well for surgery, but it is unclear whether this methodology can work for other areas of medicine and the process is quite expensive.

It has become evident to many that simply completing checklists is no assurance of quality, and even Medicare is coming to see this. While like a speeding freight train the PQRS program is going ahead, at the same time Medicare has opened the door on a new quality program. As Physician...
Focus on the Fellow: Five questions with Dr. Lorraine Fig, MD, MPH, FACNM

Erin Grady, MD, CCD

In this issue, we will focus on Dr. Lorraine Fig, who is truly an influential member of the specialty of nuclear medicine, although she herself might never tell you this outright. She is a dedicated practitioner and teacher of nuclear medicine. Her honors, invited lectures and publications span several pages of her curriculum vitae. Her involvement also spans many organizations, some of which include the ACNM, SNMMI, ACR, RISA, ACR, IAC, and many others. She is always willing to share her expertise on nuclear medicine and its practice. I definitely agree with your assessment of her as a wonderful teacher and mentor.

EG: What got you interested in nuclear medicine?

LFP: It’s a rather circuitous story. I did not initially have any plans to enter the field. The first time I saw a nuclear medicine scan was in medical school at the University of Cape Town, South Africa, when we were shown a life-sized rectilinear image of an I-131 Rose Bengal liver scan. This was in the early 1960s, several years before the use of CT scans, so we was impressed with an image that could show hepatic structure and function. I filed this information away deep in my brain and didn’t give nuclear medicine any thought at all as a training pathway. My career took some detours when I married, left the U.S. to be with my family in the U.S., arriving in Ann Arbor, MI, in late 1979. After obtaining a Master of Public Health degree at the University of Michigan, I was interested in returning to clinical medicine, but unsure of which discipline would be best for me. My husband (Brahm Shapira, an endocrinologist and nuclear medicine physician) suggested applying to nuclear medicine and this turned out to be a great idea. I was so fortunate that Dr. William Beierwaltes, chief of nuclear medicine at the University of Michigan and a pioneer in the field, offered me an opportunity to enter the training program, for which I will always be grateful. I loved nuclear medicine from the first day of residency and still do!

EG: What was the best advice you received when you were just starting out as an attending?

LFP: I’ve been lucky to work with amazing people in nuclear medicine. I owe an incredible debt to the clinical teachers and mentors who taught me nuclear medicine and showed me how to negotiate my career. Two pieces of advice from my mentor, Milton D. Gross (chief of nuclear medicine at the University of Michigan and a pioneer in the field, offered me an opportunity to enter the training program, for which I will always be grateful. I loved nuclear medicine from the first day of residency and still do!

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(Continued on page 7. See Focus on the Fellow.)
that measure the integrative aspects of technical and physician efforts one of quality in imaging. If laboratories are participating in national programs of participation in national quality programs as part of the assurance non-imaging world. One the priorities for our societies should be recogni

Unfortunately, none of these measures are accepted for quality in the can be measured. No one has quite figured out the best way to accomplish Practice Guidelines come into greater and greater use, Medicare announced to the normal patterns of post-operative lung perfusion listed below. 

A 28-year-old man was admitted through the ED for dyspnea and referred for ventilation perfusion imaging to evaluate for pulmonary embolism. The figure shows posterior planar views of lung perfusion following two injections of Tc-99m MAA, one into the left upper extremity (A) and the second, a few hours later, into the right upper extremity (B). Ventilation imaging with Xenon-133 was normal (not shown). The patient had a history of tricuspid atresia, dextro-transposition of the great arteries, severe pulmonary stenosis, bilateral modified Blalock-Taussig shunting, bilateral bidirectional Glenn shunting, and extracardiac lateral tunnel Fontan shunting, all completed by age 5. Match the three kinds of congenital cardiac shunt repairs to the normal patterns of post-operative lung perfusion listed below.

Surgical shunt:  

1. Bilateral bidirectional Glenn + extracardiac Fontan  
2. Original Glenn + original Fontan  
3. Bidirectional Glenn + extracardiac Fontan

Normal lung perfusion to the left, right, or both lungs following venous injections of Tc-99m MAA into the left upper, right upper, and lower extremities

A

B

(Continued on page 8. See Challenge Case.)

Practice Guidelines come into greater and greater use, Medicare announced that in the future these guidelines will have to contain quality metrics that can be measured. No one has quite figured out the best way to accomplish this yet, and it is at this time a work in progress.

Unfortunately, none of these measures are accepted for quality in the non-imaging world. One the priorities for our societies should be recogni-

tion of participation in national quality programs as part of the assurance of quality in imaging. If laboratories are participating in national programs that measure the integrative aspects of technical and physician efforts one can ensure that the practice is producing the best quality studies for patients possible. Use of an outcome measure for imaging is very problematic as we cannot tell what happens to the end product of our efforts. Did the cli-

nian understand and properly integrate the information we provided into the care of the patient? This alone makes outcomes measures for imaging problematic. The steps described above ensure that a given laboratory can produce the quality and trusted physician report needed for patient man-

agement. Penalizing imaging without taking into account quality programs cannot tell what happens to the end product of our efforts. Did the clini-

ce and less observable. Clearly, the most important material benefit is the Clinical Nuclear Medicine Journal subscription accompanying our mem-

bership. Another major benefit is the superb and varied education pro-

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eties such as the Virtual Journal Club, among others are tangible benefits to our residents.

I believe, however, that the intangible value of ACNM in promoting the interests of physicians (and scientists) through separate, independent repre-

sentation is not obvious to the nuclear medicine community at large. If we are to bring in new members, as we must in order to survive, we have to find a way to articulate and widely publicize this vital aspect of our mission.

Focus on the Fellow: Continued from page 4.)

the Ann Arbor VA Hospital have stood out as touchstones.

Firstly, the concept of “Baby Steps.” In other words, don’t change or implement too much too quickly. For example, when starting a new job don’t modify all the protocols and routines immediately. It is better to watch, listen and learn, then proceed very slowly and stepwise in making any changes, simultaneously getting feedback from all the stakeholders. The second wise counsel was, “You can catch more flies with honey than vinegar.” What great advice--it’s a concept I have striven to follow throughout my career. I truly believe it’s easier to persuade people by using polite, reasoned argument than by being angry or confrontational.

EG: What gives you the most career satisfaction?  

LF: I’m most satisfied when I can help people. This falls into two categories: interactions with patients and students. I love the clinical contribution I strive to make from scan interpretation and managing therapy patients. I also greatly enjoy teaching students at many levels (high school students, medical students and residents/fellows) and I especially like being able to pass along a piece of knowledge that was taught to me by one of my own teachers. For me, it is a way to relate to my teachers and honor them. Also, I get great satisfaction when a former student says to me “I remember when you taught me that…”. It’s a “connect-the-dots” moment for me.

EG: Can you give some background on your involvement with ACNM, including your president’s award?  

LF: I first joined the American College of Nuclear Physicians (a forerun-

ner organization of ACNM) in 1991 but did not become active or even a regular member until 2006, when I decided to rejoin and increase my involvement in the organization. I had become increasingly aware of the vital role ACNM plays in providing additional representation to a variety of governmental and nonprofit organizations. In fact, the same year I re-

joined, I was appointed ACNP’s representative to the Board of the Interso-

cietal Commission for the Accreditation of Nuclear Laboratories (ICANL, now IAC/Nuclear/PET). From 2007 to 2012, I served on the ACNM Board of Directors, which included the rather unsettled period of the merger between ACNP/ACNM, and a search for ACNM management alternatives. In 2010, I was honored to be designated as an ACNM Fellow, and in 2012 Munir Ghesani, MD, at that time ACNM president, surprised me with the President’s Award. I would like thank the ACNM for these honors that have been very meaningful to me, and greatly appreciated.

EG: What do you think that ACNM should do to improve its value for its members?  

LF: ACNM already provides many benefits for its members, both tangible and less observable. Clearly, the most important material benefit is the Clinical Nuclear Medicine Journal subscription accompanying our mem-

bership. Another major benefit is the superb and varied education pro-

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Fontan shunts connect the IVC to the pulmonary artery in two variations: 1) IVC to bilateral PA (most common) 2) IVC to left PA (original Fontan) Knowledge of this surgical is crucial for accurate interpretation of ventilation perfusion imaging. In this case, we reported that our patient had "normal ventilation and postoperative right upper extremity-to-right lung and left upper extremity-to-left lung perfusion," suggesting pulmonary embolism was a very unlikely cause for his symptoms. A quality history is also important as this can save the otherwise "intermediate probability" QV patient from getting a further non-diagnostic CTA (picture below) and the associated radiation dose.

Let us know your opinion!
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Please send your inquiries or announcements to Erin Grady, MD, the ACNM Scanner Newsletter Editor, at egrady@christianacare.org. We will do our best to be a valuable resource for you.
enjoying a successful private practice in nuclear medicine. The latter topic will be discussed by Pradeep Garg, PhD, who was involved with the nuclear medicine centers at Duke, Yale and Wake Forest over the past three decades and is currently the executive director of the Louisiana Molecular Imaging Center. We will continue having a session by Jay Harrold, MD, FACNM, on a leadership-related topic. He will be focusing on “Getting the Right Job Under Tough Circumstances” at this meeting, with an emphasis on the tough job market for nuclear medicine physicians as well as technologists. There will also be the traditional resident presentations, with best essay awards being presented at the ACNM gala dinner celebrations. Most of the program has been finalized, although some speakers and topics are subject to change as we are still awaiting final conformation.

The rest of the Mid-Winter Meeting appears to be equally exciting, with quality talks and great speakers. The Correlative Imaging Council (CIC) of the SNMMI will continue to conduct the CT case review sessions but will also add MRI case reviews to the mix this time. So although 100 cases will again be reviewed over the course of two days, these will not all be CT cases but will also include MRI cases, and the certificate is expected to state the same. It is exciting time for hybrid imaging and the CIC is being proactive by initiating MRI case reviews well in advance before formal guidelines of the requisite training are put forth by the respective professional societies. By starting early, we hope that nuclear medicine professionals will be well prepared to effectively use the new hybrid PET/MRI modality when it potentially becomes a routine clinical tool in the future. So in addition to this, there are several sessions that will enhance MRI education including a session on PET-MRI focusing on basic science to clinical application and multimodality imaging with PET/MR to characterize CNS diseases.

Sessions focusing on newer developments are also expected to deliver cutting-edge information to the Nuclear Medicine practitioner. There will be sessions dedicated to radium-223 dichloride (Xofigo), the recently FDA approved alpha-particle radionuclide therapy for castration resistant metastatic prostate cancer with bone predominant disease. Xofigo has shown to offer a survival benefit to patients and hence is not palliative and has opened an exciting era of radionuclide therapy. Other sessions focusing on recent developments will discuss lymphoscintigraphy (with recent FDA approval of Lymphoseek) as well as emerging radioligands and future targets for CNS imaging. In addition to oncological and neurological applications related to molecular imaging, there will be dedicated sessions focusing on cardiac imaging and infection imaging. Hybrid imaging will also be the focus in sessions dedicated to SPECT/CT from the clinician as well as technologist perspectives. Additionally, mIBG diagnosis and therapy will also be emphasized with mention of the up and coming concept of Theranostics. Response assessment remains an important and unresolved issue that the meeting will also touch upon.

Lastly, there are expected to be sessions covering more universal considerations like sustaining education and practice in today’s environment since that remains fiscally challenging with more regulations. Job opportunities for the technologists and the role of Nuclear Medicine Advanced Associates (NMAA) in the enlarging role of PET/CT in nuclear medicine and molecular imaging will also be addressed.

In summary, I believe the program is very exciting and offers wholesome coverage of issues that are extremely pertinent to the practice of nuclear medicine in current times. The speakers are expected to be excellent and the topics are very relevant and we hope to have an excellent scientific program. See you all in Palm Springs in February 2014!