Message From the Chair

I am greatly honored to serve you in this upcoming year as the Chair of the ABNM. As a director since 2014, I have seen the Board and our specialty grow and evolve.

Joanna R. Fair, MD, PhD
Chair, American Board of Nuclear Medicine (ABNM)

Executive Director’s Message

George M. Segall, MD
Executive Director, ABNM
2018 Financial Report - The ABNM started 2018 with a budget of...

New ABNM Logo

Esma Akin, MD, FACR
Communications Committee Chair, ABNM
The ABNM has acquired its new logo.

IMPORTANT DATES

- April 1, 2019 – Online Application Period begins for Certification & Maintenance of Certification (MOC) Examination (Computer Based Test (CBT) at a Pearson VUE location selected by the applicant)
- September 3, 2019 – In-Training Examination (ITE) Enrollment
- October 7-12, 2019 – Certification and Maintenance of Certification Examination

Message From the Associate Executive Director

Leonie Gordon, MD
Associate Executive Director, ABNM
The CertLink® program has been very well received by our diplomates.

ACMUI Training and Education Subcommittee Recommends Not Changing Current AU Requirements

George M. Segall, MD
The ABNM responded in a letter dated July 31, 2018 strongly opposing changing the current requirements.

More Tracers Articles

2018 Contribution List
- New Diplomates Who Passed the 2018 Certification Examination
- Diplomates Who Passed the 2018 MOC Examination
- Results of the 2018 Certification/ MOC Examination

JNM ABNM Articles in JNM Newsline
- ABNM Statement on ACMUI Changes in Authorized User Training and Education George Segall, MD J Nucl Med 2018 04 17N
- Longitudinal Assessment (CertLink): Listening to and Enhancing ABNM Diplomate Experiences Leonie Gordon, MD J Nucl Med 2018 02 20N

The ABNM welcomes comments from diplomates and residents regarding issues raised in this Tracers or any other issues affecting the practice of nuclear medicine or certification processes. Please email your comments to:

George M. Segall, MD
Executive Director
American Board of Nuclear Medicine
abnm@abnm.org
Dear ABNM Diplomates:

Like you, I practice nuclear medicine clinically, and I am committed to bringing state-of-the-art nuclear medicine imaging and therapy to the underserved population of my state. I am also fully invested in medical education as the Associate Dean of Graduate Medical Education at the University of New Mexico. I have two school-aged children and bounce between scout meetings, music rehearsals, and gymnastics competitions. I maintain two board certifications, in Nuclear Medicine and Diagnostic Radiology; each to me is worth the time and investment.

I agreed to serve on the Board five years ago because I believe in Nuclear Medicine and in the board's work to certify and advocate for competent practitioners of our specialty. As directors, we are not paid, but we work alongside our small, dedicated staff and part-time Executive Director and Associate Executive Director, spending many hours each month participating in conference calls and email discussions, writing and editing questions, reviewing credentials applications, preparing communications, and otherwise carrying out the work of the board.

The board meets face-to-face twice a year; these meetings facilitate frank conversations about our specialty and the board's direction. Each of our subcommittees (including Communications, Residency, MOC, Finance, Credentials, and Examinations) updates the board on its between-meeting work, with discussion of any hot topics each subcommittee addresses. A portion of each meeting is devoted to reviewing, revising, and compiling questions; exam development then continues throughout the year with our Examinations Committee. The heart of our meetings lies in our tough conversations, whether about board finances, maintenance of certification, or threats to our specialty. While we do not always agree, we have respectful conversations about difficult issues.

Some of our work may seem mundane at face value yet is important. This year, board members and staff have spent many hours researching a change in our exam database vendor to replace our aging system. In addition to providing a more robust and trackable platform for examination development, we anticipate being able to offer a computer-based In-Training Exam next year, improving accessibility and modernizing the exam format. We continue to invest time and energy into ongoing development of our CertLink® ABNM pilot, bringing summative/formative questions directly to diplomates on a periodic basis. All board members are required to participate in MOC and in CertLink; we get the same reminder emails and can help flag systems issues.

This is an exciting time for Nuclear Medicine, particularly as theranostics grows. I am honored to serve the Board and our diplomates in this role at this crossroads.

Warmly,

Joanna R. Fair, MD, PhD
Executive Director’s Message

2018 Financial Report
George M. Segall, MD - Executive Director, American Board of Nuclear Medicine

The ABNM fiscal year is January 1 through December 31. A full audit is conducted every two years by a certified public accounting firm, UHY LLP Certified Public Accountants. The firm conducts a less extensive financial review in alternate years. In 2018, UHY reviewed ABNM’s financial statements for the year ending December 31, 2017. The report dated July 3, 2018, noted total assets of $3,462,843 with an increase of $160,645 compared to the prior year. The report also noted that ABNM accounting practices conform to organizational standards.

The United States Income Tax Return, Form 990, filed by all non-profit organizations, is publically available. There are many websites that provide free access to the tax returns, including the returns filed by the ABNM. One such website is http://foundationcenter.org/find-funding/990-finder.

The ABNM started 2018 with a budget of $788,837 in operating (non-investment) income. At the end of the year, the estimated operating income was $863,023. Income was below budget for examination and CertLink fees (-$182,050), and donations/miscellaneous (-$2,589). Income was above budget for annual MOC dues ($258,825).

The ABNM started 2018 with a budget of $882,318 in operating expense. At the end of the year, the estimated operating expense was $892,463. Expense was below budget for meetings and general operations ($-5,720). Expense was above budget for salaries ($15,865).

The ABNM ended 2018 with a net income of -$29,440.

A break down of the major income and expense categories for 2018 is shown in the following diagrams.

The largest percentage of income (73%) was derived from Maintenance of Certification (MOC) annual dues. Annual dues were $150 when they were instituted in 2007. They were increased to $175 in 2010. The dues were increased to $400 in 2012, mostly to offset the fee paid by diplomates for the MOC examination. As a result, the MOC exam fee, which was $2,050 in 2011, has been decreased by $205 per year. The 2018 exam fee was $615. The exam fee will be phased out completely in 2021. Diplomates who enrolled in CertLink®, a new longitudinal learning and self-assessment program launched on January 3, 2018 as an alternative to the MOC exam, paid a one-time registration fee.

The largest expense was salary for six employees, including the Executive Director (0.25 FTE), Associate Executive Director (0.25 FTE), Administrator, MOC and Examinations Program Manager, Diplomate Relations and Communications Program Manager, and one Secretary. Salaries were 57% of total expense in 2018. ABNM operations and exam production is handled by ABNM staff in St. Louis and directors located throughout the United States using email and conference calls. The ABNM also meets twice a year. These two meetings, plus travel to other meetings, account for 15% of expenses. The ABNM is one of 24 member boards of the American Board of Medical Specialties (ABMS). ABMS membership dues account for 3% of expenses.

The ABNM had $2.42 million in an investment portfolio on December 31, 2018, which is managed by Wells Fargo Advisors. The value of the portfolio decreased 2.6% since December 31, 2017. The investment portfolio is the ABNM’s
reserve fund for unexpected financial difficulties, and major new initiatives.

The ABNM is financially robust, but maintaining a balanced operating budget is becoming more challenging. The ABNM has not increased annual MOC dues of $400 since 2012, or the initial certification exam fee of $2400 since 2009. The MOC exam fee has been decreasing by $205 each year, and will be zero in 2021. Starting in 2019, the cost for participating in CertLink is included in the annual MOC fee.

While the ABNM has not increased fees for the past 6 years, expenses have been steadily increasing due to inflation. The ABNM has avoided passing these inflationary increases to diplomates by cutting costs. The ABNM has significantly reduced expenses in the 2019 budget by reducing the number of staff in the ABNM office from 4 to 3 full-time employees, as well as reducing travel and meeting expenses. These measures are expected to save $93,901 compared to last year’s budget. The ABNM also plans to use $75,745 of investment income (3% of total investments). Unfortunately, these measures are not enough to balance the budget without increasing fees. The ABNM, therefore, has reluctantly decided to increase the annual MOC fee from $400 to $500, starting in 2019. The fee to take the initial certification exam will increase from $2400 to $2900. The ABNM hopes that diplomates will understand that the ABNM is being financially responsible, and is not indifferent to the financial burden on individual diplomates. The ABNM is also committed to improving MOC to be easier and more valuable for busy physicians, while continuing to uphold high professional standards for Nuclear Medicine.
After careful and detailed consideration, the ABNM has acquired its new logo. The board enthusiastically feels that the new design conveys the rapid progression and developments in nuclear medicine and molecular imaging. The new logo was developed with minimal cost to the board. The board has decided to keep the ABNM seal on all existing official documents such as board certificates of our diplomates.

As CertLink® continues to grow in participation and is proving to be a successful, practical and preferred platform in maintenance of certification, the ABNM continues to strive to improve communication with our diplomates by way of email as well as multiple social media platforms such as Facebook, LinkedIn, and Twitter. Please login to your ABNM profile and confirm your contact information is up to date by clicking on Edit Contact Info on the left menu within your profile.

We encourage our diplomates to communicate with the board via social media. The ABNM welcomes feedback as we strive to serve and respond to the concerns, needs and suggestions of our diplomates.

Communications Committee Chair Message

A New ABNM Logo

Esma Akin, MD, FACR - Communications Committee Chair, American Board of Nuclear Medicine
The ABNM has worked very hard on the MOC longitudinal assessment pilot project -CertLink®. The pilot was launched in January 2018, as an alternative to the MOC examination for diplomates whose certificates expire in 2018-2021. The ABNM extended participation to include all diplomates with valid time limited or lifetime certificate holders. Initially in October 2017, 127 diplomates registered and participated and currently we have 657 diplomates participating including 30 lifetime certificate holders. Recently the ABNM added a new pilot named CertLink-In-Training for nuclear medicine residents. Currently 83 residents are enrolled in this pilot program.

Overall the CertLink program has been very well received by our diplomates. Survey tools help to identify issues, as well as, support tickets completed while answering questions. These tickets and survey comments are frequently reviewed and have assisted with identifying IT issues with connectivity, registration, image display and access. The ABNM carefully reviews all comments made about question content since we are constantly trying to enhance question content and want to make sure that we test relevant walk around knowledge of Nuclear Medicine. Some problems have been identified by diplomates participating in the pilot project such as incorrect scores being posted on “Your Performance” card on the CertLink dashboard. ABNM tries to address your concerns as quickly as possible and usually communicates back with the solution very promptly.

It is hoped that diplomates have found CertLink a convenient and valuable method to maintain and update their knowledge and practice of Nuclear Medicine. Diplomates who do not want to participate in CertLink can take the MOC exam before their current certificate expires. The ABNM expects diplomates who have kept up with CME to find CertLink beneficial and perform very well without the need to concentrate on studying for an examination.

If you are interested in enrolling in CertLink, please complete the form found here:

https://www.abnm.org/index.php/registration-form/

Leonie Gordon
Associate Executive Director
In 2016, the U.S. Nuclear Regulatory Commission’s (NRC) Advisory Committee on the Medical Uses of Isotopes (ACMUI) Subcommittee on Training and Experience (T&E) Requirements for All Modalities was charged to periodically review the T&E requirements for the medical use of unsealed byproduct material (Title 10 Code of Federal Regulations (10 CFR) Part 35 Subparts D-H), and to make recommendations for changes, as needed.

Because of ongoing concerns about patient access to unsealed byproduct material for which a written directive is required, the Subcommittee was directed to review the T&E requirements for 10 CFR 35.300. The Subcommittee draft interim report issued on February 19, 2018 stated there were two reasons for reasonable concern for a near-future decline in patient access to care, including (1) U.S. Food and Drug Administration’s approval of Lutetium-177 DOTATATE for treatment of certain neuroendocrine tumors, and (2) the decrease in the number of first-time candidates sitting for the Certification Examination of the American Board of Nuclear Medicine.

The Subcommittee considered the establishment of a limited authorized user pathway that would shorten the current requirement for 700 hours of training and experience for radioisotope therapies.

The ABNM responded in a letter dated July 31, 2018 providing additional data and justification for maintaining the current requirements. The ABNM letter is available at http://abnm_wordpress_uploads.s3.amazonaws.com/wordpress/wp-content/uploads/ABNM-NRC_ACMUI_SubcommitteeTrainingExperience_Ltr-180731.pdf. After considering stakeholder feedback, the Subcommittee issued a draft report on February 7, 2019 stating it does NOT recommend the development of a limited-scope AU pathway for the administration of unsealed byproduct material where a written directive is required.

The ABNM was pleased with the recommendation of the Subcommittee, but notes that a final decision has not been made. If the NRC chooses to pursue the creation of a limited-scope AU pathway for unsealed byproduct material where a written directive is required, the Subcommittee strongly recommended that the AU candidate must acquire the basic knowledge topics in 10 CFR 35.390 and satisfactorily complete a formal competency assessment.

The ABNM will closely monitor developments. Diplomates are encouraged to visit the Subcommittee website at https://www.nrc.gov/materials/miau/med-use-toolkit/training-experience-evaluation.html for additional updates, and to provide feedback.
2018 Contribution List

Radium ($2000-above)
- Vaseem Chengazi, MD, PhD
- George Segall, MD

Indium ($500-$999)
- Gholam Berenji, MD, MS
- J. Anthony Parker, MD

Iodine ($200-$499)
- Eva Dubovsky, MD
- Sung Kim, MD
- Randall Loftus, MD
- Helen Nadel, MD
- Yogeshkumar Patel, MBBS
- Scott Perlman, MD
- Brijesh Reddy, MD
- James Woolfenden, MD

Technetium (Up to $199)
- Pavni Patel, MD

The ABNM appreciates all the Diplomates who support the ABNM by paying MOC fees and voluntary contributions every year. In addition, we would like to thank the above listed Diplomates for their generous support of the ABNM through a financial donation in 2018.
CONGRATULATIONS TO OUR NEW DIPLOMATES WHO RECENTLY PASS THE ABNM INITIAL CERTIFICATION EXAMINATION LAST OCTOBER 2018.

New ABNM Diplomates

Imad Abossallue, MD
Ahmad Atassi, MD
Ahmad Bakdalieh, MD
Samuel Bezold, DO
Po-Hao Chen, MD, MBA
Yin Chen, MD
Carlo De Cecco, MD, PhD
Joseph Donald, MD
Shifali Dumeer, MD
Eric Ehman, MD
Joseph England, MD
Timothy Fahey, MD
Thor Farnsworth, MD
Kiran Gangadhar, MBBS, MD
Karem Gharzeddine, MD
Bruce Hedgepeth, MD
Pedram Heidari, MD
Mitsutomi Ishiyama, MD
Jana Ivanidze, MD, PhD
Tatianie Jackson, MD
Shawn Karls, MD
Harleen Kaur, MBBS
Sonya Koo, MD, PhD
Elizabeth Lio, MD
David Lubin, MD, PhD
Soran Mahmood, MBChB
Matthew Manganaro, MD
Hossein Mehdkhani Karimabad, MD
Grace Newman, MD
Wahida Rahman, MD
Miguel Ramirez, MD, MBA
Ryan Reddy, MD
Sean Reynolds, MD
Paul Rodrigue, MD
Stephanie Rodriguez Santiago, MD
Ehab Saad Aldin, MD
Nathanael Sabbath, MD
Al Sardari, MD
Harry Schroeder, MD, PhD
Mark Sellmyer, MD, PhD
Mark Tran, MD
Roberto Valentin, MD
Pankaj Watal, MBBS, MD
Megan Zare, MD
CONGRATULATIONS TO OUR DIPLOMATES WHO
RECENTLY PASS THE ABNM
MAINTENANCE OF CERTIFICATION EXAMINATION
LAST OCTOBER 2018.

Diplomates Who Passed the 2018 MOC Examination

Sahar Al-Sebaie, MBBS
Rene Baez-Carattini, MD
Stephen Go, MD
David Hillier, MD, PhD
Patrick Kang, MD
Jonathan Kraas, MD
Anca-Oana Kranz, MD
Daniel Lee, MD, PhD

Gavin Mackie, MBBS
Asif Moinuddin, MBBS, MD
Steven Nitke, MD
Savas Ozdemir, MD
Samuel Pak, MD
Vijitha Reddy, MBBS
Heiko Schoder, MD
Ardita Tali, MD
2018 CE/MOC Exam Pass/Fail Rates

Maintenance of Certification (MOC)
94.12% Pass Rate

Initial Certification (CE)
78.57% Pass Rate

EXAMINEES
CE  56
MOC 17

PASSED
CE  44
MOC 16

FAILED
CE  12
MOC  1
ABNM Statement on ACMUI Changes in Authorized User Training and Education
George M. Segall, MD - Executive Director, American Board of Nuclear Medicine

As a result of “concerns of various stakeholders” the Nuclear Regulatory Commission (NRC) Advisory Committee on the Medical Uses of Isotopes (ACMUI) is considering whether the 700-hour training requirement to be an authorized user (AU) for parenteral radionuclide therapy is “placing a hardship on patient access” to alpha and beta therapeutic radiopharmaceuticals. The February 19, 2018, draft report of the ACMUI Subcommittee on Training and Experience (https://www.nrc.gov/docs/ML1805/ML18051A725.pdf) noted 2 developments since the ACMUI last considered the training issue nearly 15 years ago: (1) U.S. Food and Drug Administration approval on January 26, 2018, of $^{177}$Lu-DOTATATE for treatment of neuroendocrine tumors and the likely “considerable demand for this agent”; and (2) the “precipitous decrease in the number of first-time candidates” sitting for the American Board of Nuclear Medicine (ABNM) certification examination. A follow-up staff evaluation report on July 5, 2018, recommended reconsideration of the existing pathways to AU status with certain caveats, including the need for greater and broader stakeholder input (https://www.nrc.gov/docs/ML1818/ML18186A517.pdf).

In a letter sent to the ACMUI on July 31, 2018, the ABNM expressed its strong belief that the current requirement for 700 hours of supervised training and experience should not be changed and that reducing the minimum requirement for 700 hours of supervised training and experience for unsealed radioisotope therapy raised concerns for patient safety (https://abnm_wordpressUploads.s3.amazonaws.com/wordpress/wp-content/uploads/ABNM-NRC_ACmui_Subcommittee-TrainingExperience_Ltr.pdf). The ABNM took issue with the ACMUI statement that the number of candidates sitting for the 2016 certification examination indicated a future shortage of AUs. The number of initial ABNM certificates issued each year has been relatively constant from 1977 to 2015, with an average of 72 (range, 50–107 per year). Although a decrease in the number of candidates sitting the ABNM certification examination was seen in 2016, the number of initial certificates issued from 2016 to 2018 has been stable with an average of 45 (range, 43–49 per year). More than 3,600 diplomates are currently active (not deceased or retired), and there is no evidence of a shortage of AUs.

The ACMUI subcommittee draft interim report also noted a decrease in the number of Accreditation Council for Graduate Medical Education–accredited nuclear medicine training programs and residents, from 57 programs with 161 residents in academic year 2007/2008 to 41 programs with 75 residents in 2017/2018. The ABNM responded that the decrease in the number of programs and trainees is partly the result of an increase in the number of nuclear medicine physicians who are also certified in diagnostic radiology by the American Board of Radiology (ABR). Certification by the ABR decreases the duration of nuclear medicine training required for ABNM certification from 36 to 16 months, creating the appearance of decreasing numbers of residents, when it is the duration of training that is decreasing. Contributing to this trend is the increasing availability of dual training pathways in which residents training in nuclear medicine are counted as diagnostic radiology residents rather than nuclear medicine residents, consistent with the requirements of the ACGME and the ABR. The ABNM believes that dual training will result in better-trained physicians to meet the needs of patients in the era of molecular imaging and therapy. The ABNM sees no evidence that workforce issues have decreased patient access to care and believes that concern for potential future issues has not taken into consideration recent positive changes in nuclear medicine training.

Several recommendations and observations were made at the ACMUI meeting held on September 20 and 21, 2018: (1) review existing AU pathways to maintain safety, maximize patient access, and clearly define AU scope of practice; (2) need for comprehensive training in radiation physics, radiation biology, radiation instrumentation and mathematics, radiation protection and safety, patient release, and applicable regulations; (3) competency must be determined objectively for initial assessment and for maintenance of competency; (4) NRC staff should monitor potential AU shortages for 10 CFR 35.300 and include geographic data and practice patterns as part of this monitoring; and (5) greater stakeholder input is needed. The notes from this meeting are available on the NRC website (https://www.nrc.gov/docs/ML1825/ML18257A000.pdf).

The ABNM urges its diplomates to provide their input to the NRC. The ABNM also urges its diplomates to improve patient access to care by making parenteral radionuclide therapy available in all hospitals and outpatient clinics at which there are qualified nuclear medicine physicians.
The American Board of Medical Specialties (ABMS) is currently examining the maintenance of certification (MOC) process to enhance its value to diplomates. It is exploring alternative methods of assessment in place of the traditional secure examination. This has led to the formation of the CertLink program, in which the American Board of Nuclear Medicine (ABNM) is currently participating in a pilot project. This online learning tool, which uses adult learning theory, has been previously described in Newsline. It quizzes and teaches participating diplomates on a continuous basis at their convenience, requiring only that they answer 9 new questions and up to 4 repeat questions every quarter. We have completed the initial soft launch, which had 135 participants, and have just completed 2 quarters of the hard launch. A total of 527 diplomates are currently participating. Surveys have been conducted at regular intervals, and participating diplomates may fill in “support tickets” if necessary as they complete questions. These tickets are used to report concerns/problems about questions and may include comments, queries about images, queries about Internet and device usage, and reactions. We have received 230 tickets, with 181 answered satisfactorily within 72 hours. Concerns that were reported through this system included user questions/comments (55%), as well as queries about images (6%), computer functionality including browsers (16%), question display or presentation (18%), devices (cell phone, laptop; 2%), and validity of questions (3%). Each ticket is carefully reviewed by ABNM office staff, including, if relevant, the executive director and associate executive director. Tickets are also examined by the ABMS staff.

After completion of the soft launch, ABMS sent in December 2017 a survey to all participating diplomates, which included delivery of 9 questions and lasted for 1 quarter. The purpose was to obtain a basic understanding of diplomates’ overall Internet and device usage, preferred learning methods and resources, customer service needs, and early perspectives on the platform. The ABNM goal is to provide support for continuous improvement of the CertLink user interface and experience. Fifty-eight percent of all diplomates responded to the survey. Sixty-eight percent strongly agreed that they were encouraged that the board is pursuing a longitudinal assessment program as a potential replacement for the proctored exam at a secure testing center. Sixty-one percent would prefer to take a longitudinal assessment program like CertLink over the current every-10-year exam. Eighty-eight percent would strongly recommend the CertLink program to a colleague. Comments received included that the new program is a huge improvement and that it is the best continuing medical education (CME) available for nuclear medicine. Respondents preferred the continuous learning experience and online tutorials for keeping up to date in the field. A definite preference was reported for this method of learning, with many noting positively that it does not require a brief study crunch followed by a 1-day test. Many respondents liked the immediate follow-up and experiential learning that could lead to improved patient outcomes. Many diplomates also liked the use of technology with which they were comfortable. Respondents reported high usage of Internet resources to stay current. The sample population was highly engaged, used a broad array of medical resources, and was encouraged that CertLink will provide a useful CME alternative. Some respondents were ambivalent about CertLink and would prefer to have the 10-year test or ongoing CME requirements. This was to be expected.

ABNM has simplified its procedures considerably to document participation in all 4 parts of MOC. A complete description of all requirements is available on our website at https://www.abnm.org/index.php/moc-policy/. Diplomates must update their profiles each calendar year. We have simplified the process, and staff in the ABNM office are ready to help by e-mail or phone with any difficulties encountered. MOC Part 1—Professional Standing verifies Nuclear Regulatory Commission authorized user status, medical license(s), and current work experience and must be documented annually in profiles. MOC Part 2—Life Long Learning requires 25 CME credits and 8 self-assessment credits annually. Documentation of CME is still required. Diplomates may attest that they have met the requirements but should maintain documentation in case of an audit. Once registered with the CME Gateway, the user profile will show a summary of the cumulative 5-year goal and credits earned through organizations that participate in the CME Gateway. The user profile will also show any additional credits that have been entered. Participants in CertLink may not have to take the MOC Part 3 examination to maintain certification. More flexibility is available in MOC Part 4—Practice Performance Assessment, and many projects and activities performed in daily practice may qualify. To be given credit, participants can check in on the ABNM website and simply attest in their profiles that they are doing a project but should maintain documentation in case of an audit.

The ABNM listens carefully to all diplomates and has learned a lot about their experiences and learning preferences in CertLink and MOC. ABNM will continue to participate actively in CertLink and communicate any changes in the MOC process as they occur.