



## Message from the Chair

Erin E. Grady, M.D., FACNM

From the Desk of the Chair

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## Message from the Executive Director

George M. Segall, M.D., Executive Director

2016 Financial Report

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J. Anthony Parker, M.D., Ph.D.

Tony Parker's Farewell

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## 2017 New ABNM Board Members

Meet the Newest Members of the ABNM Board

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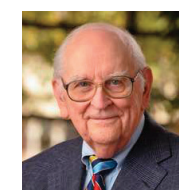


## Message from the Director of Communications

Esma A. Akin, M.D.

CertLink Communication from ABNM

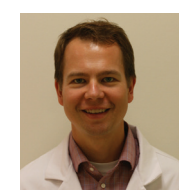
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## In Memoriam: Frederick J. Bonte, MD 1922–2016

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## CertLink™ New Assessment Initiative ABMS MOC Part III Pilot: ABNM CertLink™

Daniel A. Pryma, M.D., MOC Committee Chair

New Assessment Initiative

[More Details](#)



## From the ABNM Office

It's Application Season

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## SNMMI Newsline: ABNM Introduces CertLink

George M. Segall, M.D., ABNM Executive Director

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## Results of the 2016 Certification/ MOC Examination

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## FUTURE EXAMINATION DATES

Certification/MOC Examination

Week of October 2 - 7, 2017

Week of October 1 - 6, 2018

**Application period is NOW OPEN for both Exams  
April 1 - May 31, 2017**

**In-Training Examination:  
Week of January 8 - 13, 2018**

## Comments/Feedback

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, M.D., Executive Director  
American Board of Nuclear Medicine ([bnm@abnm.org](mailto:bnm@abnm.org))

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# TRACERS

The American Board of Nuclear Medicine

2017 Issue 1

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## Chair's Message



**Erin E. Grady, M.D., FACNM**  
*Chair, ABNM*

Dear Diplomates: it is with great honor and pleasure that I will serve you as Chair of the American Board of Nuclear Medicine (ABNM) this year. I certainly have big shoes to fill after Dr. Ghesani.

This will be a big year for the ABNM, and for you. We have some exciting things planned that we hope will bring value to you and help us all to stay on our toes with new developments in our field. As you have seen in prior issues of our newsletter, CertLink™ which is hosted by the American Board of Medical Specialties is about to become a reality. This October, we're planning for our launch of this method of fulfilling the Part 3 (which is known as "Assessment of Knowledge, Judgment and Skills" or better understood as the Maintenance of Certification exam) requirement. In case you've missed past issues of the newsletter, CertLink™ is a longitudinal learning and self-assessment program for ABNM diplomates. Those who meet the CertLink™ requirements will not have to take the MOC exam. This format will give you a question on a relevant practice topic with subsequent discussion and references that address the topic. A question will be available on a weekly basis, but these can be grouped to take as infrequently as quarterly.

If your certificate is set to expire in 2018-2021, you can sign up for this program, but if you don't want to participate, you will still be able to take the MOC exam. Diplomates whose certificates expire after 2021, and diplomates with lifetime certificates are also encouraged to enroll. The ABNM will be looking for 100 diplomates to start CertLink™ on October 1 this year, and provide feedback on the delivery, structure, and content to improve the value of the program. All other diplomates who enroll will start on January 1, 2018. Enrollment details will be available on the ABNM website soon. If you have other questions, you can email our new ABNM address aimed at addressing questions with this program: [CertLink@abnm.org](mailto:CertLink@abnm.org). I would be remiss not to mention the American College of Nuclear Medicine and their education subcommittee; they have been instrumental in helping us get started with this program. We send them a hearty thank you.

Another item that has been discussed at our last meeting is that of our logo. The ABNM is considering modernizing its logo as a symbol of the changing times and new ABNM initiatives. The ABNM will be asking for diplomate feedback on the proposed new design.

Since this year will be a busy one, we will be communicating more regularly. This will most likely come in the form of email updates. We also will be using social media to keep you updated. We currently have a presence on Twitter, Facebook and are looking forward to starting on LinkedIn and Doximity.

This year, we hope to focus on value. We hope you notice a difference.



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## Message from the Executive Director

### 2016 Financial Report



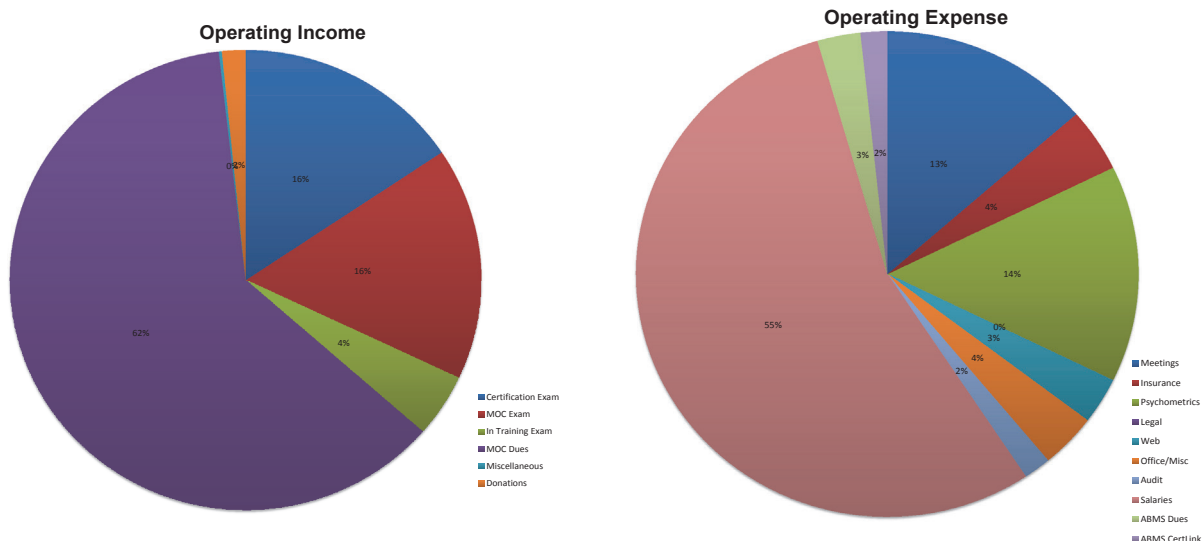
**George M. Segall, M.D.**  
Executive Director, ABNM

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. The firm conducts a less extensive financial review in alternate years. In 2016, UHY reviewed ABNM's financial statements for the year ending December 31, 2015. The report dated July 7, 2016, concluded, "We are not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in accordance with accounting principles generally accepted in the United States of America." The firm noted total assets of \$3,142,634, with an increase of \$19,314 compared to the prior year.

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 2016 with a budget of \$828,156 in operating income and \$826,211 in expenses. At the end of the year, total non-investment income was \$881,409. Operating expense was \$877,363. The ABNM ended the year with a net income of \$5,046.



A break down of the major income and expense categories for 2016 is shown in the following diagrams.

The largest percentage of income (62%) is 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, partially 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 2017 exam fee will be \$820. It will be phased out completely in 2021. The same decreasing fee schedule will be used for diplomates participating in CertLink™, a new longitudinal learning and self-assessment program being offered in 2018 as an alternative to the MOC exam.





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## Message from the Executive Director - *continued*

### *2016 Financial Report*

The largest expense is salary for six employees, including the Executive Director (0.25 FTEE), Associate Executive Director (0.25 FTEE), Administrator, Data Analyst, and two Secretaries. The percentage of expense for salary has decreased from 58% in 2011 to 55% in 2016. 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 account for 13% of expenses. The ABNM is one of 24 member boards of the American Board of Medical Specialties (ABMS). ABMS membership dues account for 14% of expenses.

The ABNM has \$2.25 million in an investment portfolio as of December 31, 2016, which is managed by Wells Fargo Advisors. The value of the portfolio increased 6.4% since December 31, 2015. The investment portfolio is the ABNM's reserve fund for unexpected financial difficulties, and major new initiatives.

The 2017 budget is balanced, with expected income and expense of \$875,970. 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. At the same time, expenses have been steadily increasing due to inflation. The ABNM plans to meet the financial challenges in 2017-2021 by increasing diplomate participation in Maintenance of Certification by making it easier and more valuable with new programs



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## Message from the Immediate Past Associate Director Reflections on My Time with the ABNM



**J. Anthony Parker, M.D., Ph.D.**  
*Associate Executive Director*

My term as Associate Executive Director ended at the conclusion of the Board meeting in February. I joined the Board as a member 14 years ago, December 2002. Looking back over that period of time, there have been a number of major changes in Nuclear Medicine and in the Board. At my first meeting, the Board was reviewing the results of the first recertification exam. In subsequent years the long term Executive Director, Bill Blahd, resigned and the Board hired a new Executive Director, Henry Royal. Henry led us into the strange new world of Maintenance of Certification (MOC). More recently, George Segall has taken over as Executive Director and Leonie Gordon has replaced me. They are leading us into the CertLink™ era.

When I was certified by the ABNM in 1972, there was a single point of contact with the Board. Since then, the medical community decided that a more continuous process was needed, first through periodic recertification and subsequently through the MOC process. Continuing medical education was part of the practicing physicians environment before MOC, but MOC formalized medical standing, CME, self-assessment, knowledge assessment and practice improvement.

Development of MOC by the medical profession allowed control of standard setting to be retained by the profession. Diplomates found that the initial attempt at MOC had too much emphasis on bureaucracy at times hindering rather than helping professional development. Now many Boards are engaged in trying to introduce evaluation during learning, making evaluation a side effect of the more important process, along with continuous professional development. As a small Board, the ABNM often does not have the resources available to bigger boards, even with the high cost of our MOC fee. However, a benefit of being small is that the board members and the executive staff are all practicing Nuclear Medicine Physicians. They have an immediate reality check on how new and changing requirements affect their own practices.

FDG-PET/CT was just becoming a widespread clinical reality when I joined the Board. PET/CT is a prime example of a “disruptive innovation”. The Board needed to appoint new members with expertise in anatomic imaging and made major changes in the certifying and recertification exams to reflect this change in practice. At about the same time there was an effort by the government to limit “high technology studies”; particularly hard hit was myocardial perfusion imaging. Both of these changes were disruptive to the Nuclear Medicine Physician community and especially young professionals. We all had to learn how to interpret CT, a process we subsequently learned to call MOC. CT changed our task from correlating with other imaging to primary interpretation. Over the past decade, there has been a vigorous discussion about how best to incorporate anatomy with our traditional role as molecular imagers. With the help of the Nuclear Medicine community, the direction now seems to be favoring combined ABNM and Radiology training. There are several experiments underway to define the best initial training in Nuclear Medicine, and MOC will also need to continue to evolve.

When I joined the Board, there had been a long drought in new radiopharmaceutical approval. The pace of introduction on new radiopharmaceuticals has certainly changed in the last few years. New radiopharmaceuticals are the lifeblood of the specialty. With the introduction of new radiopharmaceuticals, there has been a renewed emphasis on therapy. Both of these developments favor the unique knowledge and skills of Nuclear Medicine Physicians. We have weathered the challenges we faced during my early years on the Board. With the introduction of new radiopharmaceuticals, with the renewed emphasis on therapy, and with the ABNM's efforts to improve MOC, I leave the Board at a time when the future looks bright for Nuclear Medicine and for the ABNM.



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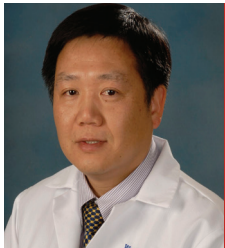
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## 2017 New ABNM Board Members

*Meet the newest members of the ABNM Board*



**Wengen Chen, MD, PhD, MPH, FACNM**

*Associate Professor*

*Department of Diagnostic Radiology and Nuclear Medicine*

*Director, Nuclear Medicine Residency Program*

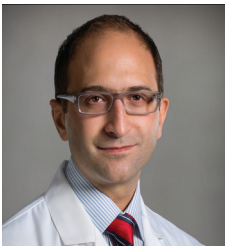
*University of Maryland Medical Center*

*Baltimore, Maryland*

Dr. Chen completed his Nuclear Medicine Residency and PET/CT Fellowship trainings in the Hospital of the University of Pennsylvania in 2009. Before that, he was a postdoctoral research scientist and an associate research scientist at Columbia University from 1999 to 2005, working on the molecular mechanisms of lipid metabolism and atherosclerosis development. His current research interest is molecular imaging of atherosclerosis. He has a unique combination of extensive experiences in both basic science and molecular imaging of atherosclerosis. He has published more than 60 original papers and reviews. He was a PI for a pilot research grant in molecular imaging of atherosclerosis sponsored by the SNMMI in 2008, and currently working on an NIH R01 grant as a co-investigator on quantitative analysis of FDG PET/CT for esophageal cancer treatment response evaluation, as well as on several clinical trials.

He is a Board of Directors of the Cardiovascular Council (CVC) of the SNMMI, and has been actively involved in the Council's activities, including organizing and moderating the education sessions of CVC in the SNMMI annual meetings and mid-winter meetings. He is currently the Treasurer of the Mid-Eastern Chapter of the SNMMI. Dr. Chen also serves on the Abstract Review Panel for endocrinology and neuroendocrine tumor sections of the SNMMI Annual Meeting Scientific Program Committee.

Dr. Chen serves on the editorial board of the Journal of Clinical Nuclear Medicine and is an active reviewer for other journals including JACC Cardiovascular Imaging and Journal of Nuclear Medicine. He was awarded the "Elite Reviewer" by the JACC in 2013. As the nuclear medicine residency program director, he is actively involved in teaching and training of Nuclear Medicine and Diagnostic Radiology residents, as well as Cardiology Fellows. As a new ABNM board member, he hopes to make his contributions to the education in Nuclear Cardiology and Endocrinology areas.



**Ghassan E. El-Haddad, M.D.**

*Assistant Member, Interventional Radiology*

*Department of Diagnostic Imaging*

*Section Head, Radionuclide Therapy Program*

*Moffitt Cancer Center and Research Institute*

*Tampa, Florida*

Dr. Ghassan El-Haddad is the Section Head for the Radionuclide Therapy Program at H. Lee Moffitt Cancer Center and Research Institute. He is an Assistant Member in the Division of Vascular and Interventional Radiology at Moffitt Cancer Center, and an Assistant Professor of Radiology and Oncologic Sciences at the University of South Florida in Tampa, FL.

He received his medical degree from the Lebanese University in Beirut, Lebanon. After an internship at SUNY Upstate Medical University, he completed his residency in Nuclear Medicine as well as a fellowship in Nuclear Oncology at the Hospital of the University of Pennsylvania (HUP) in Philadelphia, PA.

Following 2 years of practice at the PET center of the Biomedical Research Foundation of Northwest Louisiana, he completed a Radiology Residency at St Vincent's Medical Center/University of Connecticut in Bridgeport, CT, followed by a fellowship in Vascular and Interventional Radiology at the Hospital of the University of Pennsylvania.

He is board certified by the American Board of Nuclear Medicine and the American Board of Radiology.

He is an active member of multiple medical societies, including the Radiological Society of North America (RSNA), Society of Nuclear Medicine and Molecular Imaging (SNMMI), Society of Interventional Radiology (SIR), American Roentgen Ray Society (ARRS), Florida Society of Clinical Oncology (FLASCO), and corresponding member of the European Society of Radiology (ESR).

He is a member of the Targeted Radioisotope Therapy outreach working group for the SNMMI. He is also a member of several committees including the Nuclear Medicine/Molecular Imaging Scientific Program Subcommittee for the ARRS. He is co-investigator on several phase I/II, and phase III multicenter randomized clinical trials, on radio-immunotherapy, alpha targeted therapy, and peptide receptor radionuclide therapy.



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## 2017 New ABNM Board Members - *continued*

*Meet the newest members of the ABNM Board*



**Ruth Lim, MD**

*Radiologist, Massachusetts General Hospital*

*Assistant Professor of Radiology, Harvard Medical School*

Dr. Lim is a dual subspecialty-certified radiologist working in the Division of Pediatric Radiology and the Division of Nuclear Medicine and Molecular Imaging/PET-CT at the Massachusetts General Hospital, where she completed her residency in Diagnostic Radiology. She earned a B.S. In Nuclear Engineering from the Massachusetts Institute of Technology, M.D. from the

University of Toronto Faculty of Medicine, and is also a graduate of the Harvard Joint Program in Nuclear Medicine. Her clinical and research interests include oncologic imaging, urinary tract imaging, PET/CT, PET/MR, and radiation dose reduction in children.

Dr. Lim is the Chief Medical Officer of New England PET Imaging System, and is the president-elect of the SNMMI Pediatric Imaging Council. She enjoys teaching and mentoring trainees from multiple radiology and nuclear medicine training programs in the Boston area. She finds it greatly rewarding when trainees go on to pursue careers in nuclear medicine or pediatric imaging. Dr. Lim grew up in Toronto, Canada, and has worked as a staff radiologist at the Hospital for Sick Children.





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## Message from the Director of Communications

*Esma A. Akin, M.D. – Communications Committee Chair*



**Esma A. Akin, M.D.**  
*Communications Committee  
Chair, ABNM*

With the launch of CertLink™ by ABMS, a web based assessment platform that uses smart mobile technology to explore and implement new assessment approaches, the executive committee and the directors of the ABNM are excited about the upcoming changes to maintenance of certification for the ABNM diplomates. The ABNM will be one of the first and leading ABMS member boards to pilot this method using new technology.

Together with many other specialty boards, the aim of the ABNM is to continue to serve our members by evaluating new and different methods of assessment which may include instantaneous and real time feedback to the diplomate on their knowledge and performance. The move away from traditional MOC testing with pass/fail results to a more practical and updated approach aims to bring true value and tangible benefit to the daily practice of the Nuclear Medicine Physician.

Our diplomates will receive frequent updates about these changes in concise and timely communication via email. As we move towards these exciting and ambitious changes for better service and value for our members, remember to check your mailbox for messages with the newest updates and information on how to maneuver the web based platform.





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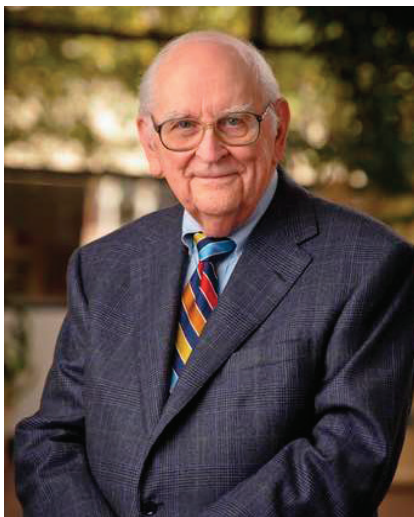
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## In Memoriam: Frederick J. Bonte, MD 1922–2016

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Frederick James Bonte, MD, a professor emeritus of radiology at the University of Texas Southwestern (UTSW) Medical Center (Dallas) and an innovator in nuclear medicine, died on November 28, 2016. He led the creation of the university's first radiology department, became its first chair, established one of the first academic clinical nuclear medicine laboratories in the United States, and served as dean of the UT Southwestern Medical School.

"Dr. Bonte was one of the true pioneers in nuclear medicine, helping to establish the American Board of Nuclear Medicine [ABNM] after having made seminal contributions to the field. I was fortunate to be able to chat in depth with Fred about the history of the department on numerous occasions and came to know a brilliant, witty, and compelling 'father' of the Department of Radiology, with a lifelong passion for teaching and discovery. Our memories of him will forever be an inspiration," said Neil M. Rofsky, MD, chair of the Department of Radiology at UTSW.

Frederick Bonte was born in Bethlehem (PA) in 1922 and received his undergraduate degree from Western Reserve University (Cleveland, OH) and his medical degree from the Western Reserve University School of Medicine. After enlisting in the U.S. Army during

World War II and assignment to radiology training, he trained at the radiology department at Percy Jones Hospital (Battle Creek, MI). As a captain, he was sent to the U.S. Army Air Corps Lowry Field (Denver, CO) as chief of the x-ray service. He returned to Western Reserve in 1948 on a fellowship program with the U.S. Atomic Energy Commission Atomic Energy Research Project. At Western Reserve he rose through residency to become a faculty member and chief of radiation therapy and nuclear medicine.

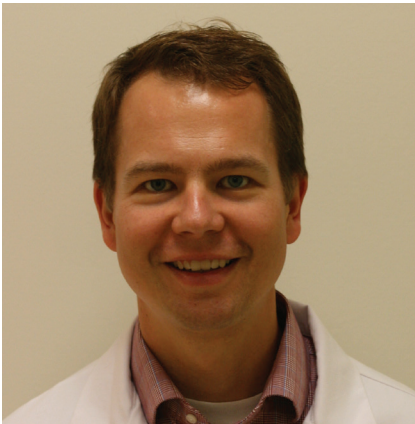
In 1956, Dr. Bonte was recruited to serve as the first chair of the newly formed radiology department at UTSW, as well as chief of radiology at Children's Medical Center (Dallas), the Veteran's Administration Hospital of Dallas, and Presbyterian Hospital of Dallas. In 1973 he began 7 years of service as dean of the UTSW Medical School, returning to the clinic and laboratory as a professor in 1980. He served as director of the UTSW Nuclear Medicine Center until retiring in 2012 (at the age of 90).

With more than 200 peer-reviewed publications from 1950 to 2013, Dr. Bonte's work covered a broad spectrum of techniques and innovations in nuclear medicine. In the 1970s, along with Robert Parkey, MD, he began the development of clinical applications of  $^{99m}\text{Tc}$ -stannous pyrophosphate scintigraphy in acute myocardial infarction. His work with SPECT explored characteristic cerebral blood flow in Alzheimer disease and enhanced understanding of the origins of neurologic findings in veterans returning from the Gulf War. He helped establish the ABNM and served as its president from 1977 to 1980. He was a trustee of the American Board of Radiology (ABR) from 1969 to 1975. He served as president of the Southwestern Chapter of SNM, the Texas Radiological Society, and the Dallas County Medical Society. He was a member of the Texas Medical Association House of Delegates for 23 years and was the longstanding SNM delegate to the American Medical Association (AMA), as well as a life member of the National Council on Radiation Protection and Measurements. He was chair of the AMA Section on Nuclear Medicine from 1985 to 1987 and again from 1989 to 1991. He was recognized with numerous awards, including the Georg Charles De Hevesy Nuclear Medicine Pioneer Award from the SNM (1995), the President's Medal from the American College of Nuclear Physicians (1997), the ABNM Lifetime Award (2008), and the ABR Lifetime Award (2010).

The library at Parkland Memorial Hospital (Dallas) was named for him in 1976, and in 1994 the Dr. Fred Bonte Professorship in Radiology was endowed at UTSW. In addition to an active life of travel and exploration, he also maintained a private model train room that fascinated generations of children and other visitors. At his retirement in 2013, UTSW officials said in a reception program that they had "basked in his smile, laughed at his clever repartee, and shook our heads at the breadth of knowledge and depth of his inquiring mind." He is survived by his wife, Cecile, 6 children, and numerous grandchildren.



## New Assessment Initiative— ABMS MOC Part III Pilot: ABNM CertLink™



**Daniel A. Pryma, M.D.**  
*MOC Committee Chair, ABNM*

Maintenance of Certification (MOC) has, unfortunately, taken on many negative connotations both in the press as well as in the minds of many practicing physicians. However, the overarching goals of MOC—requiring, encouraging and facilitating practicing physicians to continue to learn, adapt and evolve to new developments in our specialties throughout our careers—are excellent and widely supported ones. First generation MOC programs, though, did little to facilitate the lifelong learning that MOC hopes to foster and instead caused consternation through new requirements and periodic high-stakes exams. Rather than abandon the excellent principles of MOC, we are embarking on an entirely new way of delivering MOC through the ABNM's participation in the pilot CertLink™ Assessment Platform sponsored by the American Board of Medical Specialties (ABMS).

Briefly, CertLink™ is a platform that allows continuous assessment of knowledge delivered in a way that provides immediate feedback and learning with the opportunity to show evidence of that learning on subsequent similar questions. During the five-year pilot program, participating diplomates will answer online questions on a quarterly basis with 13 questions per quarter (one per week). With flexibility in mind, a diplomate may choose to answer the questions all at once or spaced however it suits scheduling constraints, preference, etc. Each question is expected to take only 1-2 minutes to answer (though some image-rich questions may take longer but never more than 5 minutes). Upon submitting an answer, the diplomate will immediately receive feedback on the correct answer with an explanation,

key points and references for further reading. Some of the questions answered incorrectly will be presented again to the diplomate in the next quarter; if answered correctly full credit will be given. Successful participation in CertLink™ will take the place of the secure MOC exam. This is, we believe, clear evidence that CertLink™ is about helping our diplomates achieve the principles of MOC rather than putting their careers into jeopardy through a high-stakes exam taken once every ten years.

The ABNM CertLink™ Pilot development is underway and is targeted for launch in late 2017. It will last for 5 years, during which time the process and platform will be evaluated and improved as needed. During the pilot, selected participants will be regularly surveyed to capture their feedback and suggestions for improvement. The results of the pilot and surveys will be analyzed to determine if this new assessment is reliable and valid and can be a permanent alternative to the current exam. The ABNM CertLink™ Pilot will be delivered through the CertLink™ platform, which is accessible via web browser or mobile app. Volunteers will be expected to commit to the duration of the pilot and provide feedback to the ABNM on the pilot. Participation in the MOC assessment pilot will allow our diplomates to have a voice and active role in creating the next generation of MOC assessment. The process will allow the diplomate to individualize the recertification process while learning. Diplomates will choose when, where and how they take questions, presented one at a time, with the ability to end a session after answering any single question. Participating diplomates with time limited certificates will have their certificate expiration date extended through their participation in CertLink™.

Longitudinal assessment represents an evolution from traditional, point-in time secure exams. In addition to being an assessment of learning, this will be an assessment for learning. The assessment will incorporate many of the features of the American Board of Anesthesiology's (ABA) MOCA Minute™. See <http://www.theaba.org/MOCA/MOCA-Minute> for more information on their program. The ABNM has heard your concerns about the secure MOC examination and the relevance of MOC to your practice. Assessments offered through the CertLink™ platform are intended to offer exposure to relevant information to support diplomates' lifelong learning. The assessment is also expected to fulfil the ABNM's mission to protect the public by ensuring that diplomates are current in their medical knowledge.

We will begin with a small number of diplomates initially and then expand open enrollment. A significant challenge to make this assessment relevant for all ABNM diplomates will be developing a sufficiently large and diverse enough item bank of questions to be able to offer academic and practice relevant assessment. To this end, we have already received excellent and greatly appreciated assistance from members of the American College of Nuclear Medicine (ACNM) but appreciate all volunteers, including residents and fellows, who may want to participate in item writing. Please do not hesitate to contact us at [abnm@abnm.org](mailto:abnm@abnm.org) with questions, comments or if you would like to volunteer.



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## From the ABNM Office: *It's Application Season*



Around the ABNM office we are in full application mode. The 2017 Certification and Maintenance of Certification application season kicked off on April 1, 2017 and ends on May 31, 2017. Additional information about the examination schedule, fees, as well as the exam blueprint, is available on the ABNM website, [www.abnm.org](http://www.abnm.org), under the Certification Exam and the MOC tabs in the navigation bar at the top of the page.

In order to complete a Certification Application, you will need to create an ABNM account if you have not yet established one. To do this, go to [www.abnm.org](http://www.abnm.org), click on Create Account, in the Log In portion of the website home page. Once your account is created, and you are logged in, click on Certification Exam in the left navigation menu. You will then be prompted to begin the application.

In order to complete a Maintenance of Certification Examination, you will first need to login to your profile on the ABNM website. Then, click on MOC – Part 3 in the left navigation menu. You will then be prompted to begin the application.

Exam related and MOC annual fee payments can be made online via credit card through the ABNM Website. To pay invoices online, Log in to your ABNM profile, and on the left navigation bar click on Invoices. A list of invoices will then be displayed. To access the invoice you wish to pay, click on the Invoice ID number, then scroll down and enter in the Billing Address Information for the credit card you are submitting payment with. Finally, enter the Credit Card Information and click on the Process Payment button. A receipt for your payment will be displayed and also emailed to you.

If you need assistance in completing your application or making payments, our employees, Monica, Julie, and Maria are ready to assist you. Please email the ABNM office staff at [abnm@abnm.org](mailto:abnm@abnm.org) or call 314-367-2225. The office hours are 7:30 am to 4:00 pm Central Standard Time.





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## ABNM Introduces CertLink

*George Segall, MD, Executive Director, American Board of Nuclear Medicine*

*Reprinted with permission SNMMI Newsline J Nucl Med 2016 57:9N*

The American Board of Nuclear Medicine (ABNM) and 6 other member boards of the American Board of Medical Specialties (ABMS) have been working with the ABMS to develop a new platform for longitudinal learning and self-assessment that would give diplomates an alternative to taking a secure examination to fulfill the Part 3 requirement (Assessment of Knowledge, Judgment, and Skills) of Maintenance of Certification (MOC™). The ABNM currently requires diplomates certified since 1992 to pass a secure examination every 10 years as one of the requirements for recertification. The examination includes 120 multiple-choice questions, each with a single best answer. It is administered over 3.5 hours at Pearson VUE testing centers throughout the United States and in select cities abroad. More than 100 diplomates take the examination each October (136 candidates in 2016). The pass rate is typically 97%. Despite the high pass rate, taking a secure examination causes anxiety among diplomates, who are highly qualified physicians, and is one of the reasons diplomates with lifetime certificates (and some diplomates with time-limited certificates) choose not to participate in MOC. Although most of the questions on the ABNM MOC exam test image interpretation and patient management skills, some questions test simple recall of facts needed for clinical practice. The ABNM recognizes that performance on the MOC examination may not correlate with performance in clinical practice.

Beginning this year, the ABNM will launch a 5-year pilot program called CertLink™. The CertLink programs of the 7 participating ABMS member boards differ slightly to meet the individual needs of their physicians, but all programs will use a common platform that will deliver multiple-choice questions to participating diplomates at regular intervals on any device with Internet access, including cell phones, tablets, laptops, and desktop computers. Diplomates will have a limited time to answer questions, and immediate feedback on their answers will be available. ABNM diplomates who answer a question incorrectly the first time will be given a second opportunity to answer the same or a very similar question (clone) after a few weeks. The repetition reinforces learning acquired in reading the critique that is part of immediate feedback received by diplomates. Not all program details have been finalized. The following summary is provided to introduce the basic pilot program structure to diplomates. A more complete description is available at <https://www.abnm.org/index.php/moc-assessment-initiative/>.

Diplomates whose certificates expire in 2017 must still take the MOC examination. Diplomates whose certificates expire in 2018–2021 who wish to enroll in CertLink to meet MOC Part 3 requirements must enroll in 2017. Diplomates who enroll in 2017 will have the expiration dates of their current certificates extended to 2021. Diplomates who do not enroll will not have the expiration dates of their certificate extended and will need to take the MOC examination prior to expiration of their certificates. Details regarding CertLink enrollment of diplomates whose certificates expire in 2022 are still to be decided. Diplomates with lifetime certificates may also enroll in CertLink. Diplomates with lifetime certificates who do not participate in CertLink and do not take the MOC exam will be listed as “not required to participate in MOC” and will remain certified by the ABNM.

Thirty-six new questions will be introduced each year, 4 in each of the 9 major exam categories (basic science, cardiovascular, endocrine, gastrointestinal, genitourinary, musculoskeletal, neurology, oncology, and pulmonary). Diplomates will be required to respond to 36 new items per year, averaging 9 new items per quarter. If an item is answered incorrectly, a clone may be presented in a subsequent quarter to allow a diplomate another attempt to answer the item correctly. The number of new questions plus clones will not exceed 13 questions per quarter. The frequency of question delivery can be customized by diplomates from one question per week up to 13 questions presented once per quarter. A diplomate may view an item anytime during the quarter in which the item is delivered (shelf-life up to 13 weeks), but a response will be required as soon as the item is viewed.

Performance standards (passing scores) have not been determined but will not be more stringent than current performance standards for the MOC examination. Initial minimum requirements include participation each quarter and answering all 36 new questions per year. These requirements may be modified for circumstances beyond the control of a diplomate. Diplomates will receive periodic reports about their performance no less than quarterly. Diplomates who do not meet performance standards will be able to take the MOC examination for recertification. As an added incentive to participate in CertLink, it is hoped that diplomates will be able to earn American Medical Association Category 1 Continuing Medical Education credit, plus ABNM Self-Assessment Module (SAM) credit, so that a full year of participation in CertLink will also fulfill 1 year of SAM requirements.

The ABNM hopes that diplomates will find CertLink to be an easy and efficient way to meet MOC requirements, as well as a valuable learning and self-assessment tool. Please send your comments and suggestions to [abnm@abnm.org](mailto:abnm@abnm.org).



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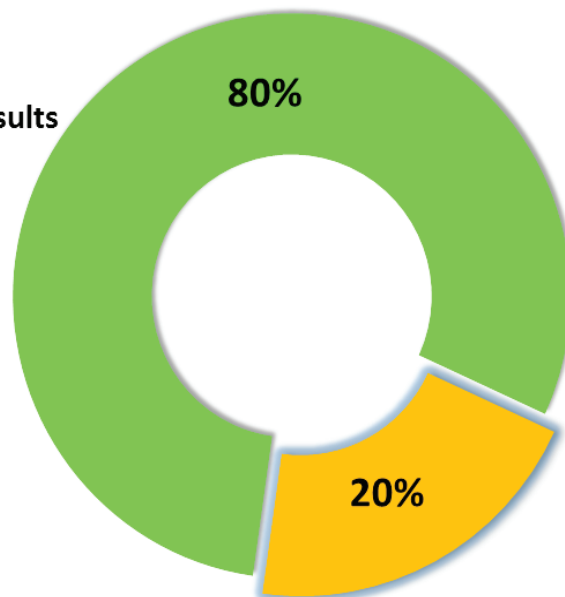
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## Results of the 2016 Certification/ MOC Examination

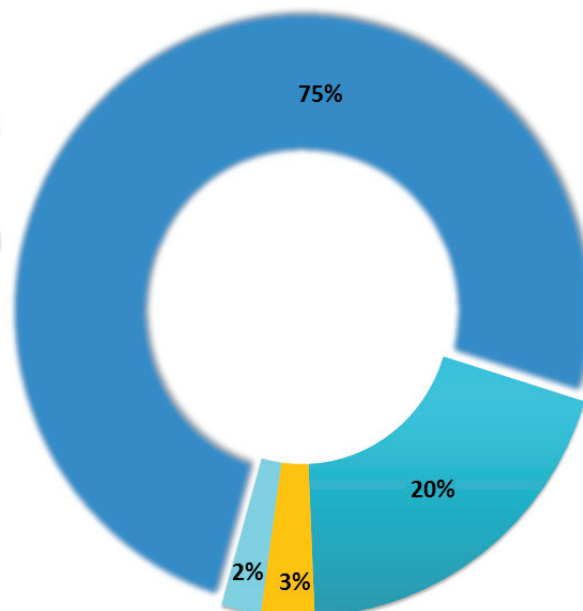
### 2016 Initial Certification Examination Results

- 43 Candidates Passed
- 11 Candidates Failed



### 2016 MOC Examination Results

- 3 Board of Director Passed
- 104 Time-Limited Diplomates Passed
- 27 Lifetime Diplomates Passed
- 4 Diplomates Failed





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## 2016 Contribution List

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 following diplomates for their generous support of the ABNM through a financial donation in 2016.

### Radium (\$2000-above)

George Segall, M.D.

### Fluorine (\$1000-\$1999)

Puneet Chandak, M.D.

Vaseem Chengazi, M.D., Ph.D.

Bennett Greenspan, M.D.

Robert Kao, M.D.

### Indium (\$500-\$999)

Vishwas Apte, M.D.

David Mankoff, M.D., Ph.D.

J. Anthony Parker, M.D., Ph.D.

### Iodine (\$200-\$499)

Jorge Brito, M.D.

Eva Dubovsky, M.D.

Medhat Gabriel, M.D.

Leonie Gordon, M.D.

Judith Ho, M.D.

Sam Krinsky, M.D.

Sudha Narasimhan, MB BCh

Nghi Nguyen, M.D., Ph.D.

Ryan Niederkohr, M.D.

Yogeshkumar Patel, MB BS

Scott Sherman, M.D.

Thomas Vreeland, M.D.

James Woolfenden, M.D.

### Technetium (Up to \$199)

Frank Altomare, Jr., M.D.

Robert Carretta, M.D.

Rama Eachempati, M.D.

Robert Jaffe, M.D.

Scott Perlman, M.D.





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## New Diplomates Who Passed the 2016 Certification Examination

Alexander Antoniou, M.D., MBA, MA

Casey Bohl, M.D., Ph.D.

David Brandel, M.D.

Jared Burlison, M.D., Ph.D.

Shawn Carter, M.D.

Karen Chen, M.D.

Hisham Dahmouh, MBBS

Silvina Dutruel, M.D.

Daniella Ferraro Fernandes Costa Pinho, M.D.

Robert Flavell, M.D., Ph.D.

Kristina Hoque, MS, M.D., Ph.D.

Lida Jafari, M.D.

Amitjeet Kalirao, D.O.

Jin Lim, M.D.

Lars Lohrmann, M.D.

Michael McDonald, M.D., Ph.D., M.S.

Rustain Morgan, M.D., MS

Lorenzo Nardo, M.D.

Ephraim Parent, M.D., Ph.D.

Ashley Prosper, M.D.

Jing Qi, M.D., Ph.D.

Ramya Shankaranaraya Rao, M.D.

Alan Rosenbach, M.D.

Dillenia Rosica, M.D.

Steven Rowe, M.D., Ph.D.

Kiran Sargar, M.D.

Philip Scherer, M.D.

Ila Sethi, MBBS

Charanjeet Singh, MBBS, M.D.

Lewen Stempler, M.D.

Sanjit Tewari, M.D.

Rima Tulbah, MBBS

Evrin Bengi Turkbey, M.D.

Matthew Wagner, M.D.

Bin Wang, D.O.

Rebecca Wu, M.D.

Laiping Xie, M.D., Ph.D.

Kavitha Yaddanapudi, M.D.

Randy Yeh, BS, M.D.

Vijay Yerubandi, M.D., MS

Claudia Zacharias, M.D.

Jian Zhang, M.D.

Jiefu Zheng, M.D.



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## Diplomates Who Passed the 2016 MOC Examination

Mohei Abouzied, MB BS	Allison Griffiths, M.D.	Jose Rodriguez, M.D., MSBE
Tony Abraham, D.O., MPA	Shikha Gupta, M.D., M.P.H	Rahat Sadar, M.D.
Wayne Adams, M.D.	Naresh Gupta, MB BS	Umer Salman, MB BS
Recai Aktay, M.D., MPH	Erno Gyetvai, M.D.	Elmer Santos, M.D., Ph.D.
Mir Alikhan, MB BS	Myo Han, M.D.	Salil Sarkar, M.D.
Abdulaziz Almghrahi, MBChB, FRCPC	Richard Held, M.D.	Stephen Scharf, M.D.
Anupa Arora, M.D. MPH	Robert Hellman, M.D.	Gregg Schubach, M.D.
Robert Ashlock, M.D.	Andrew Holz, M.D., MBA	David Schuster, M.D.
Ellen Bahtiarian, M.D.	Barry Huang, M.D.	Julio Sepulveda, DVM, M.D.
Sunil Bajaj, M.D.	Farzin Imani, M.D, Ph.D.	Anton Serafini, M.D.
Sushama Bhargava, M.D.	Sung Kim, M.D.	Miguel Serpa, M.D.
Ashley Blurton, M.D.	Alan Klitzke, M.D.	Sankaran Shrikanthan, M.D.
Nicolaas Bohnen, M.D.	Ronald Korn, M.D., Ph.D.	Daniel Silverman, M.D., Ph.D.
Luke Bolek, M.D.	Biju Kunjummen, D.O.	Amolak Singh, M.D.
Yong Bradley, M.D.	Daniel Lalonde, M.D.	Gary Smith, M.D.
David Brandon, M.D.	Jean Lee, M.D.	Jaideep Sohi, M.D.
Robert Bridges, M.D.	David Lewis, M.D.	Gilberto Sostre, M.D.
Geoffrey Browne, M.D.	Ruth Lim, M.D.	Michael Spieth, M.D.
Gary Caputo, M.D.	Edward Lubat, M.D.	Shyam Srinivas, M.D., Ph.D.
Fernando Cesani-Vazquez, M.D.	Ajay Malpani, M.D.	Michael Starsiak, M.D.
Beth Chasen, M.D.	Timothy Manzone, M.D., JD	Martin Sternberg, M.D.
Sofia Chatziioannou, M.D.	Gilbert Martinez, M.D.	Taylor Stroud, M.D.
Wengen Chen, M.D., Ph.D, MPH	Robert Meredith, M.D.	Jongdae Suh, M.D.
Andrew Childs, M.D., Ph.D.	John Miliziano, M.D.	Luis Tamara, M.D.
Edison Chiu, M.D.	Christopher Miller, M.D.	Tom Tan, M.D.
Steve Cho, M.D.	Gregg Miller, M.D.	Ghulam Thaver, MBBS
Esther Choi, M.D., MS	P. Mozley, M.D.	Mark Tulchinsky, M.D.
Hubert Chuang, M.D., Ph.D.	Maureen Mulcahy, M.D.	Jean-Luc Urbain, M.D., Ph.D.
Johng Chun, M.D.	Marsha Naydich, M.D.	Thanh Van, M.D.
Michel-Alexis Courtines, M.D.	Richard Noto, M.D.	Christine Vetter, Bsc, M.D., MBA
Soumendu Das, MB BS	Shah Numani, M.D.	Erez Vidan, M.D.
Lorraine De Blanche, MBCh	John Overbeck, M.D.	Vijay Viswanathan, M.D.
Rajesh Dhillon, M.D.	William Pace, M.D.	Boyd Vomocil, M.D.
Keith Dockery, M.D., MS	Jannisse Pagan, M.D.	Thomas Vreeland, M.D.
John Dohrman, M.D.	Subhash Paknikar, MB BS	Samuel Wang, M.D.
Thomas Dresser, M.D.	Patrick Peller, M.D.	Kevin Weber, M.D.
Lawrence Elgarresta, M.D.	Juan Perez-Monte, M.D.	Ian Weissman, D.O.
Ghassan El-Haddad, M.D.	Harold Pretorius, M.D., Ph.D.	David Williams, M.D.
Patrick Ford, M.D.	Carla Quijano, M.D.	Gethin Williams, MBBS, Ph.D.
Carlos Garcia, M.D.	Joseph Rajendran, M.D.,DMRT,FASNC, FASNMM	William Wince, M.D.
Lourdes Garcia Alonso, M.D.	Barbara Raphael, M.D.	Louis Winner, M.D.
Stephen Gerard, M.D.	Guy Ravad, M.D.	Steven Yang, M.D.
Leonard Goldfarb, M.D.	David Rayne, M.D.	Wendell Yap, M.D.
Neil Green, M.D.	Michael Roarke, M.D.	Mona Yasrebi, M.D.
Landis Griffith, M.D., Ph.D.		Jack Ziffer, Ph.D., M.D.