

the presumption should be that the world will shift to value and those disciplines offering better outcomes, more accurate diagnostics, greater safety, and lower cost; and third, a solution developed jointly, through the breaking down of silos, will always serve stakeholders better than competing sectors that focus on the success of their own individual silos.

### Action Items

The fusion of the ABR and the ABNM as proposed in different ways by Drs. Osborne, Beylertgil, and Graham is a significant opportunity to form an entity that clearly has the potential for additional value. The task force recommendations should proceed with targeted amendments.

The new pathway should dominate the value-added components of the imaging specialties. Advocacy on items sensitive to the Food and Drug Administration and the Centers for Medicare and Medicaid Services should be handled by the most knowledgeable of stakeholders.

When possible, programs should merge or close. Elimination of redundancy and of the training pathways that will not produce practitioners should proceed rapidly. Although change is difficult, one cannot jump a 20-foot gorge with two successive 10-foot jumps.

A top-down strategy will not work. Good change will be effected only with input from all stakeholders. Traditional grassroots may not work, but innovation from stakeholders at the beginning of training needs to be brought to the fore.

### CONCLUSION

It is with some degree of trepidation that we submit these recommendations, as the ABR–ABNM task force proposal has not been adopted at the writing of this letter. The proposal will, however, likely exist in some modified form at the time the letter is published. Our perspective is not an endorsement of the dissolution of the ABNM. We believe that if the board proceeds down this road a very transparent neutral zone will need to exist where some of the most important issues can be addressed. It is clear, for example, that a large gap exists between the 4-month nuclear medicine–trained diagnostic radiology diplomate and the draft nuclear medicine–diagnostic radiology diplomate who will have at least 2 years of nuclear medicine training. Important issues have been raised at recent town hall–style events, but issues also ought to be raised at some juncture by the ABNM diplomates who have training in radiology, nuclear medicine, and internal medicine and should inform the board of the needs of ongoing and future diplomates. Indeed, there will be many changes and iterations over the next 12 months alone as to the future of training the practitioners of our art. It is with that notion intact that we summarize our thoughts. Change is inevitable, and training and the practice of medicine in general are at a point where value and quality are of the utmost importance. The determinant of value and quality will also change how we face the uncertainty of a major change in how future physicians are trained in nuclear medicine. As always, optimism and the opportunity that comes from embracing the challenge always win the day.

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**REPLY:** I thank Dr. Delbeke for allowing me to respond to this interesting letter to the editor from a dual-certified expert who also has a PhD degree, a trainee, a leader in the field of nuclear medicine, and a health care management consultant. All four perspectives on the future of nuclear medicine (and its independent board) are clearly worth considering.

*J.R. Osborne*, who is now the director of the Sloan Kettering nuclear medicine training program, concludes that his combined training was the best path to becoming the program director. He points to a gap in training that has widened with the emergence of PET/MRI, a gap that would best be bridged by a joint radiology–nuclear medicine program. He correctly points to one problem that such a construct creates, that is, the loss of board-certified internists, who would no longer be able undergo training in nuclear medicine.

*V. Beylertgil* is a dual-trained nuclear medicine specialist. He trained in radiology because the nuclear medicine job market was dismal and because he wanted to become a better hybrid imager. His qualifications likely make him a very desirable asset for clinical imaging services. A dual training program thus fits his career plans best.

*M.M. Graham* is a well-known leader in nuclear medicine who held numerous positions in which he attempted to shape the nuclear medicine curriculum. He argues that nuclear medicine is here to stay as evidenced by a plethora of emerging PET imaging probes as well as the advent of effective receptor-targeted radionuclide therapies (theranostics). He correctly points to training pathways that are already in place to integrate nuclear medicine into the radiology curriculum, something that, in his view, is insufficiently publicized. He proposes to identify exceptional talents through the radiology match, nurture them through close interactions while they undergo the required 3 years of radiology training, and then move them into the nuclear medicine program to train the next generation of academic leaders.

These three writers share the belief that a combined training program is desirable and useful to educate predominantly clinically oriented imaging experts. Dr. Graham notes that such a program already exists.

C. Samitt is a health care business executive who views the world of medicine as a retail-focused environment in which providers think as retailers do to create products that meet the needs of customers. This world view fits the marketing and business strategies of many hospitals but only partially the core mission of academic health centers. He concludes, first, that the discussion about optimal steps should focus on what is best for patients (here we all agree); second, that the presumption should be that the world will shift to value and those services that offer better outcomes, more accurate diagnostics, greater safety, and lower cost (we agree again); and third, that jointly developed solutions, through the breaking down of silos, are needed. All are well stated; however, sometimes quick retail solutions preclude substantial improvements in patient outcomes as often such substance cannot be provided by a simple market-driven approach. What marketing experts consider “value” may be less important to researchers. In fact, fundamental research exists to change patient care and outcomes by creating value that may well go far beyond short-term retail value.

A few comments about nuclear medicine seem to be warranted to reframe this discussion. The core of nuclear medicine’s mission is to improve patient outcomes. Nuclear medicine as an academic discipline gave birth to planar and SPECT imaging, PET and PET/CT imaging, thyroid cancer diagnostics and therapy, theranostics, and molecular imaging. It created the science of preclinical imaging and has contributed significantly to the successful merger of biology, diagnostics, and therapeutics. The successful translation of these discoveries into clinical care took decades in some instances. The quick retail approach would in all likelihood have already killed these advances before their conception. These inventions have made and can make a difference in the lives of current and future patients. If we really want to put the patients first as Dr. Samitt proposes, then we need to depart, at least in academia, from the retail concept as quickly as possible. Here of course comes the culture clash: what appears to be good service over the short term may turn out to be no more than marketing gimmicks in the long run. Conversely, what appears to be academic stubbornness or “siloism” may provide the greatest long-term benefits for patients.

There is no question that a joint training program between nuclear medicine and radiology would be of great benefit as correctly emphasized in the letter to the editor. However, none of this has anything to do with the ill-conceived dissolution of the American Board of Nuclear Medicine (ABNM) and its merger with radiology.

The proponents of this proposal need to address the following problems:

First, under the proposed dissolution of the ABNM, why would radiologists still need only 4 months of nuclear medicine training to conduct all nuclear medicine studies, including therapy? This grotesque regulation defies any logic.

Second, how and why would the dissolution of the ABNM be a requirement to implement the combined training program? Isn’t a simple collaboration possible? Why couldn’t the already existing combined training be managed by two independent boards? Why couldn’t the board examination be a single, two-part session?

Third, why is the currently existing combined training program as proposed by Dr. Graham not sufficient to meet the training needs?

And finally, how does the proposed combined program integrate internists who may be interested in training in molecular imaging?

These and many other questions should be answered before the ABNM decides its own dissolution—something that must be quite unique in the history of specialty and subspecialty boards.

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