

**G**reetings from the NMTCB! First, I am happy to announce that we have 2 additional nuclear medicine advanced associates (NMAAs), making the total number 6 individuals who hold the NMAA credentials. June 2011 was the first time that the NMAA exam was offered, and at that time there were 4 individuals who took the exam and passed. June of this year, at the SNMMI annual meeting, 2 additional individuals took the NMAA exam and were successful as well! The NMTCB is pleased to offer the NMAA exam for this new profession in nuclear medicine.

As of September 30, there are 24,043 active CNMTs, 716 active nuclear cardiology technologists (NCTs), and 781 active PET certificants, in addition to the 6 NMAAs. The numbers of PET and NCT certificants have increased by more than 10% in the past year. We are pleased to see the growing number of technologists seeking specialty certification and encourage individuals who may be interested in a specialty certification to check out our Web site ([www.nmtcb.org](http://www.nmtcb.org)) for more details.

We were saddened to see 4 long-time board members depart at the end of 2011. Yusuf Menda served many years as an SNM (now SNMMI) representative to the board. His knowledge in nuclear medicine and PET, along with his easy manner and thoughtful ideas, were invaluable to the board. Leonie Gordon served a somewhat shorter tenure on the board but was a driving force behind the successful completion and delivery of the NMAA exam. Chad Grant served 8 years on the board and was chair in 2009. He also chaired the finance committee for several years and helped set some of the fiscal policies that continue to keep the board financially viable. Leesa Ross also served on the board for 8 years. She served as secretary and also chaired the PET specialty exam committee, greatly contributing to the continued success of that examination.

As sad as it is to see long-time board members and friends leave, it is also exciting to welcome new members to the board. The new SNMMI representative to the board is Jon Baldwin from Birmingham, Alabama. Dr. Baldwin was also instrumental to the development and administration of the NMAA exam and is a very welcome addition to the board. Also joining the board this year is Bennett Greenspan. Dr. Greenspan is well known in the nuclear medicine community, having served on numerous boards, committees, and examination development groups. In addition to his nuclear medicine expertise, he offers a well-experienced view of the role various organizations play in the success of the field. Bryan Kerr recently joined the board as a technologist member. Bryan is certified in nuclear medicine technology, nuclear cardiology technology, and PET. He is also CT-certified and brings that technical expertise to the board as we seek to add more CT to examinations to reflect the integration of CT into SPECT and PET. Lastly, Amy

Brady joins us as a clinical instructor in nuclear medicine technology and offers many years of experience and expertise in the education of new technologists. We warmly welcome our new board members and look forward to many years of productive work for the nuclear medicine community.



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Prospective certificants are reminded that the NMTCB has announced that new requirements for becoming eligible to take the entry-level examination will take effect on January 1, 2016. New applicants will be required to be a graduate of a programmatically accredited nuclear medicine technology program. In the United States, the JRCNMT is currently the only programmatic accreditation organization. For a list of programs accredited by the JRCNMT, please see its Web site ([www.jrcnmt.org](http://www.jrcnmt.org)). Programs in Canada that are recognized by CAMRT also fulfill this programmatic accreditation requirement, as do programs in Australia that are authorized by the Australian government to offer a nuclear medicine degree or certificate. The board of directors is currently reviewing other programmatic accreditation mechanisms in the United States and abroad.

As a reminder, the eligibility requirement for the NCT exam will change in March 2013. After then, the NMTCB will no longer recognize a minimum of 2,000 hours of clinical nuclear medicine experience as meeting the requirement for eligibility to sit for the NCT exam. Instead, all applicants will be required to demonstrate a minimum of 700 hours of clinical experience performing nuclear cardiology, in addition to holding active nuclear medicine technology credentials.

The NMTCB completed comprehensive PET and NCT task analysis surveys earlier this year, and the results will be reviewed at the fall board meeting and announced shortly thereafter. A certificant survey was also completed this summer, and we hope to publish the results in early 2013. This comprehensive survey asked questions about education, job status, and salary and should provide a good look into the current state of the profession.

I am very proud to serve my last year with the NMTCB as chair of the board of directors. The NMTCB has made great strides during my service on the board, developing and administering new and groundbreaking examinations and serving and advancing our profession. Serving with the NMTCB has been a highlight of my career.

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## Answers to the Questions on Pages 291 and 292

### Question 1

**Answer = C**

- A. Although many hepatic hemangiomas are initially discovered on ultrasound as a hyperechoic mass with well-defined margins and posterior acoustic enhancement, this finding is neither sensitive nor specific to hemangiomas and additional imaging is always needed to make a diagnosis (3,4).
- B. Cavernous hemangiomas have a characteristic appearance on MRI, with a low signal compared with that of liver on T1-weighted images, and high intensity on T2-weighted images that increases as the time to echo increases, known as the “light bulb” sign (3,4). However, some of the rarer hepatic malignancies such as sarcomas, endocrine tumors, and cystadenocarcinomas can mimic this appearance, reducing specificity (6). MRI is useful for detecting smaller lesions and those adjacent to the vasculature (1); however, the advent of SPECT/CT has largely negated this advantage (6).
- C. The specificity for hemangiomas on  $^{99m}\text{Tc}$ -labeled RBC imaging approaches 100%, with reported false-positives being exceedingly rare (usually highly vascular angiosarcomas) (1). The sensitivity of a 2-head SPECT camera is comparable to MRI for hemangiomas larger than 1.5 cm (2,6). The use of SPECT/CT further increases sensitivity, especially for smaller lesions (as small as 0.5 cm) or those in less than ideal anatomic positions (6). Although MRI may be slightly more sensitive, it is less specific and far more costly. Hepatic angiograms have also been used to successfully image cavernous hemangiomas (3–5), with the highly specific appearance of pooled contrast within the suspected lesion. However, this procedure is invasive and carries the risk of infection, contrast reaction, acute renal failure, and thrombosis, among others.
- D. On dynamic contrast-enhanced CT, a hemangioma would typically show peripheral contrast enhancement during the rapid bolus dynamic phase, progressive opacification toward the center of the lesion, and a complete isodense fill-in by 30 min after contrast administration (3). Lesions that satisfy all the criteria have high specificity but a sensitivity of only 55% (3,6). This figure is even lower with multiple hemangiomas.

### Question 2

**Answer = B**

Cavernous hemangioma will appear as a well-circumscribed cold defect on a sulfur colloid scan; however, this finding is not specific, as hepatomas, hepatic cell adenomas, many malignant lesions, liver abscesses, and up to 30% of focal nodular hyperplasias (1,2) will also appear photopenic. Answer D describes the appearance of a hemangioma on a  $^{99m}\text{Tc}$ -RBC scan, whereas answer A can apply to most cases of focal nodular hyperplasia, cirrhosis with regenerating nodules, Budd-Chiari syndrome, and inferior vena cava obstruction (1,2).