A new NBME program takes on the challenge of assessing professionalism. Its champions hope that the Assessment of Professional Behaviors (APB) Program will change the way doctors learn.

Unlike most NBME examinations, the APB was designed from the outset to provide low-stakes, formative feedback. Participants receive no pass/fail score; they receive a profile that tells them how their peers, co-workers and supervisors perceive them. Developed primarily for residency programs, the APB may prove valuable for medical students, physicians, and other healthcare professionals as well.

The heart of the APB program is a survey that is completed several times a year by peers, nurses, faculty members, and other people who work with the trainee being rated. The survey asks how often the trainee engages in certain behaviors, such as listening and responding to others in a respectful manner and advocating for patients in the face of system barriers. The people completing the survey can also write comments about which behaviors the trainee performs well and which ones could use improvement.

Twice a year, each trainee receives a summary of the survey results. The trainee then sits down with a faculty member or other mentor to discuss the findings and put together a learning plan based on the results. The APB team provides training to ensure faculty members have the knowledge and skills to give feedback effectively. Residents have told us that they appreciate this chance to get some reinforcement on what they do well and to help them focus on areas that need improvement.

Latest Developments in the Comprehensive Review of the USMLE®

Content Changes

United States Medical Licensing Examination® Step 1 content is being modified to maximize the assessment of basic science concepts within a clinical context and to align the foundational science contained in Step 1 with changes in science assessment anticipated for Steps 2 and 3. In support of the recommendation to enhance assessment of science across the spectrum of USMLE examinations, small increases in the number of biostatistics and epidemiology items will appear in Step 3 beginning in 2011.

Item Formats

Several new item formats are also under development for computer-based testing, including new literature interpretation items that will assess the examinee's ability to interpret scientific literature and pharmaceutical advertisements. If supported by the results of pilot testing, these items should appear in the USMLE examination sequence in 2012. Work is also underway on a novel format that (continued on page 3)
2010 Annual Meeting of the NBME Membership

On March 25-26, 2010, members of the NBME gathered in Philadelphia for their 96th Annual Meeting. The meeting focused on development of a vision statement for the NBME as it nears the beginning of its second century of service to the public and the profession. This topic was introduced in the reports of the Chair and President and by the keynote speaker, Marc Roberts, PhD, Professor of Political Economy in the department of Global Health and Population in the Harvard School of Public Health.

Drs. Williams and Melnick outlined NBME achievements in the past year and focused on the initiation of planning for the NBME centennial in 2015. They noted that this Annual Meeting marks the beginning of casting a vision that will be the centerpiece of our centennial celebration, looking forward to the next century. Dr. Roberts reviewed American healthcare economics, with particular attention to the effect of health reform legislation partially approved earlier in the week of the Annual Meeting. He described the “small problems” that healthcare reform legislation might solve and identified “big problems” that would require coordinated efforts by the professions, institutions, and other stakeholders in healthcare. He indicated that these challenges might undergird the NBME’s vision for its future contributions to the health of the public.

The plenary presentations were followed by small group sessions on visioning. Members responded to a range of potential future scenarios by envisioning the roles the NBME might play in each. In plenary sessions following the small group discussions, members ranked the themes that emerged from the 16 draft visions developed by the small groups. This information will serve as a basis for Executive Board elaboration of a draft vision statement for consideration by the Membership at the 2011 Annual Meeting.

The NBME Membership participated in small group discussions on NBME governance and infrastructure. Following discussion in small groups, the Membership took the following actions in plenary session:

- Endorsed an NBME health system policy document in principle, containing NBME policy statements relevant to the health system reform debate, with the understanding that subsequent review by sister organizations might result in editing to increase clarity of language.
- Approved amendments to the NBME Bylaws creating a separately identified Audit Committee with responsibility for the audit-related functions performed until now by the Finance Committee and adding two additional elected at-large members of the Executive Board.

The Treasurer reported on 2009 financial results. Members discussed 2009 fiscal performance and the 2010 budget with the Treasurer and finance team in small groups. Members endorsed the 2010 budget in a subsequent plenary session. Also discussed were management actions taken to assure fiscal health of the NBME during the economic recession. Despite increasing program and service output, NBME has added no new staff positions in 2009, and no new position or staff compensation increases (salary, promotion, or other increases) are planned for 2010. Formal cost-control projects have realized several million dollars in savings in computer-based testing examination delivery, examination printing, committee costs, professional development, and staff travel. In addition to these topics, program-oriented small group discussions focused on Medical Education (including the Assessment of Professional Behaviors Program) and Student Services, USMLE (including the Comprehensive Review of USMLE) and CSEC, Services for Practicing Physicians and for Health Professions Organizations, International Collaborations, and research and development and Center for Innovation. Members endorsed various actions of the Executive Board during plenary sessions, including the following:

- Further development of the International Foundations of Medicine examination, preferably in collaboration with ECFMG and FAIMER, as an ongoing NBME global certification program and creation of a standing committee to guide this program.
- Authorization to offer the Assessment of Professional Behaviors multi-source feedback system to the graduate medical education community as a formative assessment tool as an operational program.
- Support for new Center for Innovation projects initiated in 2009: “Understanding My Practice: A Key Step for Physicians in Effective Quality Improvement and Lifelong Learning,” “The Role of Assessment in Assuring Patient Safety,” and “Promoting Observational Skills as a Foundation for Systems-Based Practice Assessment.”

The 2010 John P. Hubbard Award was presented to Maxine A. Papadakis, MD, for her work focusing on assessing the relationship between medical student and resident professional behavior and subsequent professionalism during practice (see page 3). Retiring Board members Drs. Sheldon Jacobson (posthumous), Patricia Beach, Lynne Kirk, and Richard Simons were presented with the Edith J. Levit Distinguished Service Award.
Maxine A. Papadakis, MD Receives the 2010 Hubbard Award

Maxine A. Papadakis, MD, is the recipient of the 2010 John P. Hubbard Award. The award is given to individuals who have made outstanding contributions to the pursuit of excellence in the field of evaluation in medicine. Lynn M. Cleary, MD, Chair of the 2010 Hubbard Award Committee, announced Dr. Papadakis’ selection at the Annual Meeting of the NBME Membership on March 25, 2010.

In presenting the award, Dr. Cleary stated: “Maxine Papadakis has made exceptional contributions to the assessment of professionalism in medicine. Her groundbreaking research is recognized nationally and internationally for what one of her supporters described as ‘opening up the black box of professionalism.’ Through conferral of the 2010 Hubbard Award, the National Board of Medical Examiners is privileged to highlight the pioneering, past work of Dr. Papadakis and to encourage continued progress in the future. Paraphrasing colleagues, ‘Her work is viewed by many as a breakthrough in assessment technology and theory, achieving hard evaluation methods and rigorous decisions for what some have called a soft competency. It has had and continues to have phenomenal impact on assessment practices around the world. It is an inspiration to the theory of assessment and leads us to a new era beyond the quantitative discourse, where human judgment, linkage of assessment to training programs and qualitative procedures in data-gathering and decision making have started to play a pivotal role. Dr. Papadakis has led the way to this new era.’

“Quoting colleagues, ‘Dr Papadakis’ research has provided evidence for the underlying intuitive notion that professionalism matters. Her papers on the relationship between early in-training professional behaviors and later functioning in practice are clearly outstanding. It is daring research, highly innovative, methodologically rigorous and ingenious. She has accessed the holy grail of assessment research by investigating the assessment of performance in training in relation to later performance in practice. Dr. Papadakis has made it clear that in order to meet our responsibilities to society, we must evaluate the professional behavior of students and residents.’ The results of her work have empowered medical educators and physicians to embrace the teaching and assessment of professionalism with more confidence. Colleagues who consult her as they work to implement policies and practice in their own institutions find her approachable, down-to-earth, and collaborative. She is articulate, highly committed, and inspiring.”

Dr. Papadakis is Professor of Medicine and Associate Dean for Student Affairs at University of California, San Francisco, School of Medicine. She received a Bachelor of Arts degree from Stanford University, is a graduate of the University of Cincinnati School of Medicine, completed a residency in internal medicine at Johns Hopkins Hospital, is certified by the American Board of Internal Medicine, holds geriatric medicine certification, and is a fellow of the American College of Physicians.

The NBME established the John P. Hubbard Award in 1983 in special tribute to the late John P. Hubbard, MD. Honoring Dr. Hubbard as a principal, guiding force of the NBME, this award acknowledges his creative and inspired leadership of the organization during his 25-year tenure as its chief executive. Dr. Papadakis deservedly joins the ranks of the distinguished individuals whom the NBME has honored over the years with this prestigious award.

Dr. Papadakis’ selection as the recipient followed a call for nominations published widely in the spring of 2009. The 2010 Hubbard Award Committee, chaired by Lynn M. Cleary, MD, included as members Antoinette F. Hood, MD, Michael Jodoin, PhD, Glenn Regehr, PhD, Dame Lesley Southgate, and Susan M. Spaulding.

Ongoing Change

A group of senior NBME staff has begun to consider potential changes to the structure of the USMLE exam sequence. If structural change is indicated, we hope to develop a draft plan by the end of 2010. Staff members of the ECFMG, FSMB, and NBME continue to meet quarterly and more often as indicated to review developments in the ongoing evolution of the USMLE program. Attentive to the needs of stakeholders, this group reviews developments in the USMLE program and targets announcements to the channels and groups who need this important information. The most current updates and the status of any changes will continue to be available at www.usmle.org/cru.
incubating it with the starch. From time to

time, retest the resulting chemical

changes. Place crystal of sugar on the

back and on the tip of tongue in succes-
sion and describe the sensory results;

repeat with a crystal of quinine on the tip

of the tongue.

From the Pharmacology, Materia

Medica, and Therapeutics Written

Exam:

• Describe the dominant action of strych-
nine on the central nervous system.

Discuss the use of strychnine as a heart
tonic.

• What is the essential element in dried thy-
roid gland? Describe its action when given
in therapeutic doses. Name three condi-
tions in which it is used as a therapeutic
agent.

From the Individual Laboratory
Tests in Pharmacology:

In this test, each candidate was required to
carry out one of the following: Six frog experi-
ments: Injection of unknown solutions: strych-
nine, caffeine, chloral. Four cat’s eye experi-
ments: Introduction of unknown solutions:
atropine; physostigmin. The candidate was
required to carry out the experiment on the
animal, record the results with his or her inter-
pretation, and write a complete a protocol as
possible.

From the Medicine Clinical
Laboratory Exam:

Clinical examination at Garfield Memorial
Hospital covering a period of two hours. To
each candidate were assigned three patients,
referred to as one long and two short cases.
The candidate was given one hour and twenty
minutes for the examination of the long case
and required to present a written clinical histo-
y, including the physical examination. He was
expected further to ask for the laboratory tests
required by the nature of the diseased condi-
tion, and to stand an oral examination on the
clinical history and diagnostic conclusions. The
two short cases were accorded 20 minutes
each, and the examination was confined to the
physical examination of a well-defined condi-
tion, as a typical heart lesion, aortic aneurysm,
exophthalmic goiter or enlarged liver.

From the Surgery Laboratory Exam
in Operative Surgery and Applied
Anatomy:

Candidates were given living models on whom
they were to point out:

1. Point out the different incisions used in
        exposing the gallbladder and discuss the
        advantages and disadvantages of each.
2. Determine the measurements point at
        which trephining would be done for hem-
        orrhage from the anterior branch of the
        middle meningeal artery.
3. Outline the surface measurements for
        locating the fissure of Rolando.
4. Outline the incisions used for amputation
        at the shoulder joint and discuss methods
to control hemorrhage.

From the Hygiene Written Exam:

• Discuss the hygiene of the mouth.
• Name the diseases which may be con-
veyed by meat.
• Describe a sanitary privy.

The First Exam

As we begin to prepare for NBME’s centennial
celebration in 2015, we are pleased to present
a series of historical pieces from our archives.
In this issue, we provide selected content from
the first examination of the NBME, adminis-
tered October 16-21, 1916.* The examination
consisted of written, oral, laboratory, and clini-
cal tests. The subjects of the exam and the rel-
ative value of each were: anatomy, 100; physi-
ology, 75; chemistry and physics, 75; pathology
and bacteriology, 100; material medica, phar-
macology and therapeutics, 75; medicine, 200;
surgery, 200; obstetrics and gynecology, 100;
ygiene and sanitation, 50; and medical jurisprudence, 25. A percentage of 75 was
required to pass. Falling below 65 in more than
two subjects, or below 50 in more than one
subject, constituted a failure.

Ten individuals appeared for this first examina-
tion, and five passed.

From the Physiology Laboratory
Exam:

• Demonstrate the “independent irritability”
of muscle in a frog. Set up the apparatus
and demonstrate Pflüger’s law of contrac-
tion on the nerve-muscle preparation of a
frog. Construct a table representing the
facts.
• Prepare a 1 percent starch mucilage; a 5
percent aqueous dextrin and a 0.1 per-
cent solution of dextrose and some of
your own saliva. With the reagents pro-
vided, test the solutions. Demonstrate the
reaction of the saliva and the result of

* The first examination of the National Board is reproduced in full in: Hubbard, JP, Levit, EJ. The National Board of Medical Examiners: The First Seventy Years. Philadelphia, PA: National Board of Medical Examiners; 1985.
Supporting Innovation in Medical Education Assessment: 
*The Edward J. Stemmler, MD Medical Education Research Fund of the NBME*

The Stemmler Fund’s annual “Call for Letters of Intent” (CFLOI) invites Letters of Intent from LCME- or AOA- accredited institutions. The goal of the Stemmler Fund is to provide support for research or development of innovative assessment approaches that will enhance the evaluation of those preparing to, or continuing to, practice medicine.

For the 2009-2010 application cycle, the NBME implemented an additional pre-application step to the Stemmler Fund process. Applicants were invited to submit brief Letters of Intent describing the proposed research. Following a round of review, a subset of applicants was invited to submit full proposals to be considered for funding. These proposals were then reviewed by peers, and three awardees were selected by the Stemmler Fund Steering Committee at its meeting in March (see 2009-2010 Stemmler Fund Grantees below). In general, the process changes have been well-received by applicants and will be continued in subsequent cycles. For full details please see the Call for Letters of Intent, which will be available in June 2010 at www.nbme.org/stemmler.

### 2009-2010 Stemmler Fund Grantees

**Beth Israel Deaconess Medical Center**
- Principal Investigator: Dr. Amy Ship
- Grant Amount / Duration: $150,000 / 2 years
- Project Title: Test of Accurate Perception of Patients’ Affect: Development and Validation (TAPPA)

**University of Illinois at Chicago**
- Principal Investigator: Dr. Rachel Yudkowsky
- Grant Amount / Duration: $149,581 / 2 years
- Project Title: The Impact of Clinically Discriminating Clinical Findings on the Validity of Performance Test Scores

**University of Washington**
- Principal Investigator: Dr. Florence Sheehan
- Grant Amount / Duration: $150,000 / 2 years
- Project Title: Objective Quantitative Competency Test for Diagnostic Ultrasound

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*International Association of Medical Regulatory Authorities*

**9th International Conference on Medical Regulation**

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