

GME ON-CALL

Volume 5, Issue 2 Winter 2014

MESSAGE FROM THE GME COMMITTEE CHAIRS

Alan D. Woolf, MD, MPH, Debra Boyer, MD

We continue to prepare for the advent of changes in how we measure the progress of trainees in their acquisition of the requisite knowledge, skills, and professionalism necessary for independent surgical and medical practice, termed 'milestones'. Implementing the MILESTONES PROJECT is an integral part of our strategic plan over the next 12-24 months as we move into the ACGME's Next Accreditation System (NAS). A recent workshop for training program directors and coordinators, led by **Dr. Dan Schumaker**, outlined in greater detail the processes to be implemented in fulfilling the mandates within the NAS. Read more about outcomes from the October workshop elsewhere in this newsletter.

Comings & Goings:

We also want to take this opportunity to welcome **Ms. Katherine 'Kacee' Evitts**, our new associate administrative coordinator. Kacee promises to be a tremendous asset to the Office of GME in a range of different activities so important to our daily operations, including managing the logistics of meetings and workshops, coordinating essential services for trainees, such as the condition of equipment and facilities in the Hospital's on-call rooms, developing her capability to review trainee work-related data entered into New Innovations, and the composition and production of this newsletter!

We are already planning the 2014 edition of the Graduate Medical Education Day at Boston Children's Hospital, to be held on April 30th. Dr. David Nichols, President and CEO of the American Board of Pediatrics, has kindly agreed to join us as visiting professor. Read more about him in the article elsewhere in this issue of GME On-Call. This is our 4th annual GME Day, and we are anticipating an exciting, day-long celebration of ongoing innovative research in medical education, meetings and workshops, grand rounds, and updates concerning ongoing progress in the hospital's training programs for physicians.

The **next two meetings of the GMEC** will be held on Monday, **January 13th** and **February 10th** from **5-6 pm** in the **Gamble Reading Room** in the house-staff library. All training program directors, associate directors, coordinators, and resident/fellow representatives are invited to attend. We hope to see you there!

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The ACGME & 'Scholarly Activities'

Alan Woolf, MD, MPH, Designated Institutional Official

The ACGME requires annual reporting out of the scholarly activities of both the core faculty and the trainees in each certified residency and clinical fellowship program. The definition of "core faculty" is critically important. It includes those faculty who:

- Provide clinical service and teaching and have documented qualifications to instruct and supervise.
- Participate in the program leadership in the evaluation of competency domains of its physician trainees, working closely with and supporting the program director, and assisting in developing and implementing evaluation systems and advising and teaching trainees.
- Devote at least 15 hours per week to medical education and administration.

A core standard of the ACGME is that faculty must establish and maintain an environment of inquiry and scholarship with an active research component. Those who meet the definition of 'core faculty' in a program must report out their scholarly activities, which include all of the following metrics:

- Number of abstracts, posters, and presentations made at international, national, or regional professional meetings
- Number of other presentations given (grand rounds, invited professorships), materials developed (e.g. computer based modules), or work presented in non-peer review publications
- Articles published, as identified by their Pub Med identification numbers (PMID) [includes publication or presentation of case reports or clinical series at local, regional, or national professional and scientific society meetings]
- Textbooks and chapters published
- Grants (PI, co-PI, or Site Director only) and other peer-reviewed funding
- Leadership roles: professional and scientific societies (e.g. governing boards or committees) or served as a reviewer or editorial board member of a peer-reviewed journal
- Leadership roles in organizing and teaching formal seminars, workshops, or conferences (does not include delivering a single lecture or grand rounds talk)

Another core standard of the ACGME is that faculty should encourage and support residents in scholarly activities. All trainees are also expected to report out annually the scholarly activities they pursue during their training experience. The list differs from that for faculty:

- Number of abstracts, posters, and presentations made at regional or national professional meetings
- Articles published, as identified by their Pub Med identification numbers (PMID)
- Textbooks, chapters, and reviews
- Lectures greater than 30 minutes duration (e.g. grand rounds, case presentations) at local, regional, or national conferences
- Documented work on a grant or research project (basic science or clinical outcomes)
- Education-related service on national committees

Those seeking more information about the scholarly activities requirements should consult the Common Program Requirements at the ACGME website: www.acgme.org

By the Numbers

The National Resident Matching Program (NRMP) by the Numbers

The total number of applicants matched was

57,960

in Academic Year 2013

The number of applicants rose

125%

between 1952 (the year NRMP began) and 2013

There were

29,171

resident position offered and

18,332

positions filled in 2013

The number of available positions increased by

70%

from 1982 to 2013 (18,300 to 26,392)

93.7%

of U.S. Medical School Seniors were matched to PGY1 programs in 2013

About the NRMP

- Private, non-for-profit
- 62 Year history
- Impartial venue for matching applicant's and programs' preferences for each other consistently

By the Numbers

BCH has

134

residents
and

381

Clinical Fellows
in Academic Year 2014

GME Office Holds Milestones Workshop

The GME Office sponsored the 9th edition of its semi-annuals retreats for residency and fellowship program directors and coordinators on October 30th in the Byers conference rooms of the Enders Building. More than 45 registrants attended the workshop. Drs. Dan Schumacher, associate director of the BCRP at Boston Medical Center and an instrumental participant in the National Pediatric Milestone Project, and Jennifer Kesselheim, medical educator for the Office of GME, facilitated the session. A pre-workshop questionnaire, completed the week before by more than a dozen participants, formed the basis of explaining the rationale behind these changes in the assessment of trainee's progress.

Participants learned about the paradigm shifting underway in the principles of assessment of the medical trainee. In the new system, assessment is focused on the level of a trainee's development (i.e. objective, observable, describable, functional milestones – "this is what I saw") and what next step is necessary for them to achieve the next level. The goal is to reach the independence of practice known as the entrustable professional activities (EPA). In particular there are 21 competencies that form the core of the pediatrics residency training experience, with an additional list available for pediatric subspecialty fellowship training.

Participants also discussed specifics of the clinical competency committees (CCC), which are expected to meet at least semi-annually to assess collectively each trainee's progress in their training experience. The goal is to match the narrative with the trainee, rather than review a checklist of Likert scales. The CCC are composed of 3-5 faculty (depending on program size) and should include the training program director, as well as the coordinator who would manage the logistics and materials of assessment.

Materials presented at the workshop are available at the GME Office website at: http://www.childrenshospital.org/clinician-resources/education-and-training/graduate-medical_education



Dr. Nichols Will Be Visiting Professor During GME Day 2014

Dr. David G. Nichols, President and CEO of the American Board of Pediatrics, has agreed to join us as a visiting professor during the **GME Day at Boston Children's Hospital on April 30, 2014**. Dr. Nichols actively promotes high quality health care for children by upholding the standards of certification in pediatrics, and by encouraging initiatives in quality improvement. He has been associated with the American Board of Pediatrics for over thirty years.



Dr. Nichols is a graduate of Yale University (BA 1973) and the Mount Sinai School of Medicine (MD 1977). From 1984 to 1987, Dr. Nichols was associate director of the residency education program in the Department of Anesthesiology and Critical Care Medicine at The Johns Hopkins University School of Medicine. He became director of the division of pediatric critical care and of the pediatric intensive care unit (PICU) in 1988 and later merged these programs with the department of pediatric anesthesiology. In that leadership role, he trained and mentored more than 50 postdoctoral fellows. Later, as the Mary Wallace Stanton Professor and the Vice Dean for Education at The Johns Hopkins University School of Medicine, he oversaw undergraduate, graduate, residency, post-doctoral and continuing medical education programs. During his tenure, he led a wide variety of significant initiatives to improve the school of medicine's innovative use of technology in education; update the medical school's curriculum; improve faculty development; restructure graduate medical education; and oversee the design of a new \$50 million medical education building.

Dr. Nichols became a full professor of anesthesiology/critical care medicine and pediatrics in 1998 and a professor of education in 2005. He has authored more than 100 journal articles, chapters and books, including Rogers' *Textbook of Pediatric Intensive Care* and *Critical Heart Disease in Infants and Children* – two leading textbooks in the field. We look forward to welcoming him as visiting professor at Boston Children's Hospital in April.

Office of GME Sponsors "Strategies for Academic Success" Course for a Second Year

In conjunction with the Boston Combined Residency Program (BCRP), the GME Office will again sponsor hospital-wide training activities for residents and fellows during the 2013-14 academic year. The course is entitled **Strategies for Academic Success (SAS)**. This program was piloted in 2012 to offer training in a variety of areas of medical education that cut across all of the residencies and fellowships in their relevance. **Drs. Jennifer Kesselheim, Ted Sectish, Cynthia Stein, and Debra Boyer** have combined their experiences to develop curricular offerings that are of critical importance to all residents and fellows, regardless of the focus of their specialty. Four sessions for AY13-14 have been planned:

AAMC by the Numbers

The total enrollment in U.S. Medical Schools for 2012 was

82,067

of that number,

53%

of students were male and

47%

were female

Medical School enrollment increased by

16.6%

Since 2011

The number of residents entering the ACGME Pipeline grew by

7%

between 2002 and 2010

NRMP by the numbers

3172

Fellowship Programs in
Academic Year 2014

48

Specialties

7245

Offered fellowship positions

6551

Fellowship positions filled

83%

Of programs filled all of their
positions

75.7%

of fellows
Obtained a position

42%

Matched U.S. Allopathic Medical
School Graduates in 2013

- Session 1: Career Development – December 10, 2013
Promotion, applications for Grants and key career development milestones
- Session 2: Teaching & Leadership – January 27, 2014
Teaching, Giving Effective Feedback, Academic Leadership
- Session 3: Ethics, Professionalism, & Humanism – March 13, 2014
Case-based discussions to review principles of research ethics and to allow for reflection on humanism and professionalism
- Session 4: Academic Productivity – May 9, 2014
Giving scientific presentations, publishing, principles of EBM 10.5

HMS Unveils New Degree Program: MMSc in Medical Education

New program to train research scholars to study medical education

Harvard Medical School has approved a new Master of Medical Sciences (MMSc) in medical education, a unique two-year master's program designed to provide rigorous research training in the field of medical education. While many medical schools in the U.S. and abroad offer one-year master's degrees in medical education, Harvard's new program will be a two-year Master of Medical Sciences degree that will include a full year of research leading to a publishable master's thesis. The MMSc in medical education will be directed by **Dr. Jennifer Kesselheim**, a pediatric hematologist-oncologist at Dana-Farber Cancer Institute and Boston Children's Hospital who also serves as the medical educator for the Office of GME at Boston Children's.

The concept and design of the new MMSc in medical education program was developed by a faculty committee over the past year and a half, with representation on the committee from across HMS and the HMS-affiliated institutions as well as from the Harvard Graduate School of Education, the Harvard Macy Institute, and the MGH Institute for Health Professions. The plan is to recruit the first cohort of students over the next several months for matriculation in the master's program in the fall of 2014. In Year 1 of the program, students will engage in formal course work led by faculty from the HMS Academy. They will also participate in courses at the Harvard Graduate School of Education and the Harvard Macy Institute and will choose elective courses available throughout the Harvard community. Mentored research will commence halfway through the first year and will continue throughout Year 2. Dr. Edward Hundert, Director of the Center for Teaching and Learning and co-chair of the faculty committee, noted that "even from word of mouth that HMS is launching this new degree program, we have been getting inquiries from potential students from around the world, as well as from a number of residents and fellows whose training programs have a two year research requirement. For someone interested in medical education as a major part of their career, this master's degree would be a perfect way to complete that GME research requirement."

Those interested in pursuing the new MMSc in Medical Education degree should contact MMSC_med_ed@hms.harvard.edu for information. Program directors or trainees with questions can also contact Dr. Kesselheim at jennifer.kesselheim@childrens.harvard.edu.

The program is accepting applications now!

GME Spotlight- Dr. Vijay Sankaran

Katherine Evitts

[Editor's Note: in this new column, Katherine Evitts, our staffer in the Office of GME, highlights the work of a resident, a clinical fellow, or a member of the teaching faculty here at Boston Children's Hospital by interviewing them for the newsletter.]

While a first year Harvard medical student shadowing Boston Children's Hospital faculty member, Dr. Ellis Neufeld, Dr. Vijay Sankaran met a patient close to his own age at the time who suffered from sickle cell disease. The patient had a crisis almost weekly and his hips and joints had even deteriorated as a result of the disease, causing him to walk with a limp. The patient had started hydroxyurea therapy seven years earlier and had subsequently been largely symptom free. This treatment, which was initially developed by Drs. Orah Platt and David Nathan at BCH, stimulates the production of fetal hemoglobin. Hydroxyurea is still currently the only FDA-approved medication for sickle cell disease. Dr. Sankaran may not have fully realized the impact of this patient on his own thinking at the time; however, this would prove to be the seminal moment that ignited the path of his career and research into fetal hemoglobin regulation. I decided to interview him to find out more about his academic choices. Although I met with Dr. Sankaran on a gloomy and rainy November morning in his office, our conversation was in itself very uplifting. After traversing the winding corridors leading to his secluded office- most unquestionably the office of a very driven academic, I was met with a genial smile, an enthusiastic glow in his eyes, and a firm handshake.

Vijay, you're an Assistant Professor of Pediatrics in the Division of Hematology/Oncology at BCH and an Associate Member at the Broad Institute of MIT and Harvard after having completed your residency here. What was your path before coming to BCH?

"Being here is home for me. Boston has actually always been my home, I completed my PhD and MD at Harvard Medical School and then my residency and fellowship here at Boston Children's Hospital," he pauses for emphasis and a smile, "and now I'm an Assistant Professor. I've been at Boston Children's Hospital for over a decade now."

You identified a link between the BCL11A loci and elevated HbF levels (fetal hemoglobin), which is known to be an inherited modifier contributing to the severity of sickle cell disease. What possible implications does this discovery have for the treatment of SCD moving forward?

"This work has some exciting implications for therapy of sickle cell disease and thalassemia. Initially, we were focused on identifying a 'parts list' of factors that are important to regulate the fetal hemoglobin levels, which provides us with important targets to therapeutically intervene in sickle cell disease and thalassemia. This includes BCL11A and other factors like MYB. We now have a lot of work to understand how all these parts work together and we have been focused on using human genetics as a way to gain insight into the mechanisms involved in fetal hemoglobin regulation. In addition, we are using these human genetic approaches to study other red blood cell disorders and attempt to identify ways that we can treat these disorders as well- Diamond-Blackfan anemia, for one. "

By the Numbers

5%

Matched Osteopathic Medical School Graduates in 2013

96.2%

Pediatric Emergency Medicine positions Filled by Allopathic graduates

93.9%

Pediatric Hematology/Oncology positions Filled by Allopathic graduates

84%

Child and Adolescent Psychiatry positions Filled by Allopathic graduates

100%

Pediatric Surgery positions Filled by Allopathic graduates

Meetings & Events

GME Committee

Monday, January
13th, 2014

5:00 PM to 6:00 PM
Gamble Reading
Room, Hospital
Library

**Strategies
for Academic
Success**

*For Registered
Fellows Only*

Monday, January
27th, 2014

1:00 PM to 4:00 PM

GME Day

Wednesday, April
30th, 2014

**ACGME Annual
Educational
Meeting**

National Harbor,
Maryland
February 27- March 2

You seem a little bit in awe of the legacy of others who preceded you in this field?

"Louis Diamond and Kenneth Blackfan, that's the same Blackfan that this road right below is named after- they were physicians right here at Boston Children's Hospital who were among the first to describe the disease. In Diamond-Blackfan anemia the earliest cells that are precursors to the red blood cells are found in inadequate amounts in the bone marrow while all other blood cells are fine. The mutations within ribosomal proteins are what give rise to this particular disease. We've found mutations in some patients in another factor, GATA-1, that acts within the nucleus to tell a cell- 'Look, become a red blood cell!' We've also found that this factor is connected to the cases of Diamond-Blackfan anemia due to ribosomal protein mutations. Now, we have a specific therapeutic target, GATA-1, that we can go after in this disease."

This work must be very gratifying to you?

He stops and smiles, "This is really exciting for us. It's satisfying to know that our research is directly impacting patients. Hopefully one day, if we can develop more effective therapies, my patients will only have to visit me socially."

Tell us about your work at Camp Sunshine.

"I've spent a good bit of time at Camp Sunshine in Maine. Camp Sunshine is a year round program that is free of charge to all families with children with life-threatening illnesses. [Editor's Note: www.campsunshine.org.] It has given me a profound understanding not only of what the patients endure but also what happens to their families, as well."

What called you into the field of Hematology/Oncology?

"Well, I wanted to be a scientist with some medical knowledge to help me focus on solving interesting problems. I was actually a Physics/Chemistry major in my undergrad, so I was a bit of an atypical pre-med student. When I was a first year medical student I thought I would be a scientist with some medical training, but then I met Ellis Neufeld, (the current Director of Boston Hemophilia Center and Associate Chief of Hematology/Oncology at BCH), and my career was completely flipped on its head. Ellis is an amazing clinician. Before that, I had this vision of having to choose a path that either meant being a Rockwellian physician or a scientist stuck in a lab, but I realized that one can have both in Hem/Onc. In Hematology/Oncology, you get to solve molecular problems while caring for patients that inspire those problems."



You chose to stay at BCH following your residency when I'm sure other institutions were knocking on your door. Why?

"[There] is no other institution that I know of that one can go through a single day and be around so many amazing clinicians and scientists. On the clinical side, I have never met a group of more dedicated MDs, Nurses, Nurse Practitioners, Clinical Staff Members, Child Life Volunteers, and others. That's combined with a world-class research institution. Not only have I grown up here, both as a clinician and scientist, but I've had mentors that care about me as a person- Drs. David Nathan, Sam Lux, Stu Orkin, Ellis Neufeld, Colin Sieff, David Williams to name only a few- it would be hard for me to go anywhere else."

You are very driven and passionate about your field- that is certain. What are you passionate about outside of your career?

"Well, I have a deep love for the outdoors and for running. Living in Jamaica Plain, I have access to the Arnold Arboretum. The greatest part about Boston is that it's so easy to get outdoors in beautiful places like Maine, New Hampshire, or Vermont."

Boston Children's Hospital Creates Revolutionary Patient Hand-Off System

As recognized in *The Boston Globe* and *Science Daily*, BCH has instituted a proactive and revolutionary method of reducing medical errors through transitions of care, or, hand-offs called **IPass**. Spearheaded by Amy Starmer, MD, MPH, and Christopher Landrigan, MD, MPH, the initiative aimed to increase communication among team members and discussion in a quiet space, as opposed to a harried hand-off in the hallway. A computer-based system was also implemented in one unit allowing physicians to concisely create an agenda for incoming shifts, thus, reducing the chance for a lapse in patient care. The process actually increased the amount of time physicians spent bedside by enabling the information to be right at hand. Post-implementation, medical errors decreased from 33.8 per 100 admissions to 18.3 per 100 admissions and preventable adverse events decreased from 3.3 out of 100 admissions to 1.5.

The **IPass** system satisfies ACGME requirements for transition of care and is expected to serve as an exemplary model for hospitals nationwide.

Questions? Contact the GME Office

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617-355-3396

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617-355-4372

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857-218-5195

Pediatric Academic Societies (PAS)

Vancouver, British Columbia
May 3 – May 6

ACGME Workshops

Leadership Skills Training Programs for Chief Residents

Philadelphia, PA March 19-21

Philadelphia, PA March 25-28

Jacksonville, FL
April 15-17

Jacksonville, FL
April 23-26

Chicago, IL
May 7-9

Chicago, IL
May 13-16

Denver, CO
May 20-23

Denver, CO
May 28-30

Redondo Beach, CA June 3-6

Redondo Beach, CA June 10-12