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At Harvard Medical School, academic year 2016 began by welcoming the first class of students to enter Pathways, our new curriculum. While the entirety of the curriculum is still underdevelopment, the Academy focused its attention on preparing faculty in the pre-clerkship and clerkship phases of study for new pedagogical approaches, which form the backbone of Pathways. Working closely with course directors and student education representatives from the first year class, the Academy staff, often in concert with members of the interest groups, created workshops and met with individuals to help them design resources for the flipped classrooms and honed mini-cases and other teaching materials to facilitate Case-Based Collaborative Learning (CBCL). As with any new curriculum, we didn’t get it all perfect in the first year, but the energy, enthusiasm, and collegiality of all faculty members engaged in this endeavor were amazing to see.

Medical Education Day, held in October, focused on discussions about and preparations for extending the philosophy of CBCL into the clinical environment; a record number of faculty members attended the session. Drs. Meredith Atkins and Andrew Lichtman served ably as co-chairs for the program and coordinated an outstanding group of faculty in offering workshops that addressed topics from professionalism to integrating basic and clinical science at the bedside to combating the negative aspects of the hidden curriculum. Dr. Thomas Viggiano, Associate Dean for Faculty Affairs at Mayo Clinic, offered a keynote address on “Optimizing Clinical Education: Forming Critical Thinkers in a Culture of Caring,” and participated in our discussions throughout the day. Medical Education Research was again highlighted with nearly 100 abstracts presented on a wide range of topics from across the HMS system. The excitement associated with the viewing period for the posters is emblematic of the increasing rigor with which our faculty are engaging in evidence-based education and foretells wonderful things to come for teaching and learning at both the UME and GME levels in the years to come.

Our annual Symposium on Science of Learning tackled the challenging topic of resilience. As concerns grow about the reports of increasing numbers of students and residents suffering from depression and burnout despite the implementation of restrictions on duty hours and the creation of wellness and support programs, we felt it was important to engage in discussions of ways in which we can enhance the abilities of our students and trainees to withstand the challenges associated with medical education. Dr. Daniel Gilbert, from the Harvard University Department of Psychology, and Dr. Denis Charney, Dean of the Icahn School of Medicine at Mount Sinai, provided a range of insights about our ability to predict whether future events will make us happy and the key elements associated with resilience. Nearly 200 faculty members attended the session and we look forward to continuing discussions about this issue.

Student interest in medical education theory and practice and the activities of the Academy continues to grow. As part of the new curriculum, we began a pilot program to offer students an elective course during which they studied foundational concepts in learning theory and then participated in teaching in Homeostasis 1 in the pre-clerkship curriculum. We plan to expand this program in the next academic year. Our interest groups remain the backbone of the Academy. After five years since they began, some of the founding co-chairs for several interest groups relinquished their leadership roles and new co-chairs were named. We thank all of the original co-chairs for their outstanding contributions to the growth of the
Academy and the many symposia and workshops that they supported. We look forward with great excitement to working with the new co-chairs who bring fresh insights and energy to the work of the interest groups.

As always, I must give thanks to the outstanding work and support of my colleagues and staff in the Academy. Barbara Cockrill has shown tremendous creativity and flexibility in designing faculty development programs that fit into the busy schedules of all of our teachers. She continues to assist many faculty as they engage with new teaching methods and strive to excel with techniques outside their comfort zone. David Hirsh provides a unique spin on our Medical Education Grand Rounds seeking speakers who represent a wide range of medical education expertise, and never fails to remind us of the importance of recognizing our humanity (both in ourselves and our patients). Amy Sullivan continues to support both faculty and students as they plan, implement, and analyze education research projects, and continues to co-chair our interest group focused on communication, compassion and empathy. She has also done an extraordinary job this year as co-chair for the Executive Committee of the Academies Collaborative, a national organization that is now formally a part of the Association of American Medical Colleges. Katheryne Jackson and Gilianne Jawahir provide us with tremendous support in our day-to-day operations and bring great warmth and energy to our work. Finally, Lisa Frontado manages our complex schedule of programs and all the moving parts with great skill and attention. Bringing her own insights and knowledge to the interest groups, she helps raise the bar in all of our discussions.

As director of the HMS Academy, I have the great fortune to interact with outstanding faculty and colleagues on a daily basis. I am grateful to all who have contributed to its success this year.

Best regards,
Richard M. Schwartzstein, M.D.
Director of the Academy at Harvard Medical School Ellen and Melvin Gordon Professor of Medical Education
The Academy was established in 2001 to advance the education of physicians and scientists throughout the Harvard Medical School community by (1) creating and supporting a community of leaders in education and a culture of excellence in teaching and learning, (2) fostering the careers of educators in medicine and science, (3) providing programming to improve the skills of teachers, (4) stimulating and supporting the creation and implementation of innovative approaches to learning and assessment, and (5) supporting educational research and scholarship in medical and graduate education.

In 2006, the Academy’s Center for Teaching and Learning at Harvard Medical School was established to create, implement and evaluate educational faculty development programs, assess faculty teaching and support faculty members’ educational endeavors as a recognized element in academic achievement. The Academy Center for Teaching and Learning is committed to implementing educational programs for teaching faculty that enhance student learning and ultimately provide for the best care of patients. The Center is committed to the educational development of HMS quad-based faculty as well as faculty and residents at HMS affiliated institutions who are involved in core and elective courses that are part of the HMS curriculum. All individuals within the HMS community who teach in classroom or clinical settings are invited to participate in Center activities.

In addition to sustaining and building upon the work of the Center for Teaching and Learning, the professional development arm of The Academy, we work closely with the Graduate programs, the Program in Medical Education at HMS, and with the evolving educational centers at many of our hospitals. Among our goals, we support innovation in pedagogical methods and curriculum, and promote research that focuses on teaching, learning, and assessment at the undergraduate and graduate medical education levels and in the science education of our graduate students. The formation of member “Interest Groups” has greatly expanded the opportunities for involvement by faculty in the planning of our activities and programs.
MAJOR ACADEMY PROGRAMS
MAJOR ACADEMY PROGRAMS

Medical Education Day

Annual Symposium on the Science of Learning

Academy Interest Group Symposia
Taking the New Curriculum to the Clinical Realm

Tuesday, October 27, 2015
Co-chairs: Katharyn Meredith Atkins, M.D. and Andrew H. Lichtman, M.D., Ph.D.

OVERVIEW: On August 3, 2015, the Pathways curriculum was unveiled for our new first year class at Harvard Medical School. Courses have been redesigned and faculty have been busy learning and practicing new interactive teaching formats, developing exciting visual resource materials, and pushing the boundaries of their skills as educators. But there was so much to be done as students embarked on early clinical experiences and we worked to ensure that the new emphasis on clinical reasoning/critical thinking and problem solving, along with seamless integration of empathy, science, and clinical medicine were successful and continue on to our GME programs. In the end, any curriculum is only as good as the faculty who teach it.

Medical Education Day 2015 sought to take the educational philosophy embedded in Pathways to the clinical realm and consider its implications for residency and fellowship training. In addition to a keynote address by Dr. Thomas Viggiano, Associate Dean for Faculty Affairs at Mayo Medical School, there were two sets of concurrent workshops, which had been designed to provide us with key skills to enhance our work as teachers in this changing education environment.

KEYNOTE:

Optimizing Clinical Education: Forming Critical Thinkers in a Culture of Caring
Thomas R. Viggiano, M.D., Associate Dean for Faculty Affairs, Mayo Medical School

WORKSHOPS:

Professionalism: It is not just about you
Hope Ricciotti M.D., Jo Shapiro, M.D.

There is a growing understanding of the relationship between professionalism, our institutional culture - how we interact with each other every day - and the quality of patient care. Culture is built upon small acts, both positive and negative. Culture is hugely impactful and yet, not explicit; that is, there are no policies or handbooks that define the culture of an institution. If we are to enhance the culture of respect and professionalism, we must do so by first examining both what facilitates as well as what undermines highly professional behavior, and be intentional in our efforts to change culture. In this session, using role play, didactics and facilitated group discussion, we examined the factors contributing to improved culture and professionalism, and discussed how to build an institutional program to support professional interactions throughout the institution, holding both the individual as well as the institution accountable for the culture we create.

Learning Objectives: At the end of the session, participants were able to:
- Describe the role of institutional culture, its importance and how it affects attitudes, behaviors, processes and outcomes of care.
- Recognize the connection between institutional culture and professionalism.
- Identify the enhancers and barriers to resolving conflict among health care team members.
- Apply the skill of using frame-based feedback to relationship building on all levels.
Integrating Basic Science at the Bedside

Bernard Chang, M.D., MMSc and Robert Stanton, M.D.

The importance of basic science integration at the bedside in the ongoing education of medical students and housestaff is likely not in dispute among HMS faculty members, but there are a number of challenges in achieving this integration, including the availability of qualified teachers and the hospital-based pressures surrounding clinical efficiency and teaching resources. In addition, the term “basic science” encompasses a large range of disciplines, some of which integrate with clinical medicine more naturally than others.

In this workshop, participants participated initially in a brainstorming session, led by the workshop leaders, focusing on the aspects of basic science that are most appropriate to integrate in the clinical realm, and the faculty members who are best positioned to achieve this integration. Participants were then divided into small groups to design specific types of teaching sessions (e.g., didactic conferences, basic science walk rounds, student- or resident-led peer teaching, outpatient clinic lunch sessions, etc.) that would be most appropriate for basic science integration at the bedside. Groups then reported back to the entire workshop on their specific suggestions, and the session concluded with a summary by the workshop leaders, who developed an itemized list of concrete recommendations.

Learning Objectives: At the end of the session, participants were able to:

• Analyze the value of integrating basic science education into the clinical realm but also the limitations and obstacles in being able to do this successfully.
• Define what is meant by “basic science” when it comes to bedside integration and which faculty members are best able to participate in this integration.
• Develop three concrete suggestions for specific types of teaching sessions that would be most appropriate for the integration of basic science at the bedside.
The Art of Asking Questions: This is not your average quiz show
Richard Schwartzstein, M.D. and Jonathan Hausmann, M.D.

The proper use of questions, whether in the classroom or at the bedside, can open a window to the learner’s thinking and can promote new insights into the way to approach a problem. In addition, by stimulating the student or resident to provide her own answer, the resulting learning is deeper and more enduring. On the other hand, inappropriate use of questions may stifle curiosity and inhibit interactive learning opportunities. In this workshop, we explored the uses (and abuses) of questions as a tool to foster integration of knowledge, higher order thinking, and self-directed learning.

Learning Objectives: At the end of the session, participants were able to:

- Describe the use of questions to enhance critical thinking.
- Employ questions to assist students in understanding their knowledge gaps and their thinking processes.
- Create a safe learning environment to foster the use of questions.
- Assist students in creating their own questions to reinforce learning.

Self-Directed Learning: Moving Beyond Directed Self Learning
Andrew Lichtman, M.D., Ph.D. and Eli Miloslavsky, M.D.

It is clearly necessary for physicians to continuously engage in learning activities in order to keep pace with advances in medical science and practice and therefore to maintain their expertise and competence. In order to engage in effective career-long learning, a variety of behaviors are required, described as self-directed (or self-regulated) learning. However, studies suggest that physicians are poorly prepared to engage in self-directed learning after medical school. In year 1 of the Pathways curriculum, we are emphasizing active learning and critical thinking pedagogies, which we predict will help in the development of self-directed learning. What more do we need to do to ensure that our students will become effective self-directed learners beyond the school environment?
In this workshop, participants first formulated a self-directed learning behavior “competency” list. Then, using specific examples developed a framework for thinking about how the learning environment, educational activities, learning supports and assessment strategies can promote those behaviors through medical school and residency training. Finally, we applied our ideas to the Pathways curriculum and considered implications for GME training, asking how and when we incorporate activities that promote self-directed learning skills, and assessment of those skills. Embedded in our discussion, we addressed some of the following questions: How do activities such as directed self-learning, question framing, informed self-assessment, and guided self-audit feedback /assessment promote self-directed learning behaviors? Can self-directed learning skills be taught? How do current assessment approaches influence the development of self-directed learning skills?

Learning Objectives: At the end of the session, participants were able to:

• Recognize the fundamental skills and behaviors required to engage in career-long self-directed learning.
• Identify aspects of learning activities and the educational environment that can influence the development of self-directed learning skills and behaviors.
• Propose specific ways to promote self-directed learning skills and behaviors at different stages of the Pathways curriculum.

Giving voice to The “Silent” Curriculum: Race & Ethnic Relations, Cultural Sensitivity, and Explicit Reflection in Medical Education

Faculty Planning Committee: Hidden Curriculum Interest Group

The healthcare community is working to promote a more multiculturally aware and tolerant system for patients and their families, as well as for our staff, faculty and students. But in our era of patient-centered care, what do you do when a clinic patient asks to see a ‘white’ doctor? Are you aware when the ‘silent curriculum’ shows up in your teaching? Under the stress and pressure of patient care, have we ever made insensitive jokes to blow off steam -- or laughed at an attending’s insensitive joke? Prejudice and racial discrimination are still critical issues for all Americans, as has been painfully apparent in recent events taking place in Ferguson Missouri, New York City, Baltimore Maryland, and elsewhere. As educators we must confront how we will address in everyday experiences those attitudes and behaviors displaying evidence of underlying racial biases. The hard work of transforming unconscious biases is possible by increasing awareness of and examining our own attitudes about race and ethnicity.

In this case-based workshop, participants examined the challenges posed by implicit biases, through interactive exercises. We explored narratives from our own experiences. In exploring implicit biases in medical education through role modeling and dialogue, we wanted to set the tone for a model community, one which makes such challenges explicit, with a commitment to shared reflection and mindful choices within our community of learners and educators.
Learning Objectives: At the end of the session, participants were able to:

- Explore through case discussion and experiential exercise how racial biases may manifest in the Silent Curriculum and how implicit but unintended messages may be internalized by learners.
- Describe strategies to make such issues explicit and a focus for shared reflection with learners.
- Link issues of hidden bias to healthcare disparities.

Building Resilience in Learners at All Levels: Structural and Individual Interventions
Eileen Reynolds, M.D. and Fidencio Saldana, M.D., MPH

Burnout levels are high in students, residents, and faculty. Contributing factors include intensive workload, lack of control over schedule, perceived unfairness about workload and evaluations, and potential for conflicts between one’s values and required work. The new curriculum hopes to increase student preparation, class participation and individualized feedback, which may increase stress and may make students reluctant to stretch intellectually into unknown territory. In this workshop, we reviewed what (little) is known about resilience and combating burnout in medical students and residents. We thought together about potential pitfalls in our environments and interventions at the structural and individual levels that can help learners with resilience.

Learning Objectives: At the end of the session, participants were able to:

- Describe the literature on burnout and resilience in medicine with attention to students and residents.
- Identify ways in which the new curriculum might add to stress and burnout.
- Outline structural and individual interventions that HMS, the hospitals, and course directors might implement to foster resilience in learners.
Innovation - GME

A Compiling Analytic Software Program for the ACGME Milestones is an Efficient, Flexible and Timely Monitor of Resident Performance and Progress
D.K. Urion, M.D., FAAN; Joseph Viscomi

Innovation - UME

Impact of the Resident-as-Teacher Video Series in Preparing Students to be Resident Teachers
Bri Anne McKeon, M.D.; Celeste Royce, M.D.; L. Renata Vicari; Miriam Haviland MSPH; Lori Newman, Ed.M.; Hope A. Ricciotti, M.D.

Research - GME

A Cadaveric Procedural Anatomy Course Enhances Operative Confidence and Competence
G. Sharma, M.D.; Mario A. Aycart, M.D.; Peter A. Najjar, M.D.; Trudy van Houten, Ph.D.; Douglas S. Smink, M.D., MPH; Reza Askari, M.D.; Jonathan D. Gates, M.D., MBA

Research - UME

Assessing item quality in open-book online readiness assessment exercises using student feedback and item response time

Research - STUDENT

Committed to Leadership: A Landscape Analysis of Leadership Training in the Medical School Curriculum
D. Wohler, B.S.
Bouncing Back: The Science of Resiliency

Thursday, April 28, 2016 9:00 AM -12:00 PM

Life is full of challenges. We all experience successes and failures. Unfortunately, everyone is touched at some time by a death in their family, an unexpected accident, a disappointment. Some people, when faced with adverse circumstances are able to assess the situation, see the "silver lining" in the clouds on the horizon and move into the future with hope; others are mired in the seeming tragedy of the moment. What is the difference between these individuals? Are there predictors of how a person will react to the inevitable difficulties of life? Within medicine today, we hear increasingly about burnout and depression among our students, trainees and practicing physicians. There have been reports of increasing numbers of suicides. All of this has occurred despite the implementation of duty hours and more attention to safe learning environments. In this context, the 2016 Academy Symposium on the Science of Learning will focus on the way the brain responds to stress and the impact of research findings on our understanding of the behavioral responses which enhance or degrade our ability to deal with stress. We will examine the development of resilience in the face of failure or adversity while exploring ways in which faculty can support students to aspire to high achievement.

Prospection 1.0

Daniel Gilbert, Ph.D., Edgar Pierce Professor of Psychology, Department of Psychology, Harvard University

Most animals achieve pleasure and avoid pain by learning from their experience in the world. Human beings have the unique ability to mentally simulate future events and thereby learn from experiences without actually having them. This ability is powerful and important, but evolutionarily speaking, it is still in beta testing. Research shows that when people simulate future events, they make a series of systematic errors that lead them to mispredict how they will feel when those events happen.

Resilience: The Science of Mastering Life’s Greatest Challenges

Dennis S. Charney, M.D., Anne and Joel Ehrenkranz Dean of the Icahn School of Medicine at Mount Sinai, President for Academic Affairs for the Mount Sinai Health System

Many of us will be struck by one or more major traumas sometime in our lives. Perhaps you have been a victim of sexual abuse, domestic violence, or assault. Perhaps, you were involved in a serious car accident. Perhaps, you are a combat veteran. Or maybe you are among the millions who have suffered a debilitating disease, lost a loved one, or lost a job. Based upon work discussed in his book, Resilience: The Science of Mastering Life’s Greatest Challenges, Dr. Charney presented how new research into the psychological, biological and social impact of trauma can help us manage our own stressors and tragedies.

Drawing on two decades of work with trauma survivors, Dr. Charney along with his co-author, Dr. Steven Southwick, have woven the latest scientific findings together with extraordinary stories of people who have overcome seemingly impossible situations. The question that is frequently asked is “How did you do it?” Dr. Charney presented the ten “resilience factors” that they have found survivors use to cope, and how individuals can learn to become stronger and more resilient. This can provide a vital roadmap for overcoming and potentially growing from the adversities we all face at some point in our lives.
ACADEMY INTEREST GROUP SYMPOSIA

Each Academy Interest Group within the Academy at Harvard Medical School is charged with designing and implementing a three hour symposium on a major theme approximately every three years. These symposia typically provide other faculty with an introduction to a topic and a few discrete skills, which they can apply in their own teaching.

Teaching and Learning from Consultation
Thursday, February 25, 2016

Co-Chairs: Eli Miloslavsky, M.D., Instructor in Medicine, Massachusetts General Hospital
Susan Burgin, DTM&H, MB, BCh, Assistant Professor of Dermatology, Beth Israel Deaconess Medical Center
Planned and sponsored by the Academy Resident as Teacher Interest Group

Specialty consultations in academic medical centers represent an important opportunity for resident work-based learning. Teaching in the setting of inpatient consultation improves patient care, enhances critical thinking in our learners, empowers the primary team to participate in care decisions, and if done in a way that addresses teaching skills as well as clinical care, improves the educator skills of future faculty. However, teaching in the setting of consultation can be challenging due to multiple factors.

This symposium examined factors affecting the consult interaction, proposed interventions to enhance the interaction between the consultant and the primary team, particularly between residents and fellows and focused on two skills important for teaching during consultation: 1) how to ask effective questions to engage and assess the learner, and 2) how to utilize a framework for teaching in the time-limited setting of consultation. The symposium provided participants with skills that can be used to teach during consultation, and will help program directors and consultants teach such skills to trainees.

Welcome and Introduction: Challenges and Solutions to teaching during Consultation
Eli Miloslavsky, M.D., Instructor in Medicine, Massachusetts General Hospital
Susan Burgin, DTM&H, MB, BCh, Assistant Professor of Dermatology, Beth Israel Deaconess Medical Center

Rapid Learner Assessment Through Effective Use of Questions
Richard M. Schwartzstein, M.D., Director of the Academy at Harvard Medical School. Ellen and Melvin Gordon Professor of Medical Education, Beth Israel Deaconess Medical Center
Jakob McSparron, M.D., Instructor in Medicine, Beth Israel Deaconess Medical Center

Interspecialty consultation provides a unique opportunity for fellows to teach residents. This session explored how effective questions can assist in the rapid assessment of consulting residents’ fund of knowledge. Questions are also an essential vehicle to engendering critical thinking. The aim of this interactive session was to provide participants with strategies for effective use of questions in the setting of consultation.

Learning Objectives: At the end of this session, participants were able to:
- Ask questions to assess learners in a time limited setting.
- Describe the value of open-ended questions.
- Practice the use of questions to support and assess critical thinking.
PARTNER framework for Teaching During Consultation

Eli Miloslavsky, M.D., Instructor in Medicine, Massachusetts General Hospital
Susan Burgin, DTM&H, MB, BCh, Assistant Professor of Dermatology, Beth Israel Deaconess Medical Center

This presentation will introduce participants to the PARTNER framework, which was developed to facilitate interspecialty teaching in the consultation setting. The PARTNER framework is based on adult learning theory principles and incorporates the microskills of clinical teaching (Neher). Participants had a chance to model the framework in this interactive session.

Learning Objectives: At the end of this session, participants were able to:

• Describe an approach to teaching during consultation.
• Apply the PARTNER framework to consultation scenarios.

Advancing your Career Development as a Medical Educator

Monday, May 9, 2016

Chairs: Carol Bates, M.D., Associate Dean for Faculty Affairs, Associate Professor of Medicine; John Dalrymple, M.D., Member of the Faculty of Obstetrics, Gynecology and Reproductive Biology, Beth Israel Deaconess Medical Center; Colleen Monaghan, M.D., Assistant Professor of Medicine and Pediatrics, Brigham and Women’s Hospital and Children’s Hospital Boston

Planned and sponsored by the Academy Mentoring Interest Group

This symposium was planned both for faculty who desire career advice for themselves and for mentors providing guidance for mentees. In a prior survey of Academy members, many expressed a need for mentorship in their personal career development. This symposium described pathways to career development for medical educators. The symposium began with a panel discussion; educators representing a range of careers in medical education shared elements critical to their career success. This was followed by small group sessions in which participants explored core career development themes in detail. The symposium concluded with an opportunity to network with educators across the HMS community.

Learning Objectives: At the end of this session, participants were able to:

• Identify critical milestones in career development in medical education.
• Distinguish practical steps or skills that medical educators can use to promote career development.
• Enhance their medical educator network.

Developing a Career in Medical Education: A Panel Discussion

Facilitator: Richard Schwartzstein, M.D., Director of the Academy, Ellen and Melvin Gordon Professor of Medical Education, Beth Israel Deaconess Medical Center
Panelists: Rebecca Berman, M.D., Assistant Professor of Medicine, Brigham and Women’s Hospital, John Dalrymple, M.D., Member of the Faculty of Obstetrics, Gynecology and Reproductive Biology, Beth Israel Deaconess Medical Center, James Gordon, M.D., Professor of Emergency Medicine, Massachusetts General Hospital, Anjala Tess, M.D., Associate Professor of Medicine, Beth Israel Deaconess Medical Center

Workshops:
Promotion for Clinician-Educators
Carol Bates, M.D., Associate Dean for Faculty Affairs, Associate Professor of Medicine

Participants reviewed the HMS Areas of Excellence and metrics for promotion pertinent to educators, and addressed questions about the promotions process.
Developmental Networks: Mentors and Mentees
Jean Emans, M.D., Mary Ellen Avery Professor of Pediatrics, Children’s Hospital Boston
This workshop guided participants to examine their current personal “board of directors” for their academic career with an eye towards areas in which one might seek additional mentors or mentees.

Building your Scholarship Portfolio
Grace Huang, M.D., Associate Professor of Medicine, Beth Israel Deaconess Medical Center, Lori Newman, EdM, Principal Associate in Medicine, Beth Israel Deaconess Medical Center
Participants learned about publication opportunities on MedEdPortal and general approaches to facilitate their scholarship in medical education.

Formal Training in Medical Education
Facilitator: Colleen Monaghan, M.D., Assistant Professor of Medicine and Pediatrics, Brigham and Women’s Hospital and Children’s Hospital Boston
Panelists included representatives from: HMS Academy Fellowship in Medical Education; Harvard Macy Programs; Rabkin Fellowship in Medical Education; and Specialty Education Fellowship Training Panelists addressed opportunities for and the value of fellowship training in medical education locally in Boston as well as nationally.

Small Group Networking Session:
Participants engaged in informal discussions centered on:
• Cultivating Leadership Opportunities in UME.
• Cultivating Leadership Opportunities in GME.
• Getting Promoted as an Educator.
Modern Simulation: A New Frontier for Performance Assessment in Medicine
Thursday, June 16, 2016

Chair: James A. Gordon, M.D., MPA, Professor of Emergency Medicine and Director, Gilbert Program in Medical Simulation, Harvard Medical School; Director, MGH Learning Laboratory and Chief, Division of Medical Simulation, Department of Emergency Medicine, Massachusetts General Hospital
Planned and sponsored by the Academy Simulation Interest Group

While Simulation-Based training and assessment are commonly coupled as professional development tools in high-risk industries, its use as a clinical performance evaluation tool across health care has been relatively limited. Over recent years, however, Core Competency and Maintenance of Certification frameworks have provided increasing opportunities to consider an expanded role for modern simulation as a clinical performance assessment tool. This session explored the unique opportunities and challenges of using simulation to inform our evaluation of training milestones and practice benchmarks in medicine.

Learning Objectives: At the end of this session, participants were able to:
• Describe the theory and practice of Simulation-Based Performance Assessment.
• Characterize the advantages and disadvantages of Simulation-Based Performance Assessment in health care.
• Discuss how Core Competency and Maintenance of Certification frameworks can be enhanced by Simulation-Based Performance Assessment.

Getting Good Data from Simulation-based Assessments
Emil R. Petrusa, Ph.D., Senior Educational Researcher, Department of Surgery and MGH Learning Laboratory, Massachusetts General Hospital; Associate Professor, Harvard Medical School

Simulation-based Assessment to Identify and Characterize Performance Gaps Early in Anesthesia Training
Richard H. Blum, M.D., MSE, FAAP, Director, Harvard Assessment of Anesthesia Performance Group, Harvard Departments of Anaesthesia; Director, Pediatric Anesthesia Simulation, Boston Children’s Hospital and the Center for Medical Simulation; Associate Professor of Anaesthesia, Harvard Medical School

Simulation-based Assessment of Non-technical Skills
Steven Yule, Ph.D., Director of Education and Research, STRATUS Center for Medical Simulation, Brigham & Women’s Hospital; Assistant Professor of Surgery, Harvard Medical School

A Competency-based Approach to Simulation Assessment of Resuscitation Skills in Postgraduate Trainees
J. Damon Dagnone, M.D., FRCP, MMed, CBME Faculty Lead, Postgraduate Medical Education, Associate Professor, Department of Emergency Medicine, Queen’s University, Canada
Medical Education Grand Rounds
Faculty Development Workshops
Inter-Hospital Collaborative
Medical Education Grand Rounds

Director: David A. Hirsh, M.D.

Innovations in External Education: Teaching New Learners in New Ways

Friday September 11, 2015
David H. Roberts, M.D., Dean for External Education, Harvard Medical School

Created in 2014, the Office of External Education has extended the reach of HMS in several aspects of medical education for new and existing populations of learners including lay individuals, students considering medical school, and physicians in practice worldwide. As the inaugural Dean for External Education, Dr. David Roberts has brought together educators from across the HMS community to design and implement novel programming in medical education leveraging new technologies and new venues for learning. In the kick-off session of the HMS Academy’s 2015-2016 Medical Education Grand Rounds series, Dr. Roberts shared his vision for HMS External Education and described examples of the insights being gained from new External Education content and programs.

Medical Education’s Global Transformation and Reach: Opportunities for Research Translation and Social Accountability

Friday, October 2, 2015
Paul Worley, M.D., Dean of Medicine, School of Medicine, Flinders University, Adelaide, Australia

The first global wave of reform to modern medical education occurred early in the 20th century following the Flexner report. The second wave arose in the latter half of the last century driven by problem based learning and community orientation. Recently, the Lancet Commission called for a third wave of reform to create transformative system-based medical education. This is an excellent aspiration...but is it possible? How can we translate new knowledge from neuroscience, sociology, and the sciences of learning to meet this calling? Will we be able to make the transition from eminence-based medical education to evidence-based medical education, and in doing so, what will be the impact on addressing learner’s needs, institutional priorities, and societal imperatives? How accountable will we be for the results of our efforts? Drawing on evidence from medical schools around the world, we explored these critical questions and others. We were able to leave Medical Education Grand Rounds more curious, informed, and motivated to apply the same level of rigor, passion and creativity to our medical education as we do to our medical practice and our research.
Operationalizing a Program of Assessment for Medical Learners  
Wednesday, November 4, 2015  
Eric Warm, M.D., Richard W. & Sue P. Vilter Professor of Medicine Director, Internal Medicine Training Program, University of Cincinnati College of Medicine  

Medical educators are in the assessment business. Nationally, across institutions, undergraduate medical educators struggle to find the best means to assess students. In graduate medical education, the struggle continues—we must choose the right applicants for our programs, and once chosen, we must assess their progress toward competence. Unfortunately, in each phase of the education continuum, assessment is often of poor quality and put to suboptimal use. This presentation reviewed the evidence behind these assertions, and detailed several models from the literature designed to produce high quality assessment. Two novel programs of assessment were presented in depth, with an analysis of the successes and failures of each. Participants discussed potential next steps in this work.

Building Diversity: A Voyage  
Wednesday, December 16, 2015  
Andre Churchwell, M.D., Professor of Medicine (Cardiology), Professor of Radiology and Radiological Sciences, Professor of Biomedical Engineering, and Senior Associate Dean for Diversity Affairs Vanderbilt University School of Medicine  

Diversity and inclusion reside among the central values of medical education institutions. In this session, HMS alumnus (’79), André L. Churchwell, M.D., Senior Associate Dean for Diversity Affairs of Vanderbilt University School of Medicine (VUSM), reflected upon the voyage undertaken at VUSM to build the climate and structures to best support diversity and inclusion. Dr. Churchwell used the theme of an evolution of diversity into VUSM’s culture, characterizing how the institution went form a “diversity 1.0” conceptual framework to a “diversity 3.0” framework. Dr. Churchwell shared the successes and challenges along the way and how VUSM hard-wired diversity and inclusion into institutional culture.

Young Adult Learners: Helping Students Care for Themselves Sooner Rather Than Later  
Friday, January 22, 2016  
Regina Mitchell, M.D., Director of the Office of Advising Resources, PME-Student Affairs, Harvard Medical School  

Medical students, like all adult learners, may face learning challenges that arise from many sources—from learning disabilities, to mental health, to family health, to substance abuse, and beyond. This session was designed as a case analysis and conversation with Dr. Regina Mitchell, the HMS Director of Advising Resources. In this session, participants discussed and learned about students’ real struggles and the relevant resources used to assist and remediate problems, as well as the repercussions, records, residency issues, and other repercussions of student challenges.

Culture, Climate, and Our Community: The Intersection of the Generations  
Friday, February 05, 2016  
Nancy Oriol, M.D., Dean for Students, Harvard Medical School  

There are 4 generations practicing medicine today. Who are they, who defines them, and why does it matter? Everyone says that generations differ; is this true, and what would make generations differ? While it may be hard to disentangle all the reasons that generations appear to differ, there are 3 processes that seem to be important: 1. Lifecycle effects (in age); 2. Period effects (seminal events); and 3. Cohort effects (major events that happen as the cohort comes of age). Each generation has its own cultural norms, which vary across generations. Individuals may experience the culture of another generation as more or less congenial. As we each consider our own culture as “normal,” we may cause others to experience us as biased and judgmental. Such experiences and perceptions affect education in medicine. In this session, we considered education and professional development through multiple lenses: culture, the way of life of a group of people determined by their common values; climate, what people feel within a prevailing culture; and the community of physicians in the workforce today arising from 4 different generationally-determined cultures. How shall we all get along? How can we learn to harness these forces to propel progress in medical education and practice?
**Curriculum development consultants: Integrating the learner’s perspective in curriculum reform**

Wednesday, March 23, 2016

*Jordan Douglas Anderson, BS, Second Year Medical Student, Harvard Medical School*

*Christopher Fox Calahan, BS, Second Year Medical Student, Harvard Medical School*

Nationally, medical educators are increasingly involved in educational transformation efforts. In undergraduate medical education, educators are employing pedagogy that minimizes traditional lecture-based learning in favor of more deliberative and collaborative learning. In such reform efforts, student perspectives on effective instruction provide a key resource. However, maximizing students’ constructive engagement poses logistical and structural challenges.

To support the curriculum reform effort at Harvard Medical School (HMS), a group of medical students developed an innovative “Curriculum Development Consultant” model. This program connects students to the curriculum development processes and aids faculty as they transition to a new pedagogy. Since launching this program in August 2015, students have performed over twenty consultations covering a diverse array of courses and topics. In this Medical Education Grand Rounds, HMS student leaders presented this model and discussed faculty and student feedback on this approach to advancing and enriching curriculum reform.

**Philosophy, Psychiatry, and Neuroscience: A Synthetic Approach to Mind, Brain and Learning**

Wednesday, April 06, 2016

*Edward Hundert, M.D., M.D., Daniel D. Federman, M.D., Professor in Residence of Global Health and Social Medicine, Dean for Medical Education, Harvard Medical School*

In this interdisciplinary talk, Dr Hundert presented a synthesis of ideas from philosophers, psychiatrists, and neuroscientists in an effort to find a common language through which these diverse views of the human mind can contribute insights one to the next. Drawing on thinkers from Plato, Kant, Freud, Hegel, and Hume to modern neuroscientists and researchers in artificial intelligence, Dr. Hundert compared the ways various fields interpret the “nature-nurture debate” around the question of how our basic concepts of the world find their way into our brains. He also compared these cognitive theories of knowledge with moral theories of social values. He concluded by inviting discussion about how this interdisciplinary view might inform the way we should think about the curriculum reform under way at Harvard Medical School.

**Teaching in new ways: The importance of faculty development**

Friday, May 06, 2016

*Barbara Cockrill, M.D., Harold Amos Academy Associate Professor, Director of Faculty Development, The Academy at Harvard Medical School*

In August 2015, HMS embarked on a new journey: the *Pathways* curriculum. In a major undertaking, not only were courses completely redesigned, but the effort incorporated a change in pedagogy. In *Pathways* pedagogy, learning is recognized as a joint responsibility shared by student and faculty. Guiding principles of the *Pathways* pedagogy include an emphasis on critical thinking, accountability for self-directed learning, and classroom interactivity at multiple levels: student-student, student-teacher and teacher-teacher. The change in instructional methods represented a challenge for students, but also required a transformation for faculty. How do faculty best facilitate a discussion with forty students? How do faculty best prepare “homework” for student preparation? Should homework be reading, videos, prepared syllabus material? How do faculty of different specialties best work together as paired teachers? Although we don’t have all of the answers (as the “answers” often differ for each course), we are on the way to a cohesive program. In this session, we discussed the faculty experience and proposed some “best practices” learned from the launch of the *Pathways* curriculum. This session was also intended to serve faculty in clinical rotations and advanced science courses to better characterize the experience of students who would be joining them soon!
Best of the Best: Society of General Internal Medicine’s Review of Academic Papers Most Likely to Impact Medical Education

Friday, June 10, 2016

Carol K. Bates, M.D., Associate Professor of Medicine, Associate Dean of Faculty Affairs, Beth Israel Deaconess Medical Center, Harvard Medical School

Advances in medical education are published every year in a wide range of journals. A group of seven general internists and one librarian in the Society of General Internal Medicine distill by consensus the prior year’s articles, selecting those with new insights that might change educational practice. Articles are then grouped into themes; these themes vary from year to year depending upon the year’s best literature.

Themes from this review of the 2015 medical education literature are: trainee mental health; trainee evaluation; implicit bias in our learners; education interventions; and the primary care clinic. In this medical education grand rounds, 11 articles were presented with time for audience reflection and discussion following each section.
Academy Faculty Development Workshops are organized by the Academy Interest Groups and offered to faculty at Harvard Medical School.

From Minefields to Learning Opportunities: Managing Sensitive Issues about Culture, Race, Ethnicity, Sexual orientation and Gender Identity in the New Pathways Curriculum

Friday October 9, 2015
Faculty Development Workshop Sponsored by the Cross Cultural Care Academy Interest Group
Alexander R. Green, M.D., Associate Professor of Medicine and Co-Chair, Academy Interest Group on Cross Cultural Care, HMS
Lidia Schapira, M.D., Associate Professor of Medicine and Co-Chair Academy Interest Group on Cross Cultural Care, HMS

The practice of medicine takes place in the context of the social, political and cultural environment of our times, and the teaching of medicine must take that into account. Generational differences and deeply held opinions may lead to tension and even conflict between students and faculty around issues of culture, race/ethnicity, sexual orientation, gender identity, and other factors. These issues can interfere with our ability to create an inclusive and stimulating learning environment for students. In this workshop, we used case studies of real and composite situations which have occurred at HMS to explore how faculty can best handle sensitive issues which arise in medical school courses. We convened a group of experts and addressed techniques for avoiding and resolving conflict and provided faculty with the necessary tools to handle these issues empathetically, strategically and proactively.

Break-Out Groups:

SEXUAL ORIENTATION AND GENDER IDENTITY
Jennifer E. Potter, M.D.
Fidencio Saldaña, M.D., MPH

COMMUNICATION AND CONFLICT
Lidia Schapira, M.D.
Darshan H. Mehta, M.D.

RACE AND ETHNICITY
Martha Cesena, M.D.
Augustus A. White III, M.D., Ph.D.

SOCIO-DEMOGRAPHIC IDENTIFIES IN CASE STUDIES
Alexander Green, M.D.
Karen M. Winkfield, M.D., Ph.D.
Helen Marie Shields, M.D.

Learning Objectives: At the end of the session, participants were able to:

- Describe methods to address sensitive issues relating to culture, race/ethnicity, sexual orientation, gender identity, and other factors with medical students in the context of their coursework.
- Recognize our own unconscious biases and unintended behaviors and how these may contribute to tensions in the classroom or clinical setting.
- Identify ways to turn sensitive issues into learning experiences.
Giving Voice to the "Silent" Curriculum: Cultural Sensitivity, Explicit Reflection, and the Role of the Bystander in Medical Education

Monday, March 14, 2016
Faculty Development Workshop Sponsored by the Cross Cultural Care Academy Interest Group
Faculty Planning Committee: Sigall Bell, M.D.; Katie Brooks MSIV (Brown University Medical School, Providence RI); Alexander Green, M.D.; Jennifer Kesselheim, M.D.; Jason Fogler, Ph.D.; Alan Woolf, M.D.; Jennifer Potter, M.D.
Facilitators: Jason Fogler, Ph.D.; Jennifer Kesselheim, M.D.; Danielle Olveczky, M.D.

The healthcare community is working to promote a more multiculturally aware and tolerant climate for all stakeholders, including patients, families, staff members, faculty and students. Numerous challenges remain: What do you do when a clinic patient asks to see a ‘white’ doctor? Are you aware when the ‘silent curriculum’ shows up in your teaching? Under the stress and pressure of patient care, have we ever made insensitive jokes to blow off steam -- or laughed upon hearing a colleague make an insensitive joke? Prejudice and discrimination remain critical issues for all Americans, as painfully apparent in recent events taking place in Ferguson Missouri, New York City, Baltimore Maryland, and elsewhere. As educators, we have a duty to learn how to respond productively when we witness verbal and nonverbal expressions of unconscious bias with regard to a person’s perceived race, ethnicity, sexual orientation, gender identity, religion, ability status, or other sociocultural characteristics. Mitigating the harm that can result from such biases is possible by increasing awareness of and examining our own attitudes and learning to speak up as bystanders. In this case-based workshop, participants examined the challenges posed by the silent curriculum, using interactive exercises. We explored narratives from our own experiences, including both faculty and student perspectives. In exploring implicit biases in medical education through role modeling and dialogue, we intend to set the tone for a model community, one which makes such challenges explicit, with a commitment to reflection, mindful choices, and respectful discourse within our community of learners and educators.

Learning Objectives: At the end of the session, participants were able to:

• Explain how expressions of bias with regard to a person’s perceived race, ethnicity, sexual orientation, gender identity, religion, ability status, or other sociocultural characteristics may manifest in the silent curriculum and how implicit but unintended messages may be internalized by learners.

• Discuss strategies to make such issues explicit and a focus for shared reflection with learners.

• Begin to apply the New Pathways Curriculum to model more culturally sensitive interpersonal interactions, thereby helping to mitigate adverse consequences of implicit bias on the learning environment and patient care.
Diversity as a Quality Indicator in Medical Education

Friday, April 8 2016 7:30AM -9AM
Faculty Development Workshop Sponsored by the Cross Cultural Care Academy Interest Group
Elorm F. Avakame, Third Year Medical Student, HMS
Daniele Olveczky, M.D., Instructor in Medicine, BIDMC
Clyde Lanford (Lanny) Smith, M.D., MPH, DTM&H Assistant Professor of Medicine, BIDMC
Nancy Torres-Finnerty, M.D., SFHM, Assistant Professor of Medicine, BIDMC

Recognition of the importance of diversity as an indicator of quality in medical education acquires heightened importance when education is connected to health care. The presence of under-represented minority (URM) clinician-educator role models provides greater opportunities for inclusive teaching, mentorship and culturally appropriate care. Conversely, the absence of URM representation in faculty can lead to gaps in culturally appropriate and inclusive teaching. These gaps include situations in which patients, students, or faculty show overt or implicit racial bias toward one another without being aware. The purpose of this workshop is to explore how diversity enhances quality in medical education, to inspire recruitment of diverse faculty within medical training programs, and to demonstrate ways to avoid and remediate problematic situations through an evidence-based diversity toolkit. By incorporating diversity into medical education and recognizing diversity as an indicator of its quality, clinicians will be better equipped to provide excellent cross cultural care, which has been shown to improve patient outcomes and reduce health disparities.

Learning Objectives: At the end of the session, participants were able to:

• Describe ways in which having a diverse faculty and student body can impact education to enhance excellent cross-cultural patient care, drawing from the medical education literature
• Explain the concept of bias and demonstrate methods to proactively address potential and expressed biases from faculty, students, and patients.
• Identify tools to affirm diversity as a marker of quality in health-related teaching scenarios (ex: bedside, classroom)
Thinking about our Thinking: An Exploration of Cognitive Bias and Clinical Reasoning Pitfalls

Tuesday, May 10, 2016 7:30-9:00 AM
Faculty Development Workshop sponsored by the Critical Thinking Academy Interest Group
Kathleen Huth, M.D., FRCPC MMSc. Medical Education Candidate, Harvard Medical School
Lecturer, Department of Pediatrics, University of Ottawa
Celeste Royce, M.D. Instructor, Department of Obstetrics and Gynecology, Beth Israel Deaconess Medical Center

The diagnostic process is a complex activity that relies on critical thinking skills often not explicitly taught in medical school. In light of a recent report by the Institute of Medicine on diagnostic error in health care, we are called to examine our decision-making processes and potential pitfalls as a quality imperative. The Pathways curriculum at HMS has incorporated explicit teaching of clinical reasoning skills in the context of the cognitive science about how we think.

In this interactive workshop, participants engaged in activities that encourage metacognition, drawing from the psychological and behavioral economics literature. We explored real clinical cases in which cognitive bias has been a contributing factor in patient morbidity and mortality. We intended for these reflections to serve as a springboard for discussion on de-biasing strategies, as we address the challenge of developing an educational culture that is purposeful in fostering clinical reasoning skills in our learners.

Learning Objectives: At the end of the session, participants were able to:

• Explain the use of heuristics in the clinical reasoning process, and potential ramifications for patient care.
• Describe common cognitive biases and recognize how they manifest in clinical cases.
• Discuss strategies for improving clinical reasoning skills, with the goal of mitigating medical error.
The aim of the *Medical Education Inter-Hospital Collaborative* sessions is to share a selection of educational initiatives and research projects emanating from our HMS affiliated hospitals. From these sessions, faculty can learn about exciting educational work being conducted in the clinical environment, develop collaborations between individuals with similar interests, and share best practices. Each program includes presentations from faculty at two different HMS hospitals.

**Discussion of an Educational Research Methodology: Textual Analysis**

Wednesday, February 10, 2016  
**Nora Osman, M.D., Assistant Professor of Medicine Brigham and Women’s Hospital**  
**Kathryn L. Butler, M.D., FACS Instructor in Surgery Associate Director of the Surgery Clerkship Massachusetts General Hospital**

In this session, we explored textual analysis as applied to two studies of medical students. This session provided participants with an introduction to this research methodology and gave them an opportunity to see how it is applied to education research within the HMS system.

**Understanding Medical Student Career Choices Using Textual Analysis**  
*Nora Osman, M.D., Assistant Professor of Medicine, Brigham and Women’s Hospital*

Dr. Osman provided a basic overview of the use of textual analysis in medical education research, highlighting recent and ongoing projects.

**Validity of an OSCE in the Surgical Clerkship: Analyzing Written Feedback**  
*Kathryn L. Butler, M.D., FACS Instructor in Surgery, Associate Director of the Surgery Clerkship, Massachusetts General Hospital*

Dr. Butler reviewed validation research for an OSCE using a high-fidelity simulator, with emphasis on textual analysis.

Learning Objectives: At the end of the session, participants were able to:

- Describe the basics of textual analysis.
- Identify research topics appropriate for textual analysis methodology.

Learning Objectives: At the end of the session, participants were able to:

- Identify applications of textual analysis to exam validation.
- Employ textual analysis to enrich data from student assessments.
Resident Initiatives in Medical Education

Wednesday, March 16, 2016
This session of the Inter-hospital Medical Education Collaborative was designed to showcase resident education research initiatives.

Learning Objectives: At the end of the session, participants were able to:

• Identify the opportunities and challenges for trainee participation in medical education projects.
• Develop multidisciplinary and inter-professional hospital-based projects.
• Develop plans for mentoring trainees interested in medical education.

Cultural and Language Gaps: Overcoming Communication Barriers on the Pediatric Ward
Zeena Audi, M.D., Resident in Pediatrics, Boston Children’s Hospital
This presentation reviewed a novel program that uses interpreters to teach residents how to work with interpreters to communicate effectively with non-English speaking patients and families, and to understand cultural issues around communication.

Radiology Imaging 3.0 with Medicine Department
Dong Kim, M.D., Radiology Resident, Mt. Auburn Hospital
Aftab Iqbal, M.D., Chief Medical Resident, Mt. Auburn Hospital
Radha Mehta, M.D., Chief Medical Resident, Mt. Auburn Hospital
This presentation focused on an ongoing program at the Mount Auburn during which Dr. Kim attends a Morning Report designed to involve all medicine housestaff across PGY levels. There, he not only provides additional interpretation of imaging for new admissions but is a ‘real-time’ consultant about the judicious use of subsequent radiologic studies that may be needed. The initiative, which is to become incorporated into the MAH radiology program, facilitates dialogue between radiology and medicine, fosters interdepartmental resident relationships and fits within the national ‘Choosing Wisely’ initiative for appropriate testing utilization.
FACULTY DEVELOPMENT FOR PEDAGOGY IN THE PATHWAYS CURRICULUM

Beginning in August 2015, Harvard Medical School launched an innovative new curriculum – *Pathways*. In addition to restructuring of pre-clerkship courses, the Pathways curriculum focuses on a new pedagogical approach emphasizing a joint responsibility between student and faculty for learning. In this pedagogy, content transfer—the learning of facts—is largely moved out of the classroom, so that student-faculty interaction can center on application and analysis of material. Most of the classroom sessions are in a new format: Case-based Collaborative Learning (CBCL).1 Student preparation, personal/team accountability for self-directed learning, classroom interactivity, reflection, relevance, and critical thinking are the goals.

Extensive faculty development is required to help teachers learn to teach in new ways. In addition to the Academy’s far-reaching faculty development program which is open to all members of the Harvard Community, the Academy has created faculty development programs specifically designed for teachers in the Pathways curriculum. During the first year of the new curriculum, faculty development efforts were primarily focused on faculty teaching in the Basic Science/First year courses. Sessions have been course-specific, employing a “just-in-time” approach linked to the pace of course development. Two different seminars on CBCL were planned for each of the six Foundational Science courses—the first focuses on preparing curricular content, and the second on conducting a CBCL session. In addition, seminars focusing on creating concept videos and writing multiple choice questions were held and open to all faculty. Because the vast majority of faculty teaching at HMS have other clinical, administrative and research responsibilities, the general workshops are run multiple times. Many 1:1 faculty development sessions are conducted as well.

The Academy has created a number of videos demonstrating the CBCL pedagogy in action, as well as a video introducing this pedagogy to new students. These videos are available on the Academy Website.

Running concurrently with the Foundational Sciences courses, the Practice of Medicine (POM) course brings students into the clinical realm during the first year. The Academy organized successful POM Faculty mini-retreats in the summer 2016 with follow-up sessions taking place in the fall and more planned for the spring. Our goal is to reinforce and demonstrate the relevance of basic science principles learned at the classroom when the students are at the bedside, and to prepare students better for entry into clinical clerkships.

In an innovative program, the Academy continues to work with the HMS Student Interest Group for Medical Education to provide student input and feedback for faculty who are developing new materials and courses. Through the link on the Academy website, faculty can request an in-depth review of materials by individual students or a meeting with a student focus group. Thus far, both faculty and students have found this program to be very important.

As the first class of Pathways students enter their clerkships, faculty development efforts had to include clinical faculty in the hospitals. The Pathways students have learned in a new way, and it is important for the clinical faculty to understand and reinforce the new pedagogy. In addition to central sessions at HMS, sessions are being held locally at each hospital.
Fellowships in Medical Education

Jackson Academy Fellows

Curtis Prout Academy Fellows

Morgan-Zinsser Academy Fellows

Fellowship in Medical Education Research
FELLOWSHIPS IN MEDICAL EDUCATION

DIRECTORS: David A. Hirsh, M.D.  
Associate Director of the Academy  
Director of the Academy Fellowship in Medical Education  
Associate Professor of Medicine, Harvard Medical School

OVERVIEW: Fellowships provide physician educators with dedicated time over the course of one academic year to increase their knowledge of educational principles, to improve their skills as teachers, and to pursue a scholarly project in medical education. In addition to receiving Academy support, fellows benefit from funding through grants provided by several benefactors:

The Jackson Academy Fellows (teaching and mentoring) are named for Dr. James H. “Jimmy” Jackson, M.D., HMS ’43, through the generous gift of his wife, Mrs. Susan M. Jackson.

The Curtis Prout Academy Fellows (primary care) are named for Dr. Curtis Prout, HMS ’41, through the generous gifts of his past and present patients, colleagues, family and friends.

The Morgan-Zinsser Academy Fellows (focus: early career development of junior faculty) are named for Dr. Herbert Morgan, HMS ’42, and his mentor, Dr. Hans Zinsser, through the generous gift of Dr. Herbert Morgan.
Academy Fellows In Medical Education 2015-2016

Curtis Prout Fellows of the Academy

Gaurab Basu, M.D., MPH
Curtis Prout Academy Fellowship in Medical Education  
Instructor in Medicine, Cambridge Health Alliance, Harvard Medical School  
Project: Evaluation Agenda for Research Based Health Advocacy Curriculum

Jeffrey Linder, M.D., MPH, FACP
Curtis Prout Academy Fellowship in Medical Education  
Associate Professor of Medicine, Brigham and Women’s Hospital, Harvard Medical School  
Project: Development and Evaluation of the Pursuing Inquiry in Medicine Course and the Scholars in Medicine Graduation Requirement

Morgan-Zinsser Fellows of the Academy

Kathryn Butler, M.D.
Morgan-Zinsser Academy Fellowship in Medical Education  
Instructor in Surgery, Massachusetts General Hospital, Harvard Medical School  
Project: Validity and Feasibility of an OSCE for Student Assessment on the Surgical Clerkship

David Sloane, M.D., Ed.M.
Morgan-Zinsser Academy Fellowship in Medical Education  
Instructor in Medicine, Brigham and Women’s Hospital, Harvard Medical School  
Project: An Investigation of Health Theories

Harvard School Dental Medicine Academy Fellow

Lisa Thompson, D.M.D.
Instructor in Oral Health Policy and Epidemiology, part-time, Harvard School of Dental Medicine  
Project: The Development and Assessment of Curriculum for an Inter-professional Community-based Clinical Activity in Geriatric Oral Health for Medical, Dental and Nursing Students
FELLOWSHIP IN MEDICAL EDUCATION RESEARCH

DIRECTORS: Amy M. Sullivan, Ed.D. Director of the Academy Fellowship in Medical Education Assistant Professor of Medicine, Harvard Medical School
Amy Cohen, Ed.M., Co-Director of the Academy Fellowship in Medical Education

OVERVIEW: The Academy fellowship in medical education research is a two-year program available to Harvard-affiliated fellows or surgical residents who hold an MD or PhD or to current members of the faculty (faculty may opt for participation in one or two years of the program). Fellows meet weekly for two-hour sessions throughout the academic year. The focus of this program is to develop core skills in social science research methods as applied to undergraduate, graduate, and continuing education in the health professions. The fellowship began in January of the 2010-2011 academic year, and we have just completed our third two-year cycle.

Applications to the program have increased, and in the upcoming year we have eight fellows participating. Since the start of the fellowship in 2011, nine fellows and faculty have completed the program and are actively pursuing medical education research as clinician educator faculty with leadership positions in medical education at HMS, BIDMC, MGH, the University of Virginia, the Medical University of South Carolina, and the University of Edinburgh. Graduates of the program have authored a total of 37 publications in medical education since program completion, and have won numerous local and national research awards. For a list of current fellows and their projects see: https://hms.harvard.edu/departments/academy/academy-office-education-research/research-fellowship/current-medical-education-research-fellows.

We were delighted this year to have Amy Cohen, MPH, join us as Co-Director of the fellowship. Amy is Director of Interactive Data Analytics in the Division of Policy Translation and Instructor in the Department of Health Policy and Management at the Harvard T. H. Chan School of Public Health. She is an experienced researcher with special expertise in statistical analysis and the SAS® JMP statistical software. Amy is a gifted teacher who has helped the fellows gain a solid base in performing analyses of data from their fellowship projects.
The Academy Office for Education Research exists to promote scholarly research within medical education.

Its mission is to:

• Direct the Fellowship in Medical Education Research.
• Foster faculty development in research related to medical education.
• Serve as a resource for students pursuing scholarly research projects in medical education.
• Act as a networking center for medical education research throughout the HMS community.
• Carry out research to advance the field of medical education.
• Provide scientific review for all medical education research projects involving HMS students as research subjects.

Note from the Director
I think my work offers me the best of all worlds. I get to work with faculty and fellows who are dedicated to the three prongs of medical education: teaching, clinical care, and research. Through the Academy Fellowship in Medical Education Research, my teaching gives me the opportunity to share my knowledge of social science theories and research methods with clinicians and researchers who are keen to contribute to scholarship in education that will ultimately improve patient care. I learn at least as much from the fellows as I teach, and we have fun in the process of creating a vibrant learning community over the course of the two fellowship years. In addition, though multiple collaborations with faculty from HMS and affiliated hospitals, I have been able to contribute to an incredible array of research projects, including interventions to enhance medical student, resident, and fellowship education, efforts to identify best practices in faculty career development and teaching, approaches to testing technological interventions to enhance learning, and exploration of theories and practices in critical thinking and behavior change.

My own research interests are aimed at contributing to clinical care through projects focused on teaching and learning related to clinician-patient-family communication, psychosocial care and symptom management for patients who are critically ill or near the end of life. These efforts also attempt to cultivate compassion in learners in both educational and clinical settings. Working at the intersection of social science and medical education offers a wealth of opportunities for inquiry. At the national level, there has been an upsurge of interest in and receptivity to innovation in medical and interprofessional education in recent years, making this a particularly exciting time for education researchers. I feel very fortunate to be able to work with a group of incredibly talented and kind colleagues. Some highlights of our work of the past year are described below.

Fellowship in Medical Education Research
Our Fellowship in Medical Education Research is a two-year program for clinical fellows, surgical residents in their research years, and clinical and PhD faculty (with faculty having the option of joining for one or two years). In AY 2015-2016, we completed our third cycle of the program, with this second year of the two-year program focusing on survey research, quantitative methods of analysis, and the skills needed to develop and assess tests and measures. Further details of the fellowship are described on page 38.
Research consultation and collaboration
The Office for Research has continued to consult to and collaborate with faculty, fellows and residents from MGH, BWH, BIDMC, CHA, and Mt. Auburn hospitals. Consultations include support in research design, survey development, and qualitative and quantitative analysis. Collaborations include work with the HMS Office of Evaluation in a major research effort to evaluate the HMS curriculum reform (“Pathways” curriculum), supported by a grant from the Harvard Initiative in Learning and Teaching (with lead investigator Ed Krupat, PhD). A collaboration with the HMS Office of Faculty Affairs has documented the positive impact on faculty promotion and retention of the Eleanor and Miles Shore Fellowship Program for Scholars in Medicine.

The Office also works with students who are pursuing research in medical education as their Scholarly Project. Because students’ faculty mentors who have expertise in the content area may not always be experts in the research methods needed for these educational projects, the Office for Research has played a role in enabling students to carry out rigorous qualitative and quantitative research studies in their areas of interest. These include learning how to conduct focus groups and analyze qualitative data, designing high quality surveys, considering different approaches to study design, and advice on statistical analysis of survey data.

Collaboration with other HMS programs
Dr. Sullivan works with the Scholars in Medicine Office as a member of the faculty advisory council, and as a reviewer for student research proposals and final projects. She also serves on the thesis or advisory committees of several students in the new HMS Master’s of Science Program (MMSc) in Medical Education, and consults with MMSc students as needed for their projects. Dr. Sullivan also presents an annual lecture to the Master’s students on conducting secondary data analysis for medical education research, and annual seminars on teaching qualitative research methods, survey research, and obtaining IRB approvals for research for medical education fellows from the HMS Academy and Mt. Auburn Hospital.

National activities
With Dr. Richard Schwartzstein, the Office for Research represented the HMS Academy at the national level through leadership in the Academies Collaborative Executive Committee. Dr. Sullivan has served as Co-Chair for the Committee for the current academic year, and has led efforts to conduct the annual meeting for the Academies Collaborative at the AAMC annual conference. The meeting in 2015 featured a panel of Academy directors, including Dr. Schwartzstein, leading a discussion on the relative strengths of different membership structures. Dr. Sullivan gave a talk on approaches to evaluating the impact of Academies on their medical schools.

This spring we were proud to have launched a new website (see screenshots below) for the Academies Collaborative to extend the reach of the collaborative and to foster networking and resource sharing among academies across the country. The website includes a quarterly newsletter, a listing of all member Academies, and resources to support newly-forming Academies: see www.academiescollaborative.com. We have also initiated a procedure to enable individuals to make selected requests for collaboration through the website. Our first call for participants resulted in 28 experts from around the country volunteering to join a Delphi study to identify key elements of a student-as-teacher curriculum. In the upcoming November AAMC meeting in Seattle, we plan to continue with work to assist Academies as they evaluate their impact both at a local and national level.
Communication, Compassion, and Empathy
Critical Thinking
Cross Cultural Care
Educational Technology
Feedback and Evaluation
Hidden Curriculum
Mentoring
Peer Observation of Teaching
Resident as Teacher
Science of Learning
Simulation
Writing for Scholarship
At the Academy membership meeting in March 2011, we discussed the importance of the role of an Academy member in making our efforts successful. Members were selected for the Academy because of their leadership roles and commitment to medical education at the UME and GME levels. One of the mechanisms by which they can make a difference in education at HMS is through their participation in one of the Academy “interest groups.” One new interest group was added this year: The Science of Learning. Among the responsibilities of the interest groups is to assist in the planning and implementation of a major symposium once every three years for the benefit of the faculty at-large. Based on comments from the spring Academy meeting and feedback on Academy membership applications, we have identified common themes that have emerged for the organization of interest groups. In addition to the symposia, interest groups pursue a range of activities including:

- Generating ideas for Medical Education Grand Rounds.
- Creating proposals for special faculty development sessions of the Academy.
- Developing proposals for changes in or development of new curricula or assessment procedures.
- Pursuing outreach to junior faculty in the hospital-based academies and centers for education.
- Sponsoring journal clubs focused on their topic.

**CHAIRS:**

**Communication, Compassion, and Empathy**
Beth Lown, M.D., Kristin Schaefer, M.D.,
Amy Sullivan, Ed.D.

**Critical Thinking**
Joseph Rhatigan, M.D.
Celeste Royce, M.D.

**Cross Cultural Care**
Alexander Green, M.D.
Lidia Schapira, M.D.

**Educational Technology**
Praneeth Machettira M.D. MHA
Debra Weiner, M.D., Ph.D.

**Feedback and Evaluation**
Keith Baker, M.D., Ph.D.

**Hidden Curriculum**
Sigall Bell, M.D.,
Jennifer Kesselheim, M.D., M.Ed.

**Mentoring**
Carol Bates, M.D.
John Dalrymple, M.D.

**Peer Observation of Teaching**
Ayse Atasoylu, M.D.
Susan Burgin, M.D.

**Resident as Teacher**
Tracey Cho, M.D., M.A.,
Hope Ricciotti, M.D.

**Science of Learning**
Andrew Budson, M.D.

**Simulation**
James Gordon, M.D., M.P.A.

**Writing for Scholarship**
Jonathan Borus, M.D.,
Susan Pories, M.D., F.A.C.S.
UPDATE: During this academic year the Communication, Compassion, and Empathy (CCE) Interest group began planning our joint symposium for spring 2017. The symposium will build on the two Learning Guides that we developed in 2015 for faculty and incoming students in the Pathways Curriculum, with particular emphasis on the faculty guide for co-creating learning agreements with learners. This workshop will lead faculty through an exercise to identify the values, expectations, and needs of faculty and learners in a range of settings, including classroom, small groups, clinical teaching during rounds or at bedside. The purpose is to create a set of shared values and practices to enhance faculty-learner communication and to build a culture of care and mutual respect in the training environment. The symposium will address important faculty-student relationship and communication issues and will be jointly sponsored by the CCE and Hidden Curriculum Interest Groups.

In the coming year we will continue to expand our knowledge base, with faculty experts from our own group sharing their curricula, research, and scholarship in communication, compassion, and empathy. To date, we have had presentations from group members Beth Ryder, MD and Jonathan B. Livingston, MD FRSH (UK).

CHAIRS: Beth Lown, M.D. 
Kristen Schaefer, M.D.

MEMBERS: Hasan Bazari, M.D. 
Robert Cohen, M.D. 
Christy Cummings, M.D. 
Jason Fogler, Ph.D. 
Elizabeth Gay, M.D. 
Phyllis Gorman, M.S.N., C.N.M. 
Elizabeth Harry, M.D. 
Yamini Howe, M.D. 
Ed Krupat, Ph.D. 
Patrick Lee, M.D.

Amy Sullivan, Ed.Dt. 
John Livingstone, M.D., F.R.S.H (UK) 
Darshan Mehta, M.D., M.P.H. 
Elizabeth Rider, M.S.W., M.D. 
Laura Rock, M.D. 
Shannon Scott-Vernaglia, M.D. 
Amy Ship, M.D. 
Mark Simone, M.D. 
Jane DeLima Thomas, M.D. 
Alan Woolf, M.D., M.P.H.
UPDATE: Over the past year, the Critical Thinking Interest Group has been focusing its work on creating educational tools to foster the teaching of critical thinking in preclinical, clinical, and post graduate medical education. The group began its annual work by examining the literature describing cognitive biases. The group undertook a modified Delphi process to rank the most relevant cognitive biases from the extensive list of biases described in the literature. The group has been developing teaching cases that illustrate these biases, and hopes to develop them into a curriculum that can be used at the medical school and the affiliated hospitals. The group also sponsored a workshop on critical thinking and cognitive biases lead by Co-Chair Celeste Royce and member Kathleen Huth. Case studies and teaching materials from the workshop are available to Academy members on the website for use in teaching cognitive biases and critical thinking in their own teaching for the Pathways curriculum. In the coming year, the Group looks forward to developing more resources for faculty to incorporate concepts of critical thinking into the curriculum.

CHAIRS: Joseph Rhatigan, M.D.  
Celeste Royce, M.D.

MEMBERS: Keith Baker, M.D., Ph.D.  
Martin Kafina, M.D., F.A.C.P., F.A.C.R.  
Lisa Breen, M.D.  
Edward Krupat, Ph.D.  
David Brown, M.D.  
Darshan Mehta, M.D.  
Philip Chang, M.D.  
Cris Coconcea, M.D.  
James Philip, M.D.  
Thomas Deters, Ph.D.  
Celeste Royce, M.D.  
Leo Ginns, M.D.  
Richard Schwartzstein, M.D.  
Kristen Goodell, M.D.  
Richard Haspel, M.D., Ph.D.  
Robert Stanton, M.D.
The Cross-Cultural Care (CCC) Interest Group has a diverse, enthusiastic and experienced group of educators who share a passion for cross cultural care and health equity. We worked collaboratively with students and faculty so that our programs and efforts are aligned with ongoing campus initiatives. Members of our group assisted HMS Faculty in curricular redesign in order to integrate key concepts of cross cultural care, including sexual orientation/gender identity and social equity into the new curriculum starting with preclinical courses.

The CCC IG also hosted 2 faculty development workshops at HMS. The first led by Jason Fogler and Jennifer Kesselheim addressed The Hidden Curriculum, and the second, led by Lanny Smith and Leonor Fernandez dealt with Diversity as Quality in Medical Education. Both were very well attended and well received and sparked vibrant exchanges and deep reflections from participants. Finally, the CCC IG Co-Chairs represented HMS at a Harvard Faculty Retreat held at the end of March that was convened by the University to explore how Harvard is meeting its mandate to promote inclusive teaching.

**CHAIRS:**
- Alexander Green, M.D., M.P.H.
- Lidia Schapira, M.D.

**MEMBERS:**
- Christopher AhnAllen, Ph.D.
- Gyorgy Baffy, M.D., Ph.D.
- Rafael Campo, M.D.
- Martha Cesena, M.D.
- Philip Chang, M.D.
- Lena Dohlman, M.D., M.P.H.
- Evangeline Galvez, M.D.
- Barbara Gottlieb, M.D., M.P.H.
- Lisa Gruenberg, M.D.
- Cheryl Hamlin, M.D.
- Darshan Mehta, M.D.
- Valeria Pazo, M.D.
- Fernando Rodriguez-Villa, M.D.
- Christiana Russ, M.D.
- Fidencio Saldana, M.D., M.P.H.
- Clyde Smith, M.D., M.P.H.
- Augustus A. White III, M.D., Ph.D.
UPDATE: The Educational Technology Interest Group is focused on the addressing use of technology to enhance learning, and to support faculty teaching in classroom and clinical environments.

During 2015-2016, the goal of the Educational Technology Interest Group has been to identify technology needs and resources to support new curriculum initiatives. Meeting topics included:

- Best Practices for Integration of Technology into Medical Education.
- Integration of Technology into Flipped Classroom Teaching.
- The Use of Technology to Support ACGME Competency Goals.

The group is creating a compendium of HMS Education Technology Resources which will be available to HMS students and faculty.

Planned activities for 2016-2017 include two workshops: one on concept videos to support flipped classroom teaching, and another on use of Canvas and Oasis. Both will address conceptual and technical aspects. We plan to expand the focus of the Educational Technology Interest Group to include the use of technology for education and faculty support in clinical environments for medical students, as well as residents and fellows. We have generated a survey to expand the Technology Resource compendium to include education technology created by faculty, trainees and students throughout the Harvard Community. We will be sending the survey to Academy members to identify these resources, and thank you in advance for your help.

We welcome the suggestions of all Academy members for Educational Technology Group for topics, projects and activities. As HMS Academy and community members, we are shaping the future of medical education. We hope that through the Educational Technology Interest Group we can establish a core of individuals interested in speaking and publishing on best practices for use of technology throughout medical education. Please let us know if you are interested. We look forward to an exciting year.

Debra Weiner, M.D., Ph.D.
Katherine Andriole, Ph.D.
Puja Banka, M.D.
Robert Boland, M.D.
Jessica Brooks, M.D.
David Brown, M.D.
Scott Butsch, M.D.
Philip Chang, M.D.
Raffaella Colzani, M.D.
Jatin Dave, M.D., Ph.D.
Thomas Deters, Ph.D.
Tristan Gorrindo, M.D.
Jonathan Hausmann, M.D.
Simon Helfgott, M.D.

Praneeth Machettira M.D. MHA
Tanzeema Hossain, M.B., Ch.B.
B Price Kerfoot, M.D., Ed.M.
Cindy Ku, M.D.
Debra Leven, M.B.A., M.P.H.
Alexander McAdam, M.D., Ph.D.
Muthoka Mutinga, M.D.
J. Carl Pallais, M.D., M.P.H.
James Philip, M.D.
Roy Phitayakon, M.D., M.H.P.E.
Donna Polk, M.D., M.P.H.
Sonia Pujol, Ph.D.
David Roberts, M.D.
Sunil Sabharwal, M.D.
UPDATE: The Academy Feedback and Evaluation Interest Group had a number of activities this last year. At our last meeting, we reviewed ongoing projects and held a superb journal discussion focused on the impact of resident well-being and empathy on assessments of faculty physicians. This past year, we also saw the development of six new videos which featured various aspects of evaluation and feedback. These video were made by the MGH Internal Medicine Residents in conjunction with faculty input. Our goals for the 2016 fall sessions will be to review these six videos and decide how to create an effective interface for the faculty to view and use these videos. Finally, we would like to acknowledge the wonderful contribution of Gene Beresin, M.D. who has stepped down as co-leader of the Interest Group. We are actively interested in finding a new faculty member to collaborate with Keith Baker, M.D., Ph.D. as a co-leader of the Interest Group.

CHAIRS: Keith Baker, M.D., Ph.D.

MEMBERS: Terry Bard, D.D.
Lisa Breen, M.D.
David Brown, M.D.
Martha Cesena, M.D.
Chandlee Dickey, M.D.
Jason Fogler, Ph.D.
Evangeline Galvez, M.D.
Mary Ellen Goldhamer, M.D., M.P.H.
Tanzema Hossain, M.B.Ch.B.
Katherine Johnston, M.D., M.A., M.Sc.

Stephanie Jones, M.D.
John Mitchell, M.D.
Romesh Nalliah, D.D.S.
Donna Polk, M.D., M.P.H.
Subha Ramani, M.D.
Fernando Rodriguez-Villa, M.D.
Katherine Sparger, M.D.
James Stankiewicz, M.D.
Joseph Stoklosa, M.D.
David Topor, Ph.D., M.S.-H.P.Ed.
The Academy Hidden Curriculum Interest group remains committed to its primary goals:

- To understand the cultures and subcultures that impact learning and patient care at HMS.
- To promote positive culture change at HMS and affiliated institutions.

The group explores potential interactions between the ongoing curriculum reform at HMS and the hidden curriculum. The medical school is evolving, and we are committed to ongoing reflection about how planned changes may influence the hidden curriculum. During this academic year, we offered a Medical Education Day workshop entitled Giving voice to The “Silent” Curriculum: Race & Ethnic Relations, Cultural Sensitivity, and Explicit Reflection in Medical Education. Led by Jason Fogler and Alan Woolf, and facilitated with a panel of experts including Katie Brooks, a medical student author of the JAMA piece, The Silent Curriculum, the workshop explored the implicit biases we all bring to our interactions, as clinicians and as educators, and how to turn these into opportunities for learning and reflection. We then offered a related symposium in collaboration with the Academy Cross-Cultural Care Interest Group, expanding our focus from racial biases to one that also includes gender identity issues. We summarized these experiences in an Academy Insights report and plan to make these educational resources available more broadly throughout the HMS community and beyond via online tools and national conference presentations showcasing this curriculum.

To facilitate collaboration and highlight the work members are doing related to the hidden curriculum, as well as to humanism and professionalism education more broadly, we have created a new database. The group aims to have members outline their initiatives so that they may seek collaborators or mentors from the group’s membership. We use a portion of each of the meetings to allow members to share ideas, experiences and scholarship relevant to the hidden curriculum. Interest group meetings include discussion of members’ work, providing further opportunities for synergy and collaboration. Finally, we continue to welcome collaboration with other Academy Interest Groups whose aims are synergistic with our own. We anticipate that a joint meeting or project linking interest groups can help build momentum in the Academy in new ways, and look forward to exploring and amplifying shared interests with our colleagues. For example, this year we are scheduled to meet with the Academy Communication, Compassion, and Empathy Interest Group to discuss collaborative opportunities and explore joint programming for the Academy.

**CHAIRS:**

- Sigall Bell, M.D.
- Jennifer Kesselheim, M.D., M.Ed.

**MEMBERS:**

- Michael Cahalane, M.D.
- Rafael Campo, M.D.
- Jonathan Charnin, M.D.
- Jason Fogler, Ph.D.
- Elizabeth Gaufberg, M.D.
- Lisa Gruenberg, M.D.
- Darshan Mehta, M.D.
- J. Carl Pallais, M.D., M.P.H.
- Subha Ramani, M.D.
- Elizabeth Rider, M.S.W., M.D.
- Amy Ship, M.D.
- Katharine Treadway, M.D.
- Alan Woolf, M.D., M.P.H.
The Academy Mentoring Interest Group welcomed John Dalrymple, M.D. to join Carol Bates, M.D. as Co-Chair of the Interest Group. The group spent the year planning for its May 9, 2016 Symposium. The Symposium entitled *Advancing your Career Development as a Medical Educator* opened with a panel discussion, *Developing a Career in Medical Education*, facilitated by Richard Schwartzstein, M.D. Rebecca Berman, M.D., John Dalrymple, M.D., James Gordon, M.D. and Anjala Tess, M.D. Following the Panel Discussion, faculty attended one of the following workshops: *Promotion for Clinician Educators* (Carol Bates, M.D.); *Developing Networks: Mentors and Mentees* (S. Jean Emans, M.D.); *Building your Scholarship Portfolio* (Grace Huang, M.D., Lori Newman, Ed.M.) and *Formal Training Medical Education* (Colleen Monaghan, M.D.). The Symposium finished with a Small Group Networking Session with groups focused on: *Cultivating Leadership Opportunities in UME; Cultivating Leadership Opportunities in GME; Getting Promoted as an Educator and Advancing your Educational Scholarship*. The Symposium was very well attended and very well received.
The HMS Academy’s Peer Observation of Teaching Interest Group is co-chaired by Drs. Susan Burgin and Ayse Atasoylu. The group’s goals are to develop a culture of teaching improvement across HMS; provide individualized faculty development for those involved in teaching at the UME, GME, and CME levels; and generate community-wide conversations about best teaching practices.

To assist HMS with its efforts to cultivate use of interactive teaching strategies that foster active learning, the Interest Group during AY15 developed a peer observation of flipped classroom teaching worksheet and accompanying compendium, named “Case-based Collaborative Learning” (CBCL). During AY2015-16, our group focused on piloting the worksheet in flipped classrooms in the new Pathways curriculum. Thirteen teaching faculty in the IDD, Homeostasis I and II courses volunteered to have a peer observer from our group in their teaching session. Both peer observer and volunteer faculty gave structured feedback on the CBCL instrument. Optional feedback on teaching was also offered to teaching faculty. We are currently collating the feedback data on our worksheet, which will be shared in turn with our group members and then teaching faculty so as to achieve consensus on the final CBCL instrument.

Our goals for AY2016-17 are as follows:

• To publish the CBCL tool, guidelines for use, and pilot results as a means of sharing these broadly with the larger academic community.
• To train teaching faculty in the Pathways curriculum to be peer observers, and to be able to employ the CBCL tool as a guide in preparing their teaching sessions and in their peer observations.
• To partner with the student group interested in the new educational pedagogy to explore the identification of student behaviors that complement faculty behaviors and optimize the CBCL environment.
• To collaborate with the Academy evaluation and feedback interest group, continuing our discussions on how to incorporate the elements of CBCL in student and faculty evaluations.
• To help develop and contribute to a faculty development website which can house these tools as well as video clips that demonstrate both teacher and student behaviors that comprise a case based teaching and learning environment.

CHAIRS:
Ayse Atasoylu, M.D.
Susan Burgin, M.D.

MEMBERS:
Katharyn Meredith Atkins, M.D.
Daniel Kamin, M.D.
Dara Brodsky, M.D.
Cindy Ku, M.D.
Laurie Fishman, M.D.
Lori Newman, M.Ed.
Susan Frankl, M.D.
Nora Osman, M.D.
Kristen Goodell, M.D.
Valeria Paz, M.D.
Holly Gooding, M.D., M.Sc.
Alberto Puig, M.D., Ph.D.
Barbara Gottlieb, M.D., M.P.H.
David Roberts, M.D.
Lisa Gruenberg, M.D.
Anjala Tess, M.D.
Anita Gupta, M.D.
Ann-Marie Thomas, M.D.
Emily Hayden, M.D., M.H.P.E.
Kamen Vlassakov, M.D.
Tanzema Hossain, M.B.Ch.B.
The Resident as Teacher Interest Group provides guidance and inspiration to faculty and chief residents in creating formal curricula to help train residents and fellows as teachers.

During AY 16, the interest group:

(1) Presented a Symposium: Teaching and Learning in the Consultative Setting.
(2) Received IRB approval and began implementation of a survey of best-practices within Resident-as-Teacher programs of Harvard training programs (Brigham and Women’s Hospital, BIDMC, Cambridge Hospital, Children’s Hospital, Massachusetts General Hospital).
(3) Collaborated with the Student as Teacher group at Harvard Medical School on program planning.

In 2016-2017, the interest group plans to present a faculty development program on resident and fellow as teachers with a focus on leadership development.

CHAIRS:

Tracey Cho, M.D.
Hope Ricciotti, M.D.

MEMBERS:

Katharyn Meredith Atkins, M.D.
Susan Burgin, M.D.
Michael Cahalane, M.D.
Tracey Cho, M.D.
Caryn Dutton, M.D., M.S.
Lauren Fisher, D.O.
Ariel Frey-Vogel, M.D., M.A.T.
Evangeline Galvez, M.D.
Holly Gooding, M.D., M.Sc.
Natasha Johnson, M.D.
Tara Kent, M.D., M.S.

Holly Khachadoorian-Elia, M.D., M.B.A.
Jeffrey Kreher, M.D.
Cindy Ku, M.D.
Eli Miloslavsky, M.D.
Jakob McSparron, M.D.
Tom Sandora, M.D., M.P.H.
Cynthia Stein, M.D.
Robert Sundel, M.D.
Amy Weinstein, M.D., M.P.H.
Carey York-Best, M.D.
UPDATE:

The new Science of Learning Academy Interest Group brings together Academy members who are interested in learning and memory research in the healthcare professions, whether the teaching setting is the classroom, clinic, lecture hall, or wards. Members are engaged in conducting active research, translating the findings of such research to their teaching, or simply desire to learn more about the new discoveries in this rapidly progressing field.

The group has been quite active this year. Meeting monthly we have participated in many informative and thought-provoking presentations including:

- Using EEG event-related potentials as a physiologic marker of long-lasting learning;
- Current learning theory and applications
- Good teaching vs. good learning
- Using the four-questions technique to enhance learning
- Generating questions using a website to improve learning
- Using intention to change behavior and improve learning
- Positive instruction based upon positive psychology
- Does relationship science matter?
- Information transfer and skill acquisition in medical learning and teaching

In AY17, our plan is to begin by reviewing the major, evidenced-based learning techniques and associated topics, such as spaced learning, the testing effect, learning styles, learning through games, etc. We will then discuss how each technique could be applied to a range of educational venues (classroom, clinic, lecture hall, or wards). Each member will then develop a description of how one or more techniques could be (or has been) applied in their teaching setting. These written summaries will then be compiled into a web resource for all Academy members to use to improve their teaching.

CHAIRS:

Andrew Budson, M.D.

MEMBERS:

Philip Chang, M.D.  James Philip, M.D.
Kristen Goodell, M.D.  Roy Phitayakorn, M.D., MHPE
Lisa Gruenberg, M.D.  (MEd) FACS
Jonathan Hausmann, M.D.  Laura Rock, M.D.
John Livingstone, M.D.  Daniel Saddawi-Konefka, M.D., MBA
Scott Lovitch, M.D., Ph.D.  Stacy Smith, M.D.
Mohini Lutchman, Ph.D.  David Topor, Ph.D.
Lawrence Tsen, M.D.
The HMS Academy Simulation Interest Group serves as a resource to support simulation programming across the HMS community, and to provide a forum for collaboration across affiliated simulation centers.

During AY16, the Student Simulation Interest Group maintained biweekly “on-demand” educational sessions for a group of approximately 100 pre-clerkship students over the course of the year. These sessions also provided opportunities for senior students to develop as “teaching assistants” in support of simulation programming. In follow-up to last spring’s Dean’s Town Hall meeting, elective simulation/skills programming expanded with a new initiative to match interested pre-clerkship students with available faculty at hospital-based simulation centers; this effort was supported by an HMS Department of Surgery grant collaborative designed to facilitate interdisciplinary simulation/skills training for all students.

Following up on last spring’s dedicated faculty development seminar, new simulation modules were successfully piloted as part of the inaugural Homeostasis I and II course offerings. Interest group faculty also assisted the HMS Center for Evaluation in end-of-year simulation assessment exercises for preclinical students. Concluding the year, the Interest Group hosted an Academy Symposium on clinical assessment entitled “Modern Simulation: A New Frontier for Performance Assessment in Medicine.”

Into AY17, the Interest Group will continue to serve as resource to support the new Pathways curriculum, with particular emphasis on pre-clerkship course/faculty development, new clerkship offerings, and student interest group/teaching corps programming.

**CHAIRS:**
James Gordon, M.D., M.P.H.

**MEMBERS:**

Catherine Allan, M.D.
Puja Banka, M.D.
Jessica Brooks, M.D.
Argo Caminis, M.D., M.P.H.
Philip Chang, M.D.
Elizabeth Doherty, M.D.
Ariel Frey-Vogel, M.D., M.A.T.
Michael Fuenfer, M.D.
Emily Hayden, M.D., M.H.P.E.
Kimberlyn Leary, Ph.D., M.P.A.

Malcolm Mackenzie, M.D.
Jakob McSparron, M.D.
J. Carl Pallais, M.D., M.P.H.
James Philip, M.D.
Roy Phitayakorn, M.D., M.H.P.E. (MEd)
May Pian-Smith, M.D., M.S.
Charles Pozner, M.D.
Laura Rock, M.D.
Shannon Scott-Vernaglia, M.D.
Cynthia Stein, M.D.
UPDATE: The Writing for Scholarship Interest Group focuses on developing programs and resources to assist faculty in developing skills needed to write scholarly work for publication and promotion. Previously, the Interest Group authored *A Writer's Toolkit*, a resource to help young faculty members learn the nuances of scientific writing and the publication process. The May 2016 Summary Usage Report from MedEdPortal shows the Toolkit has been downloaded 333 times by 308 unique users in 32 countries.

In 2015-2016, our Interest Group held three seminars to further educate our members:

- Dr. Greg Curfman, Editor in Chief of Harvard Health Publications (HHP) discussed HHP’s activities. HHP is part of the HMS Office for External Education and its focus is writing about medical topics to educate the general public.
- Mr. Patrick Skerrett, writer for the new Boston Globe publication “STAT,” spoke about this new on-line section of the Globe, which is focused on the life sciences and hospitals in the Longwood Area.
- Dr. Julie Ingelfinger, Deputy Editor at NEJM, spoke about how to make videos on clinical topics.

Our plans for the 2016-2017 academic year are to develop additional tools to help faculty become better writers, develop a workshop for the Academy community, and continue Interest Group educational sessions.

CHAIRS: Jonathan Borus, M.D.  
Susana Pories M.D.

MEMBERS:  
Gyorgy Baffy, Ph.D., M.D.  
Terry Bard, D.D.  
Dara Brodskiy, M.D.  
Chandlee Dickey, M.D.  
Sara Fazio, M.D.  
Joseph Garfield, M.D.  
Julie Ingelfinger, M.D.  
Jean Klig, M.D.  
Stuart Quan, M.D.  
Subha Ramani, M.D.  
Sunil Sabharwal, M.D.
What is basic science?

biological principles/systems
disease processes
mechanisms of disease — therapeutic opportunities.

“basic” vs. “applied”
the “why” & “how” of clinical specialty-specific.
the constant?
explicit vs. implicit or
on the fly vs. prepared.
Richard M. Schwartzstein, M.D.
Director of the Academy

Dr. Richard M. Schwartzstein is the Ellen and Melvin Gordon Professor of Medicine and Medical Education. Since joining the HMS faculty in 1986, Dr. Schwartzstein has been a member of the division of pulmonary and critical care medicine at Beth Israel Hospital and now, Beth Israel Deaconess Medical Center (BIDMC). In addition to his clinical work and research on the physiology of dyspnea, Dr. Schwartzstein has devoted a substantial portion of his career to medical education. He has been course director for Integrated Human Physiology, one of the core courses in the first year curriculum, for 15 years and has served on multiple committees with oversight of the HMS program of studies. In 2004, he was named the vice president for education at BIDMC, where he created the first hospital-based Center for Education in the Harvard system.

Dr. Schwartzstein is also the executive director of the Carl J. Shapiro Institute for Education and Research at Harvard Medical School and Beth Israel Deaconess Medical Center. The Institute supports the Rabkin Fellowship in Medical Education, sponsors national conferences on key educational topics biannually, provides a range of professional development activities for physicians, and oversees the Shapiro Simulation and Skills Center. Dr. Schwartzstein has a particular interest in the cognitive processes underlying analytical reasoning and the strategies for teaching and assessing critical thinking. Additionally, he has served on the MR 5 Task Force of the Association of American Medical Colleges, which developed recommendations for revisions of the Medical College Admissions Test (MCAT). In AY 12, Dr. Schwartzstein chaired a strategic planning process for HMS’ Department of Continuing Education, and in AY 13 he assumed the role of chair of the Task Force on the Redesign of the Pre-Clerkship Curriculum. In the Pathways Curriculum, Dr. Schwartzstein will serve as director of the new Homeostasis 1 course.
Dr. David A. Hirsh graduated summa cum laude with a B.A. in History from Dartmouth College in 1988 and an M.D. from the University of Virginia in 1992. He is Associate Professor in Medicine at Harvard Medical School and Director and co-founder of the Harvard Medical School-Cambridge Integrated Clerkship. His scholarship and academic contributions span diverse areas including “educational continuity,” medical education transformation, longitudinal integrated clerkships, OSCEs, East Asian constructs of professionalism, and humanism in medicine. He has received local, national, and international honors for his teaching, academic work, clinical practice, and public service. With colleagues, he co-founded the international Consortium of Longitudinal Integrated Clerkships. He serves as a visiting professor of education and educational consultant nationally and internationally. He served from 1995-2009, as Medical Director of the City of Cambridge Healthcare for the Homeless Program. He continues to practice primary care women's health in Cambridge, to mentor student and faculty research, and to teach courses in all four years of the Harvard Medical School curriculum.

Dr. Barbara Cockrill is the Harold Amos Academy Associate Professor of Medicine, and Director of Faculty Development for the Academy. Dr. Cockrill is involved in education at HMS on many levels. Starting in July 2014, she has focused on faculty development in the Pathways Curriculum, and is a course director for the respiratory portion of the Homeostasis I course. For many years, in the New Pathway curriculum she has been General Director of the HMS Human Systems course; Course Director of Integration Week; Vice Chair of the Fundamentals of Medicine Committee (Years 1 and 2); and member of the Curriculum Executive Committee and Student Assessment Committee. Dr. Cockrill is a pulmonologist with a special focus on women’s lung and pulmonary vascular disease. She has an active clinical practice and is leader of the Task force on Pregnancy in Pulmonary Hypertension for the Pulmonary Vascular Research Institute—an international group dedicated to pulmonary vascular disease care and research.
Amy M. Sullivan, Ed.D.
Associate Director of Education Research

Dr. Amy M. Sullivan is Assistant Professor of Medicine at Harvard Medical School, and Director for Medical Education Research at the HMS Academy and the Shapiro Institute for Education and Research at Beth Israel Deaconess Medical Center. Dr. Sullivan is a research psychologist with expertise in research in medical education and psychosocial oncology and palliative care. She currently serves as a member of the leadership committee of the National Academies Collaborative Steering Committee. Dr. Sullivan earned her bachelor’s degree in Natural Sciences at the Johns Hopkins University, a master’s degree in Counseling Psychology at Rutgers University, a doctorate in Human Development and Psychology at the Harvard University Graduate School of Education, and completed a visiting faculty research fellowship at Oxford University. She is co-author, with Carol Gilligan and Jill McLean Taylor, of a book on adolescent girls’ development entitled Between Voice and Silence: Women and Girls, Race and Relationship. At HMS, Dr. Sullivan is currently involved in research related to the curriculum reform efforts, a study of best practices in teaching critical thinking to medical trainees, and other research. Dr. Sullivan directs the Academy Fellowship in Medical Education Research, and recently initiated the Communication, Compassion, and Empathy IG.

Lisa Frontado, M.S., Ed.M.
Manager of Academy Programs

Lisa Frontado is the Manager of Academy Programs. She manages the development, implementation and evaluation of Academy Faculty Development Programs, Interest Groups, and Membership. She joined the Academy after having spent nine years at Harvard Graduate School of Education’s Project Zero, a think tank focusing on the enhancement of learning and thinking skills in the humanistic and scientific disciplines. While at HGSE, Lisa was also part of the Learning Innovation Laboratory, a consortium of researchers and practitioners who considered the challenges of human learning and innovation in organizations focused on scientific development, engineering, national defense, and aviation. Lisa’s interests lie in the development of thinking skills, reasoning attitudes, problem solving and decision-making in complex environments. Lisa is bilingual in English and Spanish. She holds a B.A. in International Relations from Mount Holyoke College, an M.S. in Mass Communications from Boston University’s College of Communication and an Ed.M. from Harvard Graduate School of Education.
**Gilianne Jawahir**  
*Program Coordinator*

Gilianne Jawahir is the Program Coordinator at the Academy. She coordinates logistics for all Academy Faculty Development Programs. She also coordinates logistics for the Academy Fellowship Programs. Gilianne started at the Academy after graduating from Smith College, class of ’13. She graduated with a B.A in neuroscience and minor in anthropology. While attending college, she worked as an assistant teacher in Harlem, New York where she taught reading and mathematics skills to elementary level students. She also held positions in NYU’s Bobst Library and Smith College’s Neilson Library. Gilianne’s interests lie in both medicine and public health-management. She hopes to get her master’s in public health with a focus in hospital administration.

**Katheryn Jackson**  
*Program Assistant*

Katheryne Jackson is the Program Assistant at the Academy. She organizes faculty development sessions for *Pathways* the new curriculum program. She also assembles the layout of the Academy monthly newsletter, Insights and she processes all tutor recognition certificates and awards. She started at the Academy late February of this year after fulfilling a Fulbright Teaching Fellowship in Brazil. During her time in Brazil she worked closely with Brazilian college students who were working on becoming English teachers. Before embarking on that adventure Katheryne graduated from Smith College, class of 13’. She graduated with a B.A. in Psychology and a minor in Portuguese and Latin American Studies. Katheryne is currently taking classes in the Harvard Extension School and hopes to earn a Master’s in Psychology.
Susan E. Frankl, M.D.
Assistant Professor of Medicine, Beth Israel Deaconess Medical Center

Dr. Susan Frankl, a community-based general internist, graduated from SUNY, Binghamton, and Stanford Medical School, and trained in internal medicine at University of Washington and Brigham & Women’s Hospital. Dr. Frankl is Deputy Director, Primary Care Clerkship, and a member of the Generalist Education and Faculty Development Leadership Group of the Association of Professors of Medicine and the Teaching for Tomorrow Initiative at U Mass Medical School. She is also involved in faculty development initiatives for ambulatory preceptors, and precepts medical students in her primary care practice. She has been a Harvard-Macy Scholar and a Rabkin Fellow in Medical Education.

James A. Gordon, M.D., M.P.A.
Professor of Medicine, Massachusetts General Hospital

Dr. James Gordon graduated from Princeton, the University of Virginia Medical School, and the University of Michigan School of Public Policy. He trained in emergency medicine at the University of Michigan Medical Center, where he also completed a fellowship in the Robert Wood Johnson Clinical Scholars Program. As Director of the HMS Program in Medical Simulation, he leads a team that provides immersive clinical simulation exercises in medical school courses across the curriculum. He has served as a Morgan-Zinsser Fellow and a Harvard-Macy Scholar, and directs a Fellowship in Medical Simulation. At MGH he is director of the hospital’s Learning Laboratory and serves as chief of the Division of Medical Simulation in the Department of Emergency Medicine.

Michael J. Parker, M.D.
Assistant Professor of Medicine, Beth Israel Deaconess Medical Center

A physician in the Division of Pulmonary, Critical Care, and Sleep Medicine at Beth Israel Deaconess Medical Center, Dr. Parker is an Assistant Professor of Medicine at HMS and was formerly the senior interactive media architect in the HMS Center for Educational Technology. Dr. Parker received Bachelor’s and Master’s degrees in Electrical Engineering and Computer Science from MIT. Before becoming a physician, he worked in the software industry and then studied exercise physiology at University of Colorado while performing biomechanical analysis of U.S. team cyclists at the Olympic Training Center. He went to medical school at the University of Colorado and returned to Boston for internal medicine residency at Brigham and Women’s Hospital. A former Rabkin Dr. Parker is an accomplished teacher, combining his computer science and medical knowledge to create animations and simulations that enhance the teaching and learning of complex medical concepts.
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