

The Academy at Harvard Medical School The Academy Center for Teaching and Learning Annual Report 2009-2010



Richard Schwartzstein, MD Director, Academy at Harvard Medical School Ellen and Melvin Gordon Professor of Medicine and Medical Education

Academic year 2010 was one of change and growth for the HMS Academy. With the assistance of an advisory council drawn from each of the major HMS affiliates and guadbased departments, a new mission statement crafted and new criteria were was established for Academy membership. Our goals were to make the Academy more responsive to the needs of the faculty, to increase our engagement with physicians whose teaching focuses primarily on residents and fellows in graduate medical education, and to link our work more closely with the priorities of the Program in Medical Education at HMS.

This year, we also enhanced our efforts in support of educational innovation and medical education research. With collaboration across many of our hospital sites, we conducted a two-day course that served as a primer on medical education research, and began a national search to fill a new position, associate director for research, in the Academy. As we grow our infrastructure in support of education research, we hope to leverage resources across the HMS hospitals to enhance collaboration in support of scholarly work centered on educational innovation.

Over 150 faculty members applied for membership in the Academy this year. The criteria for membership were revised to emphasize leadership at both the UME and GME levels. In addition, new requirements to participate in Academy activities were instituted for members; it is our firm belief that the Academy can succeed only if its members play active roles in the planning and implementation of its programs.

Our new Academy members will also be interfacing with growing hospital-based academies and education centers. Recognizing that our clinical faculty members often cannot make it to the quad for professional development activities, we are working with educational leaders at each of the HMS core affiliates to develop programming and support structures to complement what we do centrally. These evolving education centers are open to junior faculty and, in many cases, to residents and fellows who aspire to become better teachers and to have careers as medical educators.

Finally, the Academy is playing an important role in the preparations for the medical school's Liaison Committee on Medical Education (LCME) accreditation visit, scheduled for March, 2011. The LCME has long recognized the importance of faculty development as a key component to a successful medical school. The HMS Academy hopes to continue to grow and develop to meet the challenges of healthcare in the years to come.



Charles J. Hatem, MD Director, Center for Teaching and Learning Harold Amos Academy Professor of Medicine

The Academy Center for Teaching and Learning (ACTL) offers, in this current annual report, a review of educational faculty development efforts to enhance teaching skills and student learning at HMS. Ongoing programs for quad-based and hospital faculty provide direct consultation and feedback for those who teach as tutors, lecturers and small group discussion facilitators, as bedside teachers, peer coaches and teachers of cross-cultural care. Along with these offerings, the ACTL has presented a rich program of monthly Medical Education Grand Rounds covering a wide spectrum of topics devoted to a better understanding of the challenges in medical education. The ACTL continues to offer its annual Spring neuroscience symposium, this past year dealing with lessons from the world of cognitive psychology and their application to teaching. The Academy's web site provides streaming video access to many of its programs which can be accessed at http://hms.harvard.edu/pme/academy.asp. The Academy Fellowship in Medical Education continues on its successful course, made possible by the reality of the Curtis Morgan-Zinsser Prout, and Iackson Academy Fellowships.

None of these efforts, of course, could exist without the commitment and skill of the members of the ACTL, and various faculty consultants who bring their particular talents in consultation and program development to a variety of relevant educational needs of HMS. Importantly, we benefit from an ongoing dialogue with the Center for Evaluation under the leadership of Dr. Ed Krupat. Throughout its various programs, the ACTL remains committed in its mission to support teaching and learning at HMS, an indispensable ingredient in effective educational program functioning and success.

New Initiatives

In AY 2009-2010 the Academy created several new programs to address a variety of desires and interests among HMS faculty members: a desire for community in which one might share a passion for teaching and educational scholarship; an interest in developing skills in educational research as well as in teaching; and a desire to contribute to educational programs at HMS.

To support an ever growing interest in educational research, the Academy, in collaboration with the Center for Evaluation, offered a short course in research methods (two half-days) in the fall and followed up with several smaller workshops on specific methods (e.g., survey design). In an effort to enhance our infrastructure to support faculty interested in pursuing formal investigations of educational theory and practice, the Academy also created the position of Associate Director for Educational Research, which will be filled in fall 2010.

To foster communication about education innovations, research, and "best practices" across HMS affiliated institutions, the Academy created a new series, The Harvard Inter-hospital Collaborative. Education Scholars from Beth Israel-Deaconess Medical Center, Massachusetts General Hospital, Brigham-Women's Hospital, Cambridge Health Alliance and Mt. Auburn Hospital, Hospital sequentially and Children's presented reports on their research and new programs at highly interactive two-hour sessions. These meetings alerted the community to the range of topics under investigation and pilot projects being pursued. However, to gain even greater cross-talk, the format of the 2010-2011 series will change; each session will include presentations from two institutions, rather than one, and efforts will be made to coordinate the focus of the presentations.

As part of its ongoing efforts to support the Program in Medical Education, the Academy directed a task force on classroom teaching.

Composed of Academy staff as well as Fundamentals of Medicine course directors, the task force met throughout the year to explore best practices in large and small group teaching and to propose modifications to current programs and educational strategies. In addition, with the recruitment of new Academy membership and a redefinition of the role of Academy members, "interest" groups formed and began to design curricular and pedagogical materials, as well as professional development sessions to support teachers and teaching at HMS and its affiliated institutions. The foci of these interest groups are: critical thinking, feedback and evaluation, simulation, writing for scholarship, education technology, team based learning, peer review, the resident as teacher and the hidden curriculum.

Academy Membership

The Academy was established to advance the education of physicians and scientists throughout the Harvard Medical School community through the following means:

Creating and supporting a community of leaders in education and a culture of excellence in teaching and learning.
Fostering the careers of educators in medicine and science.

• Providing programming to improve the skills of teachers.

Stimulating and supporting the creation and implementation of innovative approaches to learning and assessment.
Supporting educational research and scholarship in medical and graduate education.

In addition to sustaining and building upon the work of the Center for Teaching and Learning, the professional development arm of The Academy, we will now be working more 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 hope to 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.

Academy Interest Groups

At our membership meeting in March, 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."

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. The groups are as follows:

- Peer Review
- Team Based Learning
- Writing for Scholarship
- Feedback and Evaluation
- Education Technology
- Resident as Teacher
- Simulation
- Critical Thinking
- The Hidden Curriculum

We expect that these groups will meet every 4-6 weeks, with a first meeting before the end of academic year '10 and then starting up again in September. Among the outcomes of the discussions may be one or more of the following:

- Ideas for medical education grand rounds
- Proposals for special faculty development sessions of the Academy

- Proposals for changes in or development of new curricula or assessment procedures.
- Outreach to junior faculty in the hospital-based academies and centers for education.
- Journal clubs focused on their topic.

Interest Group Leaders

Peer Review

Susan Frankl, MD – Co-chair Lori Newman, EdM – Co-chair

Team Based Learning

Alexander McAdam, MD PhD - Chair

Writing for Scholarship

Jonathan Borus, MD - Co-chair Susan Pories, MD FACS - Co-chair

Feedback and Evaluation

Jonathan Alpert, MD PhD - Co-chair Eugene Beresin, MD - Co-chair

Educational Technology

Michael Parker, MD – Chair Debra Weiner, MD PhD – Co-chair

Resident as Teacher

Tracey Cho, MD MA - Co-chair Hope Ricciotti, MD - Co-chair

Simulation

James Gordon, MD MPH - Chair

Critical Thinking

Edward Krupat, PhD - Co-chair Richard Schwartzstein, MD - Co-chair

Hidden Curriculum

Co Chair - Sigall Bell MD Co Chair - Elizabeth Gaufberg MD MPH

Medical Education Research & Innovation

Educational Research Methods

November 13, 2009 / November 20, 2009 Graham McMahon, MD

This two-day afternoon course was designed for faculty who are interested in turning their current educational work into publishable experiments, or in initiating new educational research projects. Utilizing an interactive format, we worked through hypothesis generation, selection of appropriate study populations, and design of educational interventions. Individual participants brought their own work (ongoing or contemplated) to use as the basis for discussion. We then examined different trial designs used in educational experiments and considered their strengths and limitations. The next phase of the program focused on the choice of a measurable outcome, and examined basic tenets of survey design and test creation. We briefly looked at qualitative research methods and then discussed how to navigate the institutional review board approval process. An overview of analysis techniques was provided. Resources at HMS to support educational experimentation were reviewed. Participants had the opportunity to engage with experienced faculty and with each other in a peer-review and Q&A format.

Task Force on Classroom Learning

As part of the ongoing work of the Program in Medical Education to improve the teaching and learning of medical students, the Academy convened and directed a taskforce, comprising many of the course directors in the Fundamentals of Medicine portion of the curriculum along with key educators and Academy staff, to examine the pedagogical goals and principles that should apply to teaching in a range of settings. The group, which has been meeting monthly for the past 6 months, is elaborating a set of recommendations that will encompass specific strategies to enhance long-term memory of content and analytical skills to problem facilitate solving, explicit expectations of students and faculty with regard to their preparation for education sessions, and modifications of the physical plant at HMS to provide greater flexibility to meet the educational needs of the 21st century.

Major Events

Medical Education Day

The Role of Performance Assessment in the Development of a Physician

October 27, 2009

The Academy at Harvard Medical School and the Program in Medical Education sponsored the eighth annual Harvard Medical Education Day on October 27, 2009 in the Joseph B. Martin Conference Center. All HMS faculty were invited to attend and were eligible to participate in Medical Education Day. The day featured poster and technology presentations of both completed projects in works-inprogress related to the education of medical students, house staff, or faculty in the areas of curriculum development, assessment, faculty development, education research, or use of technology to enhance education. The afternoon also featured workshops/seminars, a plenary session with presentations from faculty and a keynote address.

Kevnote: Ready Fly: Evaluating to Competence Aviation: А Cross in Professional Look at Performance Assessment, Captain Calvin Augustin, USAF Lt. Colonel, Flight Instructor, FAA Examiner, **Retired** Captain

Workshops: Assessment Tools, *Ed Krupat PhD & Susan Farrell MD EdM*

Medical Knowledge in the Application of Patient Care, *Richard Schwartzstein MD & Lisa Breen MD* Teaching and Evaluating Humanistic Competencies in Physicians, *Susan Block MD*

The Role of the Hidden Curriculum inPhysicianProfessionalDevelopment,Elizabeth GaufbergMDMD

Plenary:FacultyDevelopmentforEvaluatingProfessionalism,YvonneSteinert, PhD, McGill University

Symposium on the Science of Learning

This year's symposium addressed a topic of immediate importance to HMS teaching faculty: namely, how to maximize learning through lectures. Whether learners are present in the lecture hall or view videotaped lectures remotely, they rely upon aural and visual senses to receive information. Drawing upon research in both cognitive psychology and the neurosciences, the speakers described how adults process visual information and explored with the audience implications for effective lecturing. Presentations were given by David Kraemer, PhD and Stephen Kosslyn, PhD.

Programs

Academy Center for Teaching and Learning The Academy Center for Teaching and Learning (ACTL) at the Harvard Medical School was established in 2006, 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.

We believe that the central moral responsibility of medical education is the improvement of the health of the society. Toward that end, 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.

Grand Rounds

Medical Education Grand Rounds comprise a series of one-hour monthly sessions, open to all HMS faculty, that are held throughout the year.

Memorization or Understanding: Are we teaching the right thing?

September 25, 2009

Eric Mazur, PhD, Balkanski Professor of Physics and Applied Physics, Harvard University

Education is more than just transfer of information, yet that is what is mostly done in large introductory courses -instructors present material (even though this material might be readily available in printed form) to students for whom the main purpose of lectures is to take down as many notes as they can. Few students have the ability, motivation, and discipline to synthesize all the information delivered to them. Yet synthesis is perhaps the most important -- and most elusive -- aspect of education. This event showed how shifting the focus in lectures from delivering information to synthesizing information greatly improves the learning that takes place in the classroom.

Strategies for Effective Teaching and Learning

December 4, 2009

Charlie Hatem, MD, Director of the Center for Teaching and Learning, Harvard Medical School

This discussion focused on an approach to teaching strategies that are designed to engage learners and enhance their learning. The session was interactive and solicited comments from the audience as to their experiences with the strategies presented.

Scientific Foundations for Future Physicians: Report of the AAMC-HHMI Committee

February 5, 2010

Jules Dienstag, MD, Dean for Medical Education

As a component of the HMS Medical Education Reform Initiative, a Working Group on Admissions Requirements considered the way college preparation for medical school should change to meet the needs of our 21st Century medical school curriculum. In their 2004 report, this recommended working group that students enter medical school with a more relevant rigorous and more science preparation, and encouraged colleges to design cross-disciplinary courses that would facilitate the achievement of this end. The impetus for such change has been recognized medical schools. at undergraduate colleges, and by national organizations. In 2009, a Howard Hughes Medical Institute (HHMI)-Association of American Medical Colleges (AAMC) committee issued a report, Scientific Foundations for Future Physicians, in which similar themes were endorsed, including greater focus on the scientific competencies required rather than on that specific premedical courses traditionally defined entry requirements. We reviewed the impact of these recommendations on HMS admissions and present examples of approaches taken by colleges to fulfill these recommendations.

Great Expectations: How our expectations of medical students influence their professional development (for better or worse)

April 30, 2010

Edward Hundert, MD, Senior Lecturer in Medical Ethics, Harvard Medical School

Most medical students are not only bright, hard-working, and motivated, but also highly expectation-sensitive. If our admissions process selects for one trait above all, it pulls for talented young people who excel at picking up on the expectations of teachers and meeting those expectations. While some attention has been given to how our expectations as influence medical faculty students' academic development in courses and clerkships, much less attention has been paid to how our expectations affect their personal development in terms of specialty extracurricular choice. activities, or professional behavior. Much is written about the "hidden" or "informal" curriculum among students and residents. This session reflected on Dr. Hundert's experience as Associate Dean for Student Affairs for seven years at HMS and provoked discussion about the disparate influences of our hidden curriculum (as facultv and administrators) on our students' professional development.

Tutor Development

Fostering Critical Thinking in Basic Science Learning

September 9, 2009

Toni Peters, PhD and Robert Stanton, MD

The facilitators presented a brief overview of research on critical thinking as it relates to basic science learning, and asked participants to describe their experiences with students' critical thinking during classroom exercises. Together the group constructed a list of approaches faculty might take to encourage students to think critically. Each participant developed one method s/he might use immediately while teaching.

Introduction to Tutorial for Prospective Tutors

September 16, 2009 / January 13, 2010 Sam Kennedy, PhD This was small group session for faculty interested in serving as a tutor in HMS courses. This session introduced the cognitive basis underlying tutorial-based learning and presented strategies for success, specific to the Harvard Medical School use of that format. This session also allowed opportunities for questions of interest or concern from the participants.

How Learning Occurs in Small Groups

September 21, 2009 / April 2, 2010

Toni Peters, PhD

Small group process tends to follow a predictable pattern in which participants move from lower to higher order cognitive tasks and move through phases of positive social interaction. and negative Understanding this process helps tutors and others who facilitate small group learning to manage their groups. In this workshop, faculty viewed a videotape of an HMS tutorial and characterized students' behaviors, and then related those behaviors to what they know about adult learning.

Learning Theory

October 7, 2009

Toni Peters, PhD

Participants explored principles of learning and then related them to medical education. Prior to workshop, the participants read an article that describes how a resident learns to insert a central line (a skill). At the workshop, they observed a videotape of a baby learning to walk (a skill). Based on their observations of the tape and their reading, they identified ways in which learning is exhibited by the individual and supported by the teacher and colleagues. They discussed how practice, feedback, verbal learning and reflection help learners develop deeper knowledge, skills, and attitudes.

Enhancing Feedback during Clinical Teaching

October 14, 2009

Susan Frankl, MD

After a quick review of the principles of effective feedback, participants described incidents when they have struggled to provide feedback, and then together identified why feedback is difficult, what barriers inhibit effective feedback, and strategies to overcome those barriers. Opportunity to practice holding feedback conversations and peer coaching on feedback were provided.

Enhancing Feedback in Tutorial

October 21, 2009 / April 14, 2010 Toni Peters, PhD

This workshop focused on differentiating between approaches to in-group (public) and one-on-one (private) feedback, and feedback about cognitive deficits versus professional behavior. Tutors identified strategies and developed skills through discussion and role play.

Teaching and Learning in the Laboratory Setting

November 3, 2009

Bernard Chang, MD MMSC

This workshop examined concerns that students express about learning in the laboratory setting. As a group, participants examined the challenges posed by the laboratory setting and constructed strategies aimed at enhancing teaching and learning in the laboratory setting.

Microtutoring-I: Managing Difficult Groups (Quiet or Domineering Students)

December 7, 2009 / February 17, 2010

Toni Peters, PhD

This two-part workshop focused on skills and strategies needed to handle difficult group process. Microtutoring-I dealt with the challenges of managing the quiet as well as the dominating student. During the workshop, participants rotated the roles of tutor and problem student. After each scenario, the group debriefed and collectively generated strategies to manage such groups effectively.

Microtutoring-II: Managing Difficult Groups (Unprepared students; Integrating Biomedical and Social Sciences)

December 9, 2009 / February 22, 2010

Toni Peters, PhD

This workshop focused on skills and strategies needed to handle difficult group Microtutoring-II process. dealt with unprepared groups and superficial or unidimensional discussions (e.g., an inability to integrate biomedical and psychosocial, cultural, or economic issues). During the workshop, participants rotated the role of tutor. After each scenario, the group debriefed and collectively generated strategies to manage such groups effectively.

Survey Research

December 14, 2009 / May 12, 2010 Toni Peters, PhD This workshop addressed basic skills in survey research: establishing the research question and constructing items to answer that question; identifying assumptions that lead to bias; selecting answer options and scales; measuring attitudes versus behaviors with surveys. Participants drafted surveys and received feedback on their items.

Advanced Technologies in Medical Education: The Theory and Practice of Immersive Clinical Simulation

February 26, 2010

James Gordon, MD

The core emotional experience of doctoring is one of the most powerful forces in anchoring, integrating, and reinforcing medical learning. A process like medical simulation that can safely recreate such an emotional response promises remarkable pedagogical benefits. This presentation explored a unifying theory of cognitive and emotional learning that broadens the view of what is possible, feasible, and desirable with simulation-based medical education.

Using Cooperative, Competitive, or Individual Learning Structures

March 22, 2010

Toni Peters, PhD

Medical students have demonstrated strength in individual learning throughout their education. Many also competed successfully both academically and in other endeavors such as music and sports. Yet, medicine is a social endeavor that requires clinical teamwork, scholarly collaboration and negotiation with patients. Each approach - cooperation, competition, and individualism - has a place in medical education. This workshop helped faculty to understand the cognitive and affective advantages and disadvantages to each structure, and practiced designing instructional activities to enhance the benefits of each one.

Program Evaluation: How to Know if Your Education Project Succeeded

April 16, 2010

Susan Farrell, MD EdM

The goals of this session were to provide a brief overview of program evaluation, with a focus on the Kirkpatrick and the WKKF Outcomes Logic models. Methods for assessing the formative and summative outcomes of programs were compared based on the purposes of the evaluation, the feasibility of evaluation methods, and the intended program outcomes.

Peer Observation and Coaching

April 21, 2010

Toni Peters, PhD

In this workshop, faculty identified the features of good teaching related to a format of interest to them (e.g., lecturing, bedside teaching, small group facilitation), and then collaborated on drafting a guideline or instrument to assist in performing a structured observation. They observed a videotaped segment of teaching, rated it using the instrument they constructed, and discussed how to coach a colleague productively. The group considered ways to triangulate data from students' evaluations, peer observations, self-assessment, and reflection.

Inter-Hospital Collaborative

IHC - Beth Israel Deaconess Medical Center

December 16, 2009

The aim of this session was to share a selection of BIDMC's educational initiatives, answer questions on the development and implementation of these projects, and identify inter-hospital educational research opportunities. During this first collaborative meeting, BIDMC reported on: Establishment of a procedural curriculum including development of the rating checklist (report by Dr. Christopher Smith and Dr. Grace Huang), the process of determining precise rating standards for the peer observation of medical lectures (Dr. Lori Newman), survey of surgical faculty on best operating room teaching practices (Dr. Charles Vollmer), and establishment of a new pathology elective for third-year students (Dr. Richard Haspel).

IHC - Children's Hospital Boston

January 27, 2010

Debra Weiner, MD PhD presented "CHB Shared Multidisciplinary, Multimedia Linked Electronic Libraries"; Jennifer Kesselheim, MD, and Kate Garvey, MD, presented "Fostering Humanism and Professionalism in Pediatric Residency Training"; Peter Weinstock, MD PhD, presented "The Simulation Program at CHB"; and Elizabeth A. Rider, MD MSW, presented "Enhancing Faculty Teaching of Communication Skills: a Model for Relational Learning."

IHC - Brigham and Women's Hospital

March 10, 2010

Graham McMahon MBBCH and Mary presented Thorndike "Effect of а Residency Redesign Initiative on Patientlevel outcomes"; Mary Thorndike and Eliazbeth Breen MD presented "Interdisciplinary faculty observation to improve teaching quality"; Sarah Peyre EdD and Charles Pozner MD presented "Simulation Research and BWH"; and Graham McMahon MB BCH presented "A comparison of video and text-based cases on students cognition in tutorial."

IHC - Massachusetts General Hospital

April 28, 2010

"Is There Negative Pedagogic Bias in Psychiatric Medical Education? An International Quantitative and Qualitative Analysis and Suggested Plan of Action" was presented bv Steve Schlozman, MD. James Gordon MD MPA presented "Does Simulator-Based Clinical Performance Correlate with Actual Hospital Behavior? The Effect of Extended Work Hours on Patient Care Provided by Medical Interns." Alberto Puig MD PhD FACP presented "Residents as Teachers: A Clinician Educator Elective at MGH." Shirley Wray, MD PhD presented "Technology Assisted Learning: Enabling Neurodiagnostic Teaching (TALENT)."

IHC - Cambridge Health Alliance

May 5, 2010

The aim of this session was to share a selection of CHA's educational initiatives, answer questions on the development and implementation of these projects, and identify inter-hospital educational research opportunities. During this first

collaborative meeting, CHA reported on the Cambridge integrated clerkship. The .history of the program was reviewed along with data relating to student outcomes. The program included panel discussions that revealed faculty and student views on the program.

Academy Fellowships

The Academy at Harvard Medical School announced a Request for Applications for one-year fellowships in medical education for the period of July 1, 2009 to June 30, 2010. Fellowships provide physician educators with dedicated time to pursue a scholarly project in medical education. In addition to receiving support provided from Academy resources, fellows benefit from funding provided by grants provided by several benefactors:

The Jackson Academy Fellowship (interest: teaching and mentoring) is named for Dr. James H. "Jimmy" Jackson, MD, HMS '43, through the generous gift of his wife of 57 years, Mrs. Susan M. Jackson.

The Curtis Prout Academy Fellowship (interest: primary care) is named for Dr. Curtis Prout, HMS '41, through the generous gifts of his past and present patients, colleagues, family and friends.

The Morgan-Zinsser Fellowship (interest: early career development of junior faculty) is named for Dr. Herbert Morgan, HMS '42, and his mentor, Dr. Hans Zinsser, through the generous gift of Dr. Herbert Morgan.

The Fellows met monthly with **Dr. Charles Hatem** and **Dr. Beth Lown** to review the Fellowship Curriculum. The Academy Fellows also convened with their colleagues in the Rabkin and Mt. Auburn Fellowships for a course in the basic elements of research in medical education under the guidance of Dr. Nicholas Christakis, Professor of Medical Sociology in the Department of Health Care Policy, at Harvard University.

Academy Fellows 2009-2010



Emma Eggleston, MD MPH

Curtis Prout Fellow of the Academy

Harvard Pilgrim Health Care, Ambulatory Care & Prevention

"Statistical Analysis Software as a Teaching Tool: Development of a Collaborative Curriculum."

Mentor - Jonathan Finkelstein, MD



Anupama Seshan, PhD

Morgan-Zinsser Fellow of the Academy Harvard Medical School, Cell Biology

"Identifying Predictors of

Success in IN751.0" Mentor – Randall King, MD PhD



Sunil Sabharwal, MD Curtis Prout Fellow of the Academy VA Boston Healthcare

System, Physical Medicine & Rehabilitation

"Integrated Cases for the Pre-Clinical Curriculum." Mentor – David Cardozo, PhD



Marc de Moya, MD Jackson Fellow of the Academy Massachusetts General Hospital, Surgery

"Impact of Core

Clerkship Simulation on Medical Decision-Making." Mentor – James Gordon, MD



Jan Pruszak, MD *Morgan-Zinsser Fellow of the Academy* McLean Hospital, Neuroscience

"A Primer on the Nervous System – A Model for Integrated Teaching of a Functional System in Basic Human Anatomy Courses." Mentor – Daniel Goodenough, PhD

Academy Fellows 2010-2011



W. Scott Butsch, MD MS *Curtis Prout Fellow of the Academy* Massachusetts General Hospital, Medicine

"Incorporating Clinical Nutrition into HMS curriculum." Mentor – Allan Walker MD



Lara Kothari, MD Morgan-Zinsser Fellow of the Academy Children's Hospital, Pediatrics

"Simulation as a Tool for the Assessment of Critical Thinking" Mentor – Peter Weinstock MD



Eva Chittenden, MD *Curtis Prout Fellow of the Academy* Massachusetts General Hospital, Medicine

"Palliative Care Education in Medicine Residency: A Competency-based Approach." Mentor – Susan Block MD



Katharine Treadway, MD *Curtis Prout Fellow of the Academy* Massachusetts General Hospital, Medicine

"Capstone Course." Mentor – Jules Dienstag MD

Resident as Teacher Program 2009-2010

The HMS Academy Center for Teaching and Learning was pleased to announce a new faculty development effort directed at faculty responsible for resident-as-teacher programs within the HMS hospitals. Residents have long been appreciated as vital and central teachers of HMS students in the clinical arenas, and in recent years, there has been an expansion of programs directed at assisting residents to acquire teaching skills relevant to their roles as clinical faculty. The Resident-as-Teacher Faculty Development Program was directed at refining the skills of those directing resident-as-teacher programs.

The Program consisted of monthly 2-hour seminars held at the HMS Academy Center for Teaching and Learning. The seminars were facilitated by Charles Hatem, MD, Director for the CTL, and invited faculty. The curriculum drew, in part, upon materials used in Medical Education Fellowships that have been conducted over the previous decade. Importantly, the selected participants met to define their own educational needs and assist in the definition of the program material. The overall goals of the program were directed at an examination of literature useful in the education of residents to effectively function in their role as teachers. The sessions were one Friday a month, from 9-11 AM. There were 10 sessions held throughout the Calendar Year (January-December), beginning in January 2010 with required assigned reading for each seminar. Participants were offered a stipend of \$250 for each session attended.

A maximum of 10 positions was offered, to

enable 2 faculty members from each of the major HMS affiliates to participate in the program. It is our expectation that these individuals will serve as local resources and assist faculty from other departments in their institutions to develop and improve Resident as Teacher Programs.

Resident as Teacher Participants

Tracey Cho, MD, MA

Instructor, HMS Massachusetts General Hospital

Ariel Frey, MD

Instructor of Pediatrics, HMS Massachusetts General Hospital

Amanda Growdon, MD Instructor of Pediatrics, HMS Children's Hospital Boston

Richard Haspel, MD, PhD

Instructor in Pathology, HMS Beth Israel Deaconess Medical Center

Vivian Mitchell, MD

Instructor in Medicine, HMS Brigham and Women's Hospital

Dennis Simon, MD

Chief Resident, CH Children's Hospital Boston

Mary Thorndike, MD

Instructor in Medicine, HMS Brigham and Women's Hospital

Pamela Vohra, MD

Instructor in Medicine, HMS Beth Israel Deaconess Medical Center

2009-2010 ACTL Accomplishments and Activities

In addition to offering a range of programs, the ACTL addressed three major themes in 2009-2010: educational scholarship, lecturing, and community building among HMS faculty.

Educational scholarship. With ever increasing educational interest in scholarship, both through innovative teaching and evaluation of such programs, the ACTL, in collaboration with the Center for Evaluation, has initiated several approaches to supporting this endeavor. Over the past few years, members of both centers have reviewed proposals for educational research that faculty members have submitted to the IRB. The goals have been two-fold: (a) to monitor research to insure that medical students are not oversurveyed, and to identify the range of studies on-going at the school; and (b) to offer advice on research design. In 2009, we determined that the need for consultation on research design was so great that faculty might benefit from a short course on educational research methods. Therefore, two half-days were devoted to such a course in the fall semester. Additionally, follow up workshops on survey design and program evaluation, along with consultations with individual researchers, have supported faculty members' research.

In the coming year, new members of the Academy, faculty consultants, and the activities of a new Academy associate director for educational research (TBA) will strengthen and broaden support for educational scholarship.

Lecturing. As described in earlier reports, there has been on-going discussion at HMS about the value of lecturing and the variability of student attendance at lectures. Since many students watch videotaped

lectures, it behooved us to identify means of presenting lectures effectively for both inclass learning and remote access. The ACTL responded to this challenge several ways. First, in collaboration with the Program in Medical Education, a task force composed of ACTL and Academy staff and course directors met to develop a report on large and small group classroom teaching and learning. The task force determined that active learning was central to the HMS educational philosophy, will and be recommending guidelines for course directors and faculty development for lecturers to ensure this core value can be maintained in lectures.

Second, the Symposium on the Science of Learning (as described later in this report) focused on visual processing of material as presented in lectures. In addition, one Medical Education Grand Rounds was dedicated to the topic of effective lecturing. The Academy Interest Group on Critical Thinking will continue work on this topic next year.

Community building. The ACTL recognizes that it is desirable to build community both across and within all HMS affiliated institutions. Therefore, it offers Quad-based activities such as workshops, symposia, Medical Education Day, and Medical Education Grand Rounds. But, it has also built a resource-rich web-site where faculty may find materials to support their own faculty development initiatives within each institution. These include, for example, workshop designs that faculty may use as a springboard for local activities. Additionally, members of the ACTL, along with faculty consultants, leave the Quad to offer - or to collaborate on - events within the affiliated institutions.

A recent initiative is the Inter-hospital Medical Education Collaborative, which offers a series of sessions in which educational scholars from each institution present their work – whether an educational innovation or research – to faculty from other institutions. Through these presentations and ensuing discussions, faculty with similar interests can identify possible collaborators or mentors.

Pathways to Success: Career Development as a Clinician Educator

October 2, 2009

Shapiro Institute, BIDMC

Developing a strategic plan for career development in the early years of faculty life is a critical step in the process of establishing a fruitful career in academic medicine. The goals of this half-day retreat were to identify the professional development requirements and strategies faculty need to distinguish themselves as clinician educators and further their career on local, regional, and national levels. Leaders of the session characterized the opportunities and challenges that exist for clinician educators. Through presentations, small group dialogue, and Q&A sessions, participants learned successful ways to negotiate the new HMS promotion process, develop a teaching portfolio, participate in medical education professional development, and engage in educational scholarship. The retreat concluded with a report from the HMS Center for Teaching and Learning on findings from their recent faculty development needs assessment and a discussion of career development resources available to the HMS community.

<u>Academy Staff</u> <u>Members</u>



Richard Schwartzstein MD, 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 is course director for Integrated Human Physiology, one of the core courses in the first year curriculum, 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 hospitalbased 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 Skills and Center. Dr. Schwartzstein has a particular interest in the cognitive processes underlying analytical reasoning and the strategies for teaching and assessing critical thinking.



Charles J. Hatem, MD, Director of the Center for Teaching and Learning

Dr. Charles Hatem is

the Harold Amos Professor of Medicine at Harvard Medical School, and Director of Medical Education at Mount Auburn Hospital. Since 1971, Dr. Hatem's work at Mt. Auburn has involved adult primary care and the development of new medical programs with teaching education responsibilities aimed at students, house staff, fellows and faculty. Dr. Hatem has been involved in establishing the Rabkin Fellowship in Medical Education 1998, and is currently co- teaching with Dr. Beth Lown in the Mount Auburn and Academy Fellowships in Medical Education which are devoted to providing faculty skills needed in the world of the clinicianteacher.



Antoinette S. Peters, PhD, Associate Director of the Center for Teaching and Learning

Dr. Toni Peters is

an educational psychologist and associate professor of Ambulatory Care & Prevention. expertise Her lies in curriculum development, faculty development, and program evaluation in medical education. She is particularly

interested in small group teaching and learning, and the relationship between instructional design and learning outcomes. Dr. Peters is an advisor for firstyear students who elect the Casebook Project.



Suzanna Shorey, Program Assistant

Suzanna is the Program Assistant within the Academy Center for

Teaching and Learning. Suzanna handles all ACTL program registration for HMS faculty members. She also provides faculty members with detailed information about our different programs and assists in event operations. She has a BA in History from the University of Massachusetts Amherst and is now studying for an MS in Higher Education Administration.



Lisa Frontado, MS, EdM, Manager of Academy Programs

Lisa's interests lie in the development, management, and evaluation of teaching and learning environments. In particular, she is interested in the development of critical thinking skills, reasoning attitudes, problem solving and decision-making in complex environments. She holds an MS from Boston University and an EdM from Harvard Graduate School of Education.



Crystal Chang, Program Coordinator

Crystal is the Program Coordinator and manages the continuing Medical Education (CME) application and reporting process and coordinates documentation requirements for CME courses provided by the Academy and other departments at HMS.

Faculty Consultants

Each year, the Academy provides funding for a small number of "faculty consultants" who provide assistance on specific areas of the curriculum and/or faculty development.



Susan Farrell, MD, EdM Faculty Consultant for Assessment

Dr. Susan Farrell graduated from Syracuse University and Tufts

School of Medicine and trained in emergency medicine and medical toxicology at Medical College of Pennsylvania. She is Director of Student Programs and the Emergency Medicine Clerkship at BWH, and Course Co-Director, Emergency Medical Care, at HMS. Dr. Farrell created and writes "TOX TALKS," a case-based toxicology newsletter. She teaches in numerous courses at HMS, including an emergency medicine elective for 1st-year students, "Beyond Shadowing." She participates in the Mentor/Mentee Program, Harvard Affiliated Emergency Medicine Residency, and has been a Macy Scholar and Rabkin Fellow in Medical Education.



Susan Frankl, MD Faculty Consultant for Clinical Teaching

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 Gordon, MD MPA Faculty Consultant for Simulation

Dr. James Gordon graduated from Princeton, University of Virginia Medical School, and University of Michigan School of Public Policy and trained in emergency medicine at University of Michigan Medical Center. As Director of the Program in Medical Simulation for medical students at the HMS quadrangle, he helps design and precepts simulation exercises for numerous HMS courses, including IHP, Human Systems, Pt/Dr II and III, Transition to the Wards, and the surgery and emergency medicine clerkships. He has completed the Harvard Macy Physician Educator and Leadership Programs. In 2001, he was awarded a Morgan-Zinsser Fellowship in the Academy at HMS.



Alexander Green, MD MPH Faculty Consultant for Cross-Cultural Education

Dr. Green is Associate Director at the Disparities

Solutions Center at Massachusetts General Hospital and lecturer at Harvard Medical School. He has authored multiple articles and is a frequent speaker on topics including cross-cultural education, culturally competent health care systems, and language barriers and interpreters. Dr. Green has been involved in a variety of research projects on racial/ethnic disparities in health, and cultural competence; his research has been funded by RWJF, The Commonwealth Fund, NIH, and HCFA (now CMS). He helped produce a documentary film and education project, "Worlds Apart," designed to teach health professionals to better care for patients across cultural divides.



Sam Kennedy, PhD Faculty Consultant for new tutor training

Dr. Kennedy, Lecturer on Cell Biology at Harvard Medical

School, has taught as a lecturer and served as a tutor in the HMS Human Body course for more than 20 years, and over that time has served as lecturer in several other HMS anatomy and pharmacology courses. As a faculty member in the New Pathway curriculum, Dr. Kennedy has led sessions as a new tutor trainer for over 15 years and, more recently, has served as a peer observer of faculty in tutorials.

Auburn Hospital. Dr. Lown is Medical Director of the Kenneth B. Schwartz Center. Dr. Lown has a strong interest in interpersonal and communication skills, and teaches a relationship-centered approach to the psychosocial and emotional aspects of healthcare to learners across the continuum of medical education. She served on the National Board of Medical Examiners' Task Force on Communication Skills, Committee for Standard Setting, and currently serves on the Case Materials Development for Clinical Skills Step 2 of the United States Medical Licensing Examination. Dr. Lown collaborates with national and international partners in teaching and research in healthcare communication and medical education. She has used mixed methods of research including qualitative and emergent research methods to inform education including curricular design, assessment instruments, and learner and program evaluation.



Beth Lown, MD

Co-Director, Academy Fellowships in Medical Education

Beth Lown, a general internist, graduated the Tufts University

School of Medicine, and completed her postgraduate training at the Beth Israel Hospital. She is Co-Director of the Harvard Academy Fellowships in Medical Education and Director of Faculty Development and Faculty Fellowships in Medical Education at Mount

Academy Members

Membership Criteria & Responsibilities

- Evidence of Educational Leadership: Individuals who hold positions of leadership in education, or are actively engaged in educational scholarship, related to medical and/or graduate students at Harvard Medical School (HMS), and/or residents and fellows at HMS affiliated hospitals are eligible to apply.
- Commitment to participate (as a learner or instructor) in a minimum of 12 hours of educational *development* sessions each year. Such sessions will include those sessions for which continuing medical education (CME) credit is granted (by HMS or another institution), and sessions designated as meeting this requirement by HMS, hospital or graduate school education leadership (examples include: medical education grand rounds, workshops and seminars offered by the Academy at HMS and the hospitals, as well as courses devoted to education topics such as Harvard-Macy programs and the Shapiro Institute CME course on teaching skills).
- <u>Commitment to participate</u> in three of six major *Academy events* every two years.

Members must also commit to participate and be involved in Academy Committees and activities as appropriate.

Erik Alexander, MD Medicine Brigham and Women's Hospital

Jonathan Alpert, MD PhD Psychiatry

Massachusetts General Hospital

Katherine Andriole, PhD

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Terry Bard, DD

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Sean Kelly, MD Emergency Medicine Beth Israel Deaconess Medical Center

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Howard Libman, MD Medicine Beth Israel Deaconess Medical Center

Leonard Lilly, MD Medicine Brigham and Women's Hospital

Clifford Lo, MD MPH ScD Pediatrics Children's Hospital Boston

Beth Lown, MD Medicine Mt. Auburn Hospital

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Debra Weinstein, MD Internal Medicine, GI Massachusetts General Hospital Brigham and Women's Hospital

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Augustus White, MD PhD Culturally Competent Care Education Beth Israel Deaconess Medical Center **Beverly Woo, MD** Medicine Brigham and Women's Hospital

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Julius Yang, MD PhD Medicine Beth Israel Deaconess Medical Center

Stephen Zinner, MD Medicine Mt. Auburn Hospital

Academy Interest Group Members

Peer Review

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Team Based Learning

Alexander McAdam MD PhD - Chair Clifford Lo, MD MPH MSc Melissa Mattison, MD Amelie Rorty, PhD Helen Shields, MD Kamen Vlassakov, MD Shirley Wray, MD PhD FRCP

Writing for Scholarship Jonathan Borus, MD – Co Chair Susan Pories, MD FACS – Co Chair Terry Bard, DD Dara Brodsky, MD Michele Burns-Ewald, MD Jonathan Fisher, MD MPH Joseph Garfield, MD Vicki Jackson, MD MPH May Pian-Smith, MD MS Stuart Quan, MD Hope Ricciotti, MD Steven Schwaitzberg, MD Priscilla Slanetz, MD MPH

Feedback and Evaluation

Jonathan Alpert, MD PhD - Co Chair Eugene Beresin, MD MA - Co Chair Keith Baker, MD PhD Terry Bard, DD Jonathan Borus, MD Joseph Garfield, MD Melanie Hoenig, MD Vicki Jackson, MD MPH Kate Johnston, MD MA M.Sc Stephanie Jones, MD Jennifer Kesselheim, M.Ed MD MBioethics Ed Krupat, PhD Graham McMahon, MD MMSc Russell Nauta, MD Sarah Peyre, EdD David Topor, PhD

Educational Technology

Michael Parker, MD - Co Chair Debra Weiner, MD PhD - Co Chair Katherine Andriole, PhD Ayse Atasoylu, MD MPH Matthew Carty, MD Joel Katz, MD MA B. Price Kerfoot, MD EdM Bernard Kinane, MD BCh BAO Randall King, MD PhD Leonard Lilly, MD Priscilla Slanetz, MD MPH

Resident as Teacher

Tracey Cho, MD MA – Co Chair Hope Ricciotti, MD – Co Chair Angela Botts, MD Vincent Chiang, MD Colleen Monaghan, MD Alberto Puig, MD PhD James Takayesu, MD MS Ann-Marie Thomas, MD

Simulation

James Gordon MD MPA - Chair Stanley Ashley, MD Debra Boyer, MD Calvin Brown, MD Steve Dawson, MD Marc de Moya, MD Alice Flaherty, MD PhD Dan Jones, MD MS Joshua Nagler, MD Sarah Peyre, EdD May Pian-Smith, MD MS Charles Pozner, MD Amelie Rorty, PhD Douglas Smink, MD MPH Peter Weinstock, MD PhD

Critical Thinking

Edward Krupat PhD - Co Chair Richard Schwartzstein MD - Co Chair Ayse Atasoylu, MD MPH Keith Baker, MD PhD Jon Borus, MD Thomas Byrne, MD Vincent Chiang, MD Vincent Chiang, MD Marc de Moya, MD Anne Fabiny, MD Jon Fox, MD Jon Fox, MD Joseph Garfield, MD Arundhati Ghosh, MBBS FRCS FACS Leo Ginns, MD Stuart Goldman, MD Barbara Gottlieb, MD MPH Lisa Gruenberg, MD Richard Haspel, MD PhD Grace Huang, MD Julie Irish, PhD Bernard Kinane, MD BCh BAO Slyvia McKean, MD Joseph Rhatigan, MD Leon Sanchez, MD MPH Lidia Schapira, MD Robert Stanton, MD Alan Woolf, MD MPH

Hidden Curriculum

Sigall Bell MD - Co Chair Elizabeth Gaufberg MD - Co Chair Zeina Chemali, MD MPH Lisa Frontado, MS EdM Edward Hundert, MD Jennifer Kesselheim, MD MEd MBioethics Ed Krupat, PhD Toni Peters, PhD Laurie Raymond, MD Hope Ricciotti, MD Elizabeth Rider, MD MSW Amy Ship, MD Priscilla Slanetz, MD MPH

Faculty Participation in Academy Programs

By Degree

391 - MD
39 - PhD
22 - MD/PhD
6 – MB/BCH
4-MB/BS
4 - MD/MB/BS
3 – PsyD
3 – EdM
2 – BA
2 – BS
2 - DO
2 – DVM
2 – EdD
2 – MA
1 - DD
1 - DDS
1 - DPM
1 - MB
1 - MB/BCH/BAO
1 - MD/DMD
1 - MD/JD
1 – MD/ScD
1 – MEd
1 – MS
1 - MSW/MA
1 - PhD/DDS
1 - PhD/MB/BCH
1 - ScD

By Academic Title

166 - Instructor

- 111 Assistant Professor
- 51 Clinical Instructor
- 45 Associate Professor
- 36 Professor
- 29 Clinical Fellow
- 19 Research Fellow
- 14 Lecturer
- 10 Assistant Clinical Professor
- 9 Associate Clinical Professor
- 2 Clinical Professor
- 2 Teaching Associate
- 1 Curriculum Fellow
- 1 Research Associate

By Institution

- 1 Hebrew Rehab Center for the Aged
- 1 Massachusetts Institute of Technology

- 1 Massachusetts Mental Health Center
- 1 New England Baptist Hospital

By Department

- 86 Medicine, BIDMC
- 77 Medicine, Brigham & Women's
- 57 Medicine, Mass General Hospital
- 39 Pediatrics, Children's Hospital
- 23 Population Medicine
- 14 Pathology
- 13 Pediatrics, Mass General Hospital
- 12 Surgery, BIDMC
- 10 Anesthesia, Brigham and Women's
- 10 Anesthesia, Mass General Hospital
- 10 Psychiatry, Cambridge Hospital
- 10 Psychiatry, Mass General Hospital
- 10 Psychiatry, McLean Hospital
- 9 PME Curriculum Support, HMS
- 7 Neurology, Mass General Hospital
- 7 Obstetrics, Gyno, & Repro, BIDMC
- 7 Psychiatry, Brigham and Women's
- 6 Anesthesia, BIDMC
- 6 Global Health and Social Medicine
- 6 Obstetrics, Gyno, & Repro, BWH
- 6 Ophthalmology
- 6 Psychiatry, BIDMC
- 6 Surgery, Brigham and Women's
- 5 Radiology, BIDMC
- 5 Surgery, Mass General Hospital
- 4 Anesthesia, Children's Hospital
- 4 Cell Biology
- 4 Obstetrics, Gyno, & Repro, MGH
- 4 Orthopedic Surgery, BIDMC
- 4 PME Educational Development, HMS
- 3 Bio Chemistry & Molecular

Pharmacology

- 3 Neurology, BIDMC
- 3 Neurology, Brigham and Women's
- 3 Orthopedic Surgery, MGH
- 3 Otology and Laryngology
- 3 Physical Medicine and Rehabilitation
- 3 Walter Bradford Cannon Society, HMS
- 3 Radiology, Brigham and Women's
- 2 Genetics
- 2 PME Student Affairs, HMS
- 2 Psychiatry, Children's Hospital
- 2 Health Policy and Management, HSPH
- 1 Alumni Bulletin, HMS
- 1 Armenise Harvard Foundation
- 1 Countway Library of Medicine
- 1 Dermatology Brigham and Women's
- 1 Faculty Affairs, HMS
- 1 Health Sciences and Technology
- 1 Faculty Group Practice, HSDM
- 1 Oral Health Policy & Epidemiology, HSDM
- 1 IT e-computing, HMS
- 1 Microbiology & Molecular Genetics
- 1 Neurology, HMS
- 1 Orthopedic Surgery, BWH
- 1 PME Medical Education, HMS
- 1 Psychiatry, BOVAMC
- 1 Radiation Oncology, BWH DFCI CH
- 1 Radiation Oncology, MGH
- 1 Radiology, Children's Hospital
- 1 Radiology, Mass General Hospital
- 1 Resource Development, HMS
- 1 Environmental Health, HSPH
- 1 Environmental and Occupational
- Medicine & Epidemiology, HSPH
- 1 Surgery, Children's Hospital
- 1 University Health Services, Harvard
- 1 VA, Huntington Ave