



Everett Anderson, the James Stillman professor of comparative anatomy, emeritus (third from left), shares a laugh with students.



New Appointments

PHYSICIAN—HUMANITARIAN IS NEW GLOBAL HEALTH CHAIR

Paul Farmer, the Maude and Lillian Presley professor of global health and social medicine at HMS, was named chair of the Department of Global Health and Social Medicine in July 2009. He succeeded Jim Yong Kim, now president of Dartmouth College.

"Few have done more to improve health in developing countries than Paul," said Dean Jeffrey Flier. "His scholarship and international work have made him one of the world's most respected global health experts." While still a medical student at HMS, Farmer co-founded Partners In Health, a nonprofit organization that delivers healthcare to impoverished regions of the world. Today, PIH serves millions of people in ten countries, including the United States. As rural Haiti's largest healthcare provider for more than 25 years, PIH is playing a major role in aiding the country's recovery from the devastating earthquake that struck in January 2010.

Farmer, who also holds a PhD in anthropology from Harvard, writes extensively on health and human rights and on the impact of social inequalities on health. His many awards include the Carter Award for Humanitarian Contributions to the Health of Humankind, from the National Foundation for Infectious Diseases; the Margaret Mead Award, from the American Anthropological Association; and the Outstanding International Physician (Nathan Davis) Award, from the American Medical Association. Farmer received a "genius" grant from the John D. and Catherine T. MacArthur Foundation in 1993.

BOARD OF FELLOWS WELCOMES NEW MEMBERS

The Board of Fellows welcomed three new members in 2009. As supporters of HMS and advisers to the School's leaders, members bring intelligence, creative thinking and commitment to their roles.

Phill Gross is the co-founder and managing director of Adage Capital Management, based in Boston. Adage manages assets for foundations as well as endowments, including those for Harvard University. Previously, Gross spent 18 years at the Harvard Management Company.

Jeffrey Leerink in 1995 founded the first independent healthcare research firm, Leerink Swann, now widely regarded as the premier healthcare investment bank. The firm serves institutional and life-sciences clients and has earned "Best of the Boutiques" honors from *Institutional Investor* magazine for the last seven years.

Ansbert Gadick, a member of the HMS Systems Biology Council, is the founding general partner of MPM Capital, which invests globally in innovation in the life sciences and healthcare.



Jack Szostak (left) is the 15th HMS faculty member to win the Nobel Prize.

Honors and Awards

NOBEL PRIZE HONORS HMS PROFESSOR JACK SZOSTAK

Jack Szostak received the 2009 Nobel Prize in Physiology or Medicine, along with Elizabeth Blackburn and Carol Greider, for the discovery of how chromosomes are protected by telomeres and the enzyme telomerase. Research by Szostak, a professor of genetics and member of the Department of Genetics at HMS and the Department of Molecular Biology at Massachusetts General

Hospital, showcases the fundamental importance of basic science and how it can open up new fields of investigation.

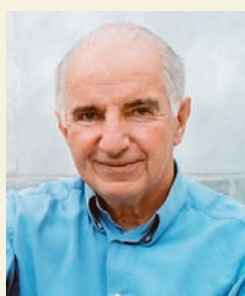
Szostak's prize-winning work focused on the stability of chromosomes in yeast cells. With Blackburn, he demonstrated that nucleotide sequences at the ends of chromosomes of one species could protect chromosomes of a distant species. As Szostak recognized, this implied the existence of an entirely new enzymatic activity that served to protect the ends of chromosomes from degradation. This discovery, cited by the Nobel committee, has impacted scientists' understanding of aging and led to potential treatments for cancer and other diseases.





NINE FROM HMS ELECTED TO INSTITUTE OF MEDICINE

Nine HMS faculty members are among the 65 new appointees to the Institute of Medicine (IOM), the health arm of the National Academy of Sciences. The IOM is an independent, nonprofit organization that provides unbiased advice to decision makers and the public on healthcare issues and national health policy. The nine are:



Alfred Goldberg, professor of cell biology, HMS: Goldberg's laboratory studies the importance of protein

breakdown to the body's immune defenses; the reasons this process kicks into high gear in cancer and certain other disease states; and strategies for controlling this destruction.

Daniel Haber, Kurt J. Isselbacher/Peter D. Schwartz professor of medicine at Massachusetts General



Hospital (MGH): Haber and his colleagues study the genetics of cancer. In addition to characterizing tumor-suppressor genes implicated in breast cancer and Wilms tumor, they aim to identify somatic mutations linked to drug susceptibility in lung cancer. Haber, a Howard Hughes Medical Institute investigator, directs the MGH Cancer Center.



Isaac Kohane, Lawrence J. Henderson professor of pediatrics, Children's Hospital Boston, and associate professor of

medicine, Brigham and Women's Hospital: Kohane leads collaborations at HMS and its affiliated hospitals that use genomics and computer science to study cancer and brain development, with an emphasis on autism. His work has led to the creation of cryptographic health identification systems, automated personal health records and peer-to-peer pathology information networks.

Joan Reede, dean for diversity and community partnership, HMS: Reede oversees programs designed to increase the



number of minority faculty, physicians and scientists in postgraduate medical education at HMS and its 17 affiliated institutions. She has established model programs to develop minority faculty that emphasize mentoring and leadership and that draw outstanding underrepresented minority students into the pipeline.



Gary Ruvkun, professor of genetics, MGH: Ruvkun played a pivotal role in the discovery of microRNAs. Currently investigating

longevity and fat storage, he has shown that the nematode *C. elegans* controls its

metabolism and longevity through an insulin-signaling pathway, and that insulin signaling in the nervous system is key to lifespan.

Clifford Saper, James Jackson Putnam professor of neurology, Beth Israel Deaconess Medical Center: Saper's laboratory focuses on



integrated functions maintained by the hypothalamus, including the regulation of wake-sleep cycles, body temperature and feeding. The lab's goals are to identify the neuronal circuitry that helps regulate these responses and to discover how certain neurological and psychiatric disorders disrupt these responses in the human brain.



Megan Sykes, Harold and Ellen Danser professor of surgery and professor of medicine, MGH: Sykes's research aims to use

blood or bone marrow transplantation as immunotherapy to achieve graft-versus-tumor effects while avoiding rejection. Her lab is investigating clinically feasible, nontoxic methods of re-educating T cell, B cell and natural killer cell components of the immune system to accept transplants from the same or different species without long-term anti-rejection therapy.

Bruce Walker, professor of medicine, MGH: Walker studies the cellular immune response to human viral pathogens, particularly HIV-1 and hepatitis C viruses. His focus is on the immune control of acute viral infections, viral





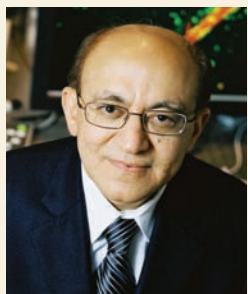
of HIV—people who succeed in living well without medication.

Ralph Weissleder, professor of radiology, MGH: Weissleder studies in vivo molecular imaging, which has led to

such novel technologies as magnetic nanoparticles for MRI and enzyme-activatable probes for the detection of early cancers by laparoscopy and other minimally invasive techniques. He is currently investigating the use of molecular libraries and screens as well as nanomaterials and exploring ways of imaging and tracking cell populations in vivo, especially stem cells.

ANOTHER LAUREL FOR CANCER SCIENTIST

Rakesh Jain, the A. Werk Cook professor of radiation oncology (tumor biology) at MGH, was elected to the National Academy of Sciences (NAS). Jain is the first from the HMS faculty



evolution under immune selection pressure, antigen processing and immunodominance, and “elite controllers”



of Engineering. Jain studies tumor pathophysiology using innovative imaging techniques. His lab showed that angiogenesis-inhibiting drugs repair the leaky, disorganized blood vessels of tumors and reduce edema in the brains of mice with glioblastoma as well.

SYSTEMS BIOLOGIST HONORED AS UNIVERSITY PROFESSOR

Harvard University President Drew Gilpin Faust named HMS researcher **Marc Kirschner** a University Professor,

Harvard's highest professorial distinction. The University Professorship, created in 1935, honors “individuals of distinction ... working on the frontiers of knowledge, and in such a way as to cross the conventional boundaries of the specialties.”

Kirschner, the Carl W. Walter professor of systems biology and founding chair of that department at HMS, was appointed to the John Franklin Enders University Professorship.

Kirschner is a pioneer in studying the evolutionary origins of the vertebrate body plan, in particular the chordate nervous system. His laboratory studies the frog embryo as a model system of cell development, watching how it orchestrates numerous signals to create a final, complex organism. Understanding cell morphogenesis is vital to understanding normal cell development and cell regeneration; it also sheds light on cancer.

Among many other honors, Kirschner received the Gairdner Foundation's International Award in 2001.



Alumna Yvette Roubideaux directs the U.S. Indian Health Service.

ALUMNA DIRECTS INDIAN HEALTH SERVICE

President Barack Obama nominated HMS alumna Yvette Roubideaux to direct the Indian Health Service (IHS). She was confirmed in May. A member of the Rosebud Sioux tribe, she is the first woman to lead the IHS. After graduating from HMS and earning an MPH from the Harvard School of Public Health, Roubideaux completed the primary care internal medicine residency program at Brigham and Women's Hospital. She is a former fellow of the Commonwealth Fund/Harvard University Fellowship in Minority Health Policy and has devoted her professional life to improving quality of care for American Indians and Alaska Natives. Most recently she was an assistant professor in the Department of Family and Community Medicine at the University of Arizona College of Medicine. Her research has focused on diabetes in American Indians and Alaska Natives and on American Indian health policy.



Carol Nadelson has steered an unusual course in academic medicine.

LEADER OF WOMEN IN MEDICINE RECEIVES RENAISSANCE WOMAN AWARD

Carol Nadelson, HMS professor of psychiatry at Brigham and Women's Hospital, accepted the Foundation for the History of Women in Medicine's 2009 Alma Dea Morani, MD, Renaissance Woman Award in a ceremony at Countway Library in October. The award honors an outstanding woman physician or scientist in North America who has furthered the practice and understanding of medicine and made significant contributions outside of medicine.

Nadelson pioneered work in women's health and mental health; dedicated herself to the education and mentoring of students, physicians and the public; and provided inspirational leadership in psychiatry and medicine. She has steered an unusual course in academic medicine, devoting herself to innovative and evolving areas of investigation, clinical understanding and education. Her work

has left an indelible mark on patients and generations of students and colleagues.

GLOBAL HEALTH CHAIR BECOMES UNITED NATIONS ENVOY

Former President Bill Clinton, the United Nations special envoy to Haiti, has appointed HMS professor **Paul Farmer** to serve as his deputy. As deputy special envoy to Haiti, Farmer will help the UN and Clinton advance the Caribbean nation's economic and social development. He will retain his position as the Maude and Lillian Presley professor of global health and social medicine and head of that department at HMS.

Farmer is a cofounder of Partners In Health, the largest healthcare provider in Haiti. PIH operates a multiservice healthcare clinic in Cange that includes a primary school, surgery wing, outreach training program, 104-bed hospital and 12 medical facilities across Haiti's Central Plateau and Artibonite regions.

MICROBIOLOGIST—ACTIVIST RECEIVES NATIONAL AND INTERNATIONAL AWARDS

Jonathan Beckwith, the American Cancer Society professor of microbiology and molecular genetics at HMS, received two prestigious awards: from the National Academy of Sciences, the 2009 Selman A. Waksman Award in Microbiology for excellence in that field; and, from the Edinburgh International Science Festival and the City of Edinburgh Council, the 21st Annual Edinburgh Medal, for significant contributions to the understanding and well-being of humanity.

Beckwith, who led the first team to isolate a gene from the chromosome of a living organism, is being honored for his work in gene regulation, protein targeting and secretion, disulfide biochemistry and the development of gene fusions as an experimental tool. He is a vigorous critic of the notion that crime, poverty and other social problems are rooted in genes rather than culture and environment.



HMS professor Paul Farmer checks in on patients at Rwinkwavu Hospital in Rwanda, run by Partners In Health and the country's Ministry of Health.

