Mentor Profile

Kathryn T. Hall

At first glance Kathryn Hall’s career appears eclectic — from a PhD in microbiology and molecular genetics to an MA in visual media arts to a period as CEO of a film company and a four-year training program in complementary and alternative medicine. But to Hall, it is a focused journey to a better understanding of the underpinnings of our health, from the molecular to the social to the spiritual.

After spending several years in the biopharmaceutical industry, then documentary film-making, she returned to academia, where she is currently doing research in the Gastroenterology Division at Beth Israel Deaconess Medical Center (BIDMC). The current focus of her work is the biological basis of the placebo effect.

Hall earned a PhD in microbiology and molecular genetics from Harvard University in 1994 and did post-doctoral research at the Dana-Farber Cancer Institute. While at Harvard, she attended her first Biomedical Science Careers Student Conference, in 1994. She became a BSCP mentor while doing her post-doctoral work, and served as an advisor or panelist at five conferences.

Hall’s first biopharmaceutical job was at Genetics Institute (now Wyeth), where she did research in large-scale molecular biology screening to clone genes of secreted proteins. As the biotechnology industry shifted from large-scale genomics to drug manufacturing, she explains, she made that shift, moving to Millennium Pharmaceuticals.

While she was working in industry, Hall was also on the board of the Boston Rape Crisis Center. In 2004 this non-profit organization needed a video to present its message on the traumatic effects of sexual violence. Hall, who says she had experimented with her own video camera, partnered with a friend who worked in public television at the time to create the short film. She became so involved in the process that she decided to learn how to make documentaries, with an eye, she explains, toward “impacting community health.”

She enrolled in the visual media arts program at Emerson College, earning an MA. With her background in biopharmaceuticals, Hall wanted to look at the intersection between community and medicine. “What emerged was that HIV is such a big problem for African Americans, even in a place like Massachusetts,” she says. Her keystone work at Emerson was a documentary about HIV in the African-American community titled Deliver Us. The main message in this film is the necessity for people at risk for infection, and the community at large, to participate actively in their own preventative solutions.

This led Hall to create “Project Deliverus,” a series of workshops in which she showed the film to young people in Boston communities of color, brought in physicians to talk to them about HIV and allowed the kids to make their own media messages. She raised funds from pharmaceutical companies for the project.

“As I came around the bend with Deliver Us, I started to think about what I wanted to do next,” she says. And she founded a film company. “In one year we created 10 videos for the non-profit community, focusing on domestic workers, victim advocacy issues...
2010 HOPE SCHOLARSHIP RECIPIENTS

AT THE 13TH ANNUAL evening of Hope fundraiser on April 29, four students received Hope Scholarship awards of $7,500 each. The four recipients were: Charisa Cottonham, PhD candidate at University of Massachusetts Medical School; Ugonna Ijeoma, a second-year medical student at University of Connecticut School of Medicine; Nicole de Paz, undergraduate student at Yale University; and Dennise A. De Jesus Díaz, graduate student at Tufts University School of Medicine.

Charisa Cottonham grew up in the San Francisco area. She is passionate about increasing the number of under-represented minorities who consider careers in the sciences and has served as a mentor for the University of Massachusetts Medical School NIH Summer Research Program. After she completes her doctoral studies in June, 2011, Charisa plans to continue investigating the molecular mechanisms underlying tumorigenesis in order to further our understanding of cancer biology to ultimately translate novel findings into treatments. Her award was sponsored by Biogen Idec Foundation.

Ugonna Ijeoma was born in New York but raised in Nigeria. She spent two years at the Harvard School of Public Health, where she worked with professional scientists. This year’s award was sponsored by Biogen Idec Foundation.

Society for Science & the Public

SOCIETY FOR SCIENCE & THE PUBLIC (SSP) is a non-profit membership organization founded in 1921 by journalist Edward Scripps and zoologist William Emerson Ritter to keep the public informed about scientific achievements. Based in Washington, D.C., SSP is well known for its publication, Science News, and its science competitions for high school students.

SSP’s two cornerstone programs for high school students are the Intel Science and Engineering Fair (Intel ISEF) and the Intel Science Talent Search (Intel STS). ISEF, for students in grades 9 to 12, is the largest international pre-college science competition in the world. More than 1,600 students from around the world have the chance to showcase their independent research. This competition provides more than $5 million in awards annually for research that is “often far above and beyond what is found in the high school lab,” says Jennifer Carter, director of Outreach for SSP. “Many students have patents pending before they even compete.” In the 2010 competition the first-place prize, the Gordon E. Moore Award ($75,000), was awarded to Amy Chyao from Texas for her work developing a photosensitizer for photodynamic therapy (PDT), an emerging cancer treatment that uses light energy to activate a drug that kills cancer cells.

Carter describes the Intel Science Talent Search as the “most prestigious independent research competition for high school seniors in the United States.” Open only to U.S. students in their senior year of high school, the competition gives them the opportunity to present their original research to nationally recognized professionals. This year’s winner, Erika DeBenedictis, from New Mexico, developed a software navigation system to help improve spacecraft travel.

SSP also provides significant opportunities for volunteers to support the Intel ISEF each year, with particular needs for PhD-level judges and translators for several languages. The next Intel ISEF will take place in Los Angeles in 2011. Anyone interested in volunteering at the Intel ISEF can contact volunteer@societyforscience.org; and you can find more information at www.societyforscience.org/isef.

SSP launched a new fellowship program for math and science teachers in 2009. The SSP Fellows Program provides funding and training to selected science and math teachers in economically under-resourced schools to improve or create research programs in their schools. To qualify, the schools must be made up of at least 40% under-represented minorities and/or 30% of students must receive free or reduced lunch.

The Fellows, who may continue in the program for four years, receive $8,500 per year to apply to the classroom and resources. They begin with five days of intensive professional development at SSP headquarters in Washington, D.C., to network with the other Fellows and develop an operational plan to implement the proposals that earned them the fellowship.

“If we can educate the teacher and hold on to them for four years, we can get to the students and make classrooms more diverse,” Carter says. The ultimate goal, she says, is to help students from under-resourced areas of the country have access to independent research programs so that they, too, can have the chance to compete at the Intel ISEF and Intel STS.

The Fellows have reported decreased truancy levels and increased grades for their students, and several have won summer scholarships. Additionally, in the first year of the program, three of the 10 SSP 2009 Fellows sent students to San Jose, California, to compete in the Intel ISEF 2010.

For more information on the program and how to apply to be an SSP Fellow, please visit www.societyforscience.org/outreach.
New England Science Symposium 2010 Awards

At the 2010 New England Science Symposium (NESS) in February, six students received Ruth and William Silen, MD, Awards for oral and poster presentations and three received honorable mentions for poster presentations. Two students received Dana-Farber/Harvard Cancer Center Awards.

The three awards for oral presentations went to Polakit Teekakirikul, MD, a post-doctoral/research fellow at Harvard Medical School, (first prize, $300); Sunah Hwang, clinical fellow at Children’s Hospital Boston, Division of Newborn Medicine (second prize, $200); and Marianna Sarkissyan, post-baccalaureate at Charles Drew University of Medicine and Science (third prize, $100). Poster presentation prizes were awarded to Gowry Kulandaivel, college student at University of Maryland Baltimore County (first prize, $300); Rifat Ara Zaman, college student, Colgate University (second prize, $200); and Lamin Mbye, PhD, post-doctoral research fellow, Harvard Medical School/Massachusetts General Hospital (third prize, $100). Latrice Landry, MD/PhD candidate, Tufts University School of Nutrition, Science & Policy; Reuben Carter, college student, Georgia State University and Sarah Phillips, college student at Tufts University, received $50 honorable mentions for their poster presentations.

Kristin M. Rose, college student at the Massachusetts Institute of Technology, received the $300 Dana-Farber/Harvard Cancer Center Award oral prize. Lisa Barrow-Laing, PhD candidate at Indiana University School of Medicine, received the $300 poster prize. In addition to the certificates given to the recipients of the awards, all oral and poster presenters received certificates of participation.

The 2011 NESS will take place on Friday, April 1 at the Joseph B. Martin Conference Center at Harvard Medical School. Abstracts should be submitted by post-doctoral fellows; medical, dental and graduate students; post-baccalaureates; college and community college students (particularly African-American, Hispanic/Latino and Native American/Alaska native individuals) involved in biomedical or health-related scientific research. Deadline for abstract submission is January 6, 2011. To submit an abstract and to register, go to www.NewEnglandScienceSymposium.org.

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and sexual assault — things you don’t touch on in academia,” Hall says.

She has always been fascinated with how the body works and how it interacts with its environment to create health or disease. When she left home at 16 to attend college at the University of Miami, she knew then her career choice would be in the sciences. Even when she was making films, Hall notes, “I approached it like a scientific research project.”

Her journey through visual media, metaphysics and community involvement back to academia has equipped her with a unique set of tools and perspectives for her return to biomedical research. And makes her a wonderful role model for students considering a career in the sciences.

2010 Hope Scholarship Recipients

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on the U.S. President’s Emergency Plan for AIDS Relief. After she completes her medical training, Ijeoma hopes to go back to Nigeria to pursue a career integrating clinical medicine and public health. Her award was sponsored by Genzyme Corporation.

Nicole de Paz was born and raised in Florida. She is currently studying molecular, cellular and developmental biology at Yale University. She hopes to pursue a career that combines medicine and public health, particularly focused on women’s health in underserved communities. To that end, after she graduates from college, de Paz plans to pursue a combined degree in medicine and public health. Her award was sponsored by The Fleming Family Foundation.

Dennise A. De Jesus Diaz was born and raised in Puerto Rico. After graduating magna cum laude from the University of Puerto Rico at Cayey in 2005, she participated in the Post-baccalaureate Research Education Program at Tufts University. In 2007, De Jesus Diaz was awarded the Ruth and William Silen, MD, Award for her poster presentation at the BSCP New England Science Symposium. She hopes to have a career where she can integrate education and research within the communities of Puerto Rico. Her award was sponsored by Vertex Pharmaceuticals.
Save the Dates

Career Development Series: Federal Funding Opportunities
Wednesday, October 13, 2010
Harvard School of Dental Medicine — Research and Education Building Auditorium
3:00–6:15 p.m. Program
6:15–7:00 p.m. Dinner and Networking
For physicians in post-doctoral training, junior faculty and fellows (clinical and research)
For more information contact Lise Kaye at (617) 432-0552 or lise_kaye@hms.harvard.edu.

Skills Workshops for College and High School Students
Saturday, November 20, 2010
Harvard Medical School — Daniel C. Tosteson Medical Education Center
For college students and high school seniors, juniors and sophomores

New England Science Symposium
Friday, April 1, 2011
The Joseph B. Martin Conference Center at Harvard Medical School
For fellows, medical/dental/graduate/college/community college students and post-baccalaureates

Evening of Hope
Thursday, April 28, 2011
The Boston Park Plaza Hotel
Annual BSCP fundraising and awards dinner

Important Reminder
Please remember to post your resume and update your contact information on the BSCP website at www.bscp.org. Click on "Update /Submit Your Information” and enter your information under “Current and Former BSCP Participants.”