BIOMEDICAL SCIENCE CAREERS PROGRAM

Mentor Profile

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HAROLD AMOS, Ph.D.

Harold Amos, Ph.D., Harvard Medical School's Maude and Lillian Presley Professor of Microbiology and Molecular Genetics, Emeritus, past director of the Robert Wood Johnson Foundation's Minority Medical Faculty Development Program, and the 1994 recipient of the BSCP Lifetime Achievement Award, is as modest as he is accomplished. Asked to talk about some of his awards and activities he states simply, "I've been lucky in being around when things are being done."

But Dr. Amos is a lot more than lucky. A 1941 graduate of Springfield College, he went off to fight in World War II. He entered graduate school at Harvard in 1946, earning an M.A. and Ph.D. in immunology and microbiology. He spent two years in France as a Fulbright Scholar, and another two years at Harvard as a post-doctoral fellow. He was made an instructor. at Harvard Medical School in 1956. Serving stints as Chairman of the Division of Medical Sciences and Head of the Department of Microbiology and Molecular Genetics, he has been a tremendous influence on countless numbers of students.

In addition to his work at Harvard, Dr. Amos was involved with several programs for minority students supported by the Macy Foundation and was instrumental in starting Morehouse Medical School.

Dr. Amos has been involved with the Biomedical Science Careers Program since its inception. "I had been interested in working with undergraduates and graduate students for a long time," he recounts. "When Joan [Reede] started the program, she asked me to be a resource" for students attending the BSCP conferences.

Amos has attended every BSCP conference, and has kept in touch with many of the students he was assigned to mentor. "I remember the first conference," he says. "There were 300 – 350 students from high school through medical and graduate school. Once



Harold Amos, Ph.D.

you're in on something like this, you wouldn't miss it. You look forward to seeing the new students. And after all the years we've been struggling, you look forward to following the careers of 10s of 100s of students.

"There are no other programs I know of with this range in terms of long-term follow-up," he continues. "Every year we are given a few students to mentor at the conference. Very often, I stay in touch with them throughout their education and beyond."

Asked what he thinks are the greatest difficulties for underrepresented minorities in the biomedical sciences field, Dr. Amos breaks down his answer according to academic level. At the high school

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Insider Information: Financial Aid

Sharon Clayborne, Director of Financial Aid at Harvard Medical School, has been involved with the BSCP since 1994. "When Joan [Reede] developed the BSCP conference, she pulled together a panel to talk to students about various things — admissions, applications and financial aid. I was on the panel, representing financial aid for Harvard," she says.

Clayborne has been at the Medical School since 1981, when she was hired as a staff assistant. She was the senior assistant director of the department for five years, before being named director. As she has moved up through the organization, Clayborne says she has increased her level of involvement with loan counseling.

"At the undergraduate level, financial aid is meted out based on merit," she explains. "At the graduate level, it has nothing to do with merit. That makes a big difference when we counsel students" on how to obtain financial aid.

"In most professional graduate schools, the theory of financial aid is, 'if you want to go to a school and are admitted based on merit, then finances should not be a barrier to your going to that school,'" she continues. "The amount of financial aid is based on need."

Clayborne counsels all students looking for financial aid to "use the Web." Specifically, she recommends www.finaid.org, which has links to several related sites. At the finaid site, students who know their parents' financial information can enter it and get a mock analysis of the amount of aid they might be qualified to receive. They can also enter personal information, including their interests and the type/size of schools they want, and will be linked to sites offering appropriate scholarships. "I used it [the site] for my daughter when she was ready to go to college," Clayborne notes, adding that she has recommended it to other relatives.

Unfortunately for graduate and post-graduate students, most of the opportunities on the site are geared to undergraduates. However, from finaid.org students can get to fastweb, a free scholarship database that has more offerings for those pursuing advanced degrees. "While there aren't that many resources geared to graduate students going into the sciences, there are lots of scholarship and fellowship opportunities," Clayborne says.

Speaking as a financial aid counselor, she adds, "We never want to set up false expectations. But sometimes the process of seeking financial aid helps students solidify their options by seeing what is realistic for them."

Finally, Clayborne cautions, "There are scams. Some people will ask for money in exchange for find-

> "if you want to go to a school and are admitted based on merit, then finances should not be a barrier to your going to that school . . ."

ing you a scholarship. There is no way anybody should have to pay for a scholarship. If you have to pay, it's not legitimate."

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level, he says, it is very difficult for students to have sufficient contact with those in the scientific and medical milieu, which is important in order "to see if this is something that they can and want to do. At large meetings, like the BSCP conference, they see that it is feasible." A difficulty at the college level, according to Dr. Amos, is the fact that underrepresented minorities receive very little encouragement to pursue math and the sciences. In fact, they are sometimes discour-

aged and told they won't be able to succeed. "For minorities, seeing people who have done it is so valuable," he says. "Then they think, 'I can do it, too.' It is really important in college for students to have a good advisor," he adds.

Dr. Amos also recommends that students approaching their senior year who do not feel confident enough to go to medical or graduate school spend a couple of years as research assistants. "Often, working in a supportive lab environment helps them do better on GREs and, ultimately, be accepted at better graduate schools. I have several

students who did that and have since gone on to receive Ph.D.s. Graduate and medical school students still need good counseling, and good multicultural support is key to minority students."

As an inspiration to students, Dr. Amos paraphrases Colin Powell. "There are far more opportunities for the average African-American child in America than there are people willing to take advantage of them... I think that is as true for Hispanics and Native Americans. And the more programs there are like BSCP, the more students you will attract." •

Academic Opportunities

GATES MILLENNIUM SCHOLARS PROGRAM

Applications are now available for the Gates Millennium Scholars Program, which provides scholarships and fellowships to outstanding low-income African-American, Native American, Hispanic American and Asian-Pacific American students to attend the undergraduate and graduate institutions of their choice. The program will begin in the fall of 2000, and will provide financial assistance to 1,000 new students per year over a 20year period, with an annual investment of \$50 million. The program will be administered by the United Negro College Fund, with the support and participation of the Hispanic Scholarship Fund and the American Indian College Fund.

Applicants must be citizens of the United States, have a minimum GPA of 3.3 (on a 4.0 scale), demonstrate significant financial need, show a commitment to leadership and be:

- a high-school senior applying to an accredited college or university for the academic year 2000-2001;
- a college student planning to continue undergraduate study in the academic year 2000-2001;
- a college senior or college graduate enrolled or about to enroll in graduate school for study in the academic year 2000-2001; or
- a graduate student enrolled in a degree program in engineering, mathematics, education or library science.

For information, contact: Gates Millennium Scholarship Program, 877-690-4677, or http://www.gmsp.org/.

MGH Institute of Health Professions

The MGH Institute of Health Professions is an interdisciplinary graduate school located in downtown Boston and affiliated with the Massachusetts General Hospital (MGH) and Partners HealthCare System. Known for its distinctive combination of classroom and clinical education, the Institute offers master's degrees, certificates of advanced study, and other professional education in the fields of physical therapy, nursing, speechlanguage pathology and clinical investigation.

The John Hilton Knowles Fellowship Fund at the Institute provides scholarship support to minority students, women and students from developing countries. Named in honor of a former director of the MGH, the fellowships

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Student Profile

HECTOR MARTINEZ-WILSON

Between the shock of cold weather and the need to read, write and speak in English — not his native language — Hector Martinez-Wilson had a lot to adapt to when he entered Tufts University a little over three years ago. But to the Tufts senior, a native of San Juan, Puerto Rico, the sacrifices have been worth it for the education, experiences and contacts he has gained.

When Martinez-Wilson, a biology major, was in his sophomore year, his advisor suggested that he attend the BSCP conference held that spring. There he met Marc Horowitz, J.D., Director of the Office of Loan Repayment and Scholarship at the National Institutes of Health. "If it wasn't for the conference, I wouldn't have heard about the programs NIH offers,"

he says. "Marc told me about their programs and even helped me through the application process."

A few short months after the conference, Martinez-Wilson was working as an intern at NIH, in the laboratory of cellular and molecular biology. "I was looking at a new theory about how the immune system recognizes a pathogen and mounts a response," he explains. "I had taken immunology at Tufts, but this opportunity gave me the chance to learn much more advanced immunology." And to discover a world of professional opportunities.

"At NIH, I met some joint M.D./Ph.D.s who do clinical and lab work. I found that fascinating," he notes. "I enjoy lab work a lot. But seeing the applicability of what you do on the bench — taking it to patients — made me feel complete."

As he approaches college graduation, Martinez-Wilson has decided to take a year off, then apply to medical school. With the help of people he met at NIH, he is exploring a variety of job opportunities. "Ideally, I'd like to stay on track with infectious disease and immunology," he says, "but I'm open to ideas. I don't want to close myself off to any opportunities." When it comes time to apply for medical school, Martinez-Wilson says he will look for programs that will prepare him to combine clinical and lab work.

In addition to his contacts at NIH, Martinez-Wilson has kept in touch with other mentors he met at the BSCP conference. Through this network, and his own talent and hard work, Martinez-Wilson seems poised for a successful future in biomedical sciences. •

CAREER DEVELOPMENT SERIES: PUBLIC SPEAKING

The Career Development Series is a collaborative effort among Harvard Medical School, Faculty Development and Diversity; Tufts University School of Medicine, Office of Minority and Student Affairs; University of Massachusetts Medical School, Office of the Associate Vice Chancellor; Boston University School of Medicine, Office of Minority Affairs; Biomedical Science Careers Program; and the Massachusetts Medical Society. It is designed for physicians in postdoctoral training, junior faculty, and residents.

On Monday, January 31, 2000, the Career Development Series will offer a seminar on Public Speaking from 3:00–6:00 p.m. at the Longwood Galleria Conference Center in Boston. Patricia A. Clark, Director of Speech/Media Training Services for the American Medical Association, will lead the seminar. Dinner, and an opportunity for networking, will follow the program, from 6:00–7:00 p.m.

For more information, contact Lise D. Kaye at 617-432-0552.

HARVARD FOREST SUMMER RESEARCH PROGRAM IN ECOLOGY

The Harvard Forest at Harvard University is looking to recruit applicants from minority groups that are seriously underrepresented in ecology for its Summer Research Program in Ecology. The Forest is involved in efforts by Harvard University, the National Science Foundation, the United Negro College Fund and the A.W. Mellon Foundation to increase the number of Ph.D. research ecologists from these groups. Students earn \$4,200 for the 12-week session, which runs between May 30 and August 18, 2000. Excellent room and board is available at Harvard Forest for \$100 per week

Undergraduate applicants who are African-American, Hispanic, Native American (American Indi-

Save the Dates for BSCP Events

Biomedical Science Careers Student Conference The Boston Park Plaza Hotel March 4 and 5, 2000

High School Juniors and Seniors, College, Medical, Graduate and Post-Doctoral Students Welcome For an application, call Lise D. Kaye, (617) 432-0552, fax (617) 432-3834, or e-mail lise_kaye@hms.harvard.edu

BIO 2000 an International Meeting & Exhibition

Sponsor: Biotechnology Industry Organization
Hynes Convention Center in Boston
March 26 - 30

The event will feature five days of special symposiums, presentations and workshops, and more than 700 exhibitor spaces.

For more information, call (202) 857-0244

An Evening of Hope

The third annual BSCP fund-raising dinner will take place at the Westin Hotel Copley Place, Boston Wednesday, April 26, 2000

Honorees: Gail Snowden, Managing Director,
Community Banking Group/CRA, FleetBoston Financial,
and Paul C. O'Brien, President, The O'Brien Group
Honor Roll Members: Johnye I. Ballenger, M.D., Children's Hospital;
Kenneth C. Edelin, M.D., Boston University School of Medicine;
Karen Kuskin-Smith, Brookline High School;
JoAnn Moody, Ph.D., J.D., New England Board of Higher Education;
and John T. Potts, Jr., M.D., Massachusetts General Hospital.

ans and Alaskan Native) or Native Pacific Islander (Polynesian or Micronesian) are encouraged to apply. Seniors who will have just graduated are also encouraged to apply.

To apply, send an application, two letters of recommendation, and a complete set of academic transcripts by February 8, 2000 to:

Dottie Recos Smith, Harvard Forest, P.O. Box 68 324 N. Main Street Petersham, MA 01366

For additional information, visit the Harvard Forest Web site at http://lternet.edu/hfr>http://LTE Rnet.edu/hfr, call Dottie Recos Smith at 978-724-3302, or e-mail her at drecos@fas.harvard.edu.

Academic Opportunities

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were established in 1979 by a generous gift from the Rockefeller Foundation. It continues to be supported by contributions from Institute donors.

For more information about the Institute, visit **www.mghihp.edu**.

For information about admissions or the Knowles Fellowship Fund, call the Office of Enrollment Management and Student Affairs at 617-726-3140.