IN TOUCH WITH

BIOMEDICAL SCIENCE CAREERS PROGRAM

Profile: Kenneth Olden, Ph.D., Sc.D.

GROWING UP IN A SMALL, RURAL community in Tennessee in the 1940s, Kenneth Olden, Ph.D., Sc.D., saw that there were three kinds of black professionals — school teachers, ministers and physicians. (There was one of the latter in his town.) Today Olden, whose background didn't really prepare him for his life's work, is director of the National Institute of Environmental Health Sciences (NIEHS) and the National Toxicology Program (both part of NIH), and a world-renowned cancer researcher.

At an early age, Olden decided he wanted to be a physician. But when he was a senior at Knoxville College, he participated in an undergraduate research program at the University of Tennessee that changed the course of his life. "I realized that I loved research and that I wasn't really suited to practicing medicine," Olden recalls. "I thought I could make a bigger difference as a competitive researcher than as a physician."

Olden calls his decision the best he ever made. But it was one that disappointed his family and his entire community, who did not appreciate the importance or relevance of science to their lives. In fact, Olden says that when he was in college he never met any black scientists. And the road from student to cell biologist and biochemist leading the nation's most important institute of environmental health science research was a difficult one that Olden likens to "swimming upstream in [my] own community."

Olden, the first member of his family — and the only one in his generation — to graduate from college, received his B.S. from Knoxville College in 1960 and, after a two-year break, went on to the University of Michigan, receiving an M.S. in biology in 1964. He received a Ph.D. in cell biology and biochemistry from Temple University in 1970, then he did postdoctoral work at Harvard University. He also taught in the Physiology Department at Harvard. Olden left Harvard to take a position as a Senior Staff Fellow in the National Cancer Institute (NCI) at the National Institutes of Health (NIH). He later was promoted to a tenured position in the Laboratory of Molecular Biology in the Division of Cancer Biology and Diagnosis. At the time, in the late 1970s, there was a shift in research funding from microbial research to animal research. At the NCI, Olden

was among the first wave of people to study animal cells and relate their work to cancer in humans.

Among his most important accomplishments at the NIEHS, Olden cites community-based, participatory research, the introduction of genomics into environmental health research, and development



KENNETH OLDEN, PH.D.

of programs and mechanisms to translate the NCI's scientific investment into public health policy and the practice of medicine. "You can't do prevention research without the involvement of American citizens," he stresses. "For example, the nation's immunization programs work because parents have to take their kids to be vaccinated. I tried to bring the American people along as we developed technologies," so they would be comfortable with different kinds of medical procedures and treatments when they were ready for public health or medical application.

In addition to the research he believes in so strongly, Olden is passionate about the need to encourage African Americans to consider careers in the sciences."It's still a real challenge, and one the African-American community has to overcome to communicate to young people how important scientific research is," he says.

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SPECIAL THANKS TO

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SAVE THE DATES

BIOMEDICAL SCIENCE CAREERS STUDENT CONFERENCE

The Boston Park Plaza Hotel, Friday and Saturday, February 27–28, 2004

Audience: High-school juniors and seniors (Saturday ONLY). College, medical, dental and graduate students. Postdoctoral fellows.

Fee: No registration fee, but pre-registration is required.

For applications or information, please contact Lise D. Kaye at lise_kaye@hms.harvard.edu or (617) 432-0552.

NEW ENGLAND SCIENCE SYMPOSIUM

The Boston Park Plaza Hotel, Friday, February 27, 2004

Audience: College, medical, dental and graduate students. Postdoctoral fellows.

Fee: No registration fee, but preregistration is required.

For registration form, please contact Lise D. Kaye at lise_kaye@ hms.harvard.edu or (617) 432-0552.

EVENING OF HOPE The Boston Park Plaza Hotel, Thursday, April 15, 2004

Harvard Medical School Office for Diversity and Community Partnership

THE OFFICE FOR DIVERSITY AND

Community Partnership (DCP) at Harvard Medical School (HMS) is dedicated to promoting increased recruitment, retention and advancement of faculty underrepresented in medicine at HMS and to creating a pipeline of educated, talented young people who will become future physicians, scientists and health care providers as a result of their experience with HMS initiatives.

STUDENT PROGRAMS

Biology Scholars — The goals of the Biology Scholars program are (1) to nurture aptitude and increase the proficiency of students, particularly minority students, who have demonstrated an interest in science through their participation in an AP Biology course; (2) to remove limits on student performance that are due to lack of resources; (3) to build mentoring linkages between HMS graduate/medical students and Boston Public School (BPS) AP Biology students; and (4) to provide AP Biology teachers with science content resources from HMS medical/graduate students.

Explorations — A one-day science enrichment program for 6th, 7th and 8th grade BPS students who have an interest in science, mathematics or health. The program links middle-school students to HMS faculty, research associates, and medical/ dental/graduate students, and exposes them to research laboratories, and science career paths.

Health Policy Summer Program — Paid, mentored, 10–12 week summer research experiences with senior Harvard faculty in health services or health policy research for undergraduate juniors or seniors attending MARC-funded institutions, Hispanic-Serving institutions, Historically Black colleges and universities, and Tribal colleges; and for college students who have previously participated in programs sponsored by the HMS Minority Faculty Development Program.

Mentoring for Science — An after-school program for 8th and 9th grade BPS students that helps them develop laboratory skills and engage in creative thinking and problem-solving through hands-on science activities and mentoring relationships with HMS graduate and medical students. New England Science Symposium — A symposium that encourages minority college students, medical/dental/graduate students and postdoctoral fellows (especially African-American, Hispanic-American and American Indian/Alaska Native) who are involved in biomedical and healthrelated research to share their work through oral presentations or poster sessions.

Program for Research and Investigation in Science and Math (PRISM) — A three-week summer math and science camp for rising 9th graders who have completed 8th grade in a Boston middle school. The program provides case-based academic, hands-on science and site-visit activities at HMS and HMS-affiliated institutions.

Project Success: Opening the Door to Biomedical Careers — This program places high-school students who live in Boston or Cambridge particularly underrepresented minority students - in Harvard research sites, where they complete hands-on, paid, mentored summer research projects under the supervision of Harvard faculty. They also attend science and career development seminars and enhance their speaking and writing skills through oral presentations and the preparation of research reports. Ninety-nine percent of Project Success alumni/ae have matriculated at four-year colleges, and several have begun their studies in medical, dental and graduate schools. Several others are currently teaching in the Boston Public Schools. Project Success: College Level is a paid summer internship program for alumni/ae of the Project Success high-school program.

Southern New England Junior Science and Humanities Symposium (JSHS) — The JSHS research program is for high school students from Massachusetts and Rhode Island.

Visiting Clerkship Program — This program provides financial support for fourth-year and qualified third-year minority medical students (African-American, American Indian/Alaska Native and Hispanic-American) to participate in the HMS Exchange Clerkship Program. Clerkships last four weeks and are available, space permitting, to full-time students in good standing at accredited U.S. medical schools.

Scholarships and Awards for the College, Professional and Adult Student

Regina R. Whitfield, M.P.H., Rush Medical College '04

I FEEL HONORED TO HAVE AN OPEN forum on which to address an issue that is near and dear to my heart — the availability of scholarships and awards for the college, graduate, professional and adult learner.

I am a 1992 graduate of Xavier University of Louisiana. After working for a couple of years, I returned to school, completing my M.P.H. degree in 1996 at Emory University. When I began a professional program as a medical student at 30, I had a number of financial responsibilities that the lean student budget could not support. Therefore, I had to find creative ways to supplement my living expenses without compromising my academic performance.

The solution was to identify and apply for scholarships for which I qualified. The process requires three attributes: (1) time management; (2) diligence; and (3) resilience.

1. Searching for Scholarships. There are a number of resources available on the Internet and in textbook form. Be sure to use every search engine available (Yahoo, Google, etc.). Also, become part of the various scholarship databases so they can send you e-mails about scholarships you may qualify for based on the personal information you've submitted. Search organization Web pages that reflect your interests and qualifications, including the Student National Medical Association, the American Psychological Association, the National Society for Black Engineers and the American Thoracic Society. Finally, ask your librarian and financial aid representative about available resources.

2. Organizing Your Search Results. Once you've identified scholarships you may be interested in applying for, organize the descriptions in a manila folder according the year in which you will qualify. At the beginning of each academic year, you can review the appropriate folder and identify the scholarships to which you plan to apply.

3. Establishing a Scholarship Calendar. Place application deadlines on a calendar that includes other important dates. This will help keep the scholarships in the forefront of your mind. 4. Requesting an Application. Divide the academic year into halves. For scholarships with deadlines during the first half of the academic year, request applications in June. For those due during the latter half of the year, write for applications in November.

5. Letters of Recommendation. Identify those whom you would like to write letters of recommendation EARLY. If you're applying to medical school, make your requests in June or July so you're ahead of the rush of requests made when the academic year resumes. Once a professor has agreed to write a letter for you, give him/her (a) the name of the award; (b) a description of the award and list of criteria a qualified candidate should have; (c) the deadline of the award; and (d) to whom the letter should be addressed. Also, provide a current curriculum vitae/résumé and any additional information about you that may assist in writing a stellar letter on your behalf.

6. Completing the Application. Don't miss deadlines. If you pace yourself appropriately, you should only have the essays to complete two weeks before the application is due.

7. Final Tips Regarding Your Application. (a) Presentation is everything. Be sure to use the best quality paper to print out all correspondence related to your application. (b) You may also want to place dividers between each section of your application to announce what is forthcoming (i.e. résumé or community service). (c) Include a cover letter thanking the recipient for the opportunity to complete the application and outlining what is included in the application. (d) Never allow yourself to be confined to the minimal space provided to respond to a question/essay unless such parameters are noted. (e) Save ALL data on disk and/or your hard drive. Many applications ask similar questions, and it is often more time efficient for you to modify a previous response than to generate a new one.

This is a lot of work, and sometimes the returns are sporadic. However, BE ASSURED that practice makes perfect and the early bird catches the worm.

ANNOUNCEMENTS

PROJECT SUCCESS: OPENING THE DOOR TO BIOMEDICAL CAREERS

June 21–August 13, 2004

Project Success targets Boston and Cambridge minority highschool students who participate in mentored summer research internships at Harvard Medical School and its affiliated institutions. Applications due March 12, 2004.

Contact Angela Counts at angela_counts@hms.harvard.edu or (617) 432-4697.

PROGRAM FOR RESEARCH AND INVESTIGATION IN SCIENCE AND MATH (PRISM)

June 28–July16, 2004

PRISM provides enjoyable summer academics and activities for rising Boston Public Schools 9th grade students. The program is designed to ease the transition from middle to high school and to help students build a solid foundation in their math and science skills.

Contact Angela Counts at angela_counts@hms.harvard.edu or (617) 432-4697.

IN THIS ISSUE

PROFILES: KENNETH OLDEN, Ph.D., Sc.D., and SEDERICK RICE, Ph.D.

> HMS DIVERSITY PROGRAMS

SCHOLARSHIPS AND AWARDS

SAVE THE DATES!

Profile: Sederick Rice, Ph.D.

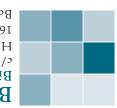
IT WOULD BE FAIR TO SAY THAT THE TWO loves in Sederick Rice's life are music and science. The former tuba player and author of the 1999 book *Must Be the Music, Vol. 1: Memoirs of a Musical Dynasty* would say that his love of music began when he was a child in Pine Bluff, Arkansas, and later helped open him up to discover science.

Rice, 31, received a Ph.D. in Cell and Molecular Biology from the University of Vermont (UVM) last August. He is currently a biologist/environmental scientist at the National Center for Environmental Assessment, part of the Environmental Protection Agency. He is a former BSCP student, having attended the Biomedical Science Careers Student Conferences in 1998, 2000 and 2002, and he served as a driver and chaperone for UVM undergraduates. He also received a BSCP HOPE Scholarship in 2001.

At UVM, Rice worked in the Department of Pediatrics, where he studied the long-term effects of leukemia treatments on children. According to Rice, current medications help children survive their cancers but do not take into account the potential dangers that could affect them as they get older. His goal was to find better ways to treat children with cancer to preserve their long-term health.

Among Rice's numerous honors, he is perhaps most excited about having been named as one of *Ebony* magazine's "Young Leaders of the Future" in February 2003. "It was always my goal growing up to be in *Ebony*," he said. "I just set a path to getting there."

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KENNETH OLDEN, PH.D.

Continued from page 1

"Research is thought to be pedestrian to African Americans because it's not civil rights; it's not medicine; it's not law."

Olden, who will be a keynote speaker at the 2004 Biomedical Science Careers Student Conference in February, advises current students to follow their hearts in deciding their careers. "Do something that you actually like," he says. "Life is long. You don't want to be trained for one thing and discover at 35 that you don't really like what you're doing."

He also says students should not be influenced by how much money they think they'll make."When I started in biomedical research, no one could predict the [often significant] size of salaries people in the field get now."

Finally, Olden counsels students to be prepared to work hard. "Once you pick your field, decide what you have to do to be successful. Many students don't understand the commitment they need to be successful. But if you enjoy what you're doing, even though it's called work, it can be fun."

DON'T FORGET!

Post your resume where prospective employers can see it at:

www.bscp.org