

BSCP

IN TOUCH WITH

BIOMEDICAL SCIENCE CAREERS PROGRAM

September 2000 Volume 5 Number 3

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Special Thanks To

Mintz, Levin, Cohn, Ferris, Glovsky
and Popeo, P.C. and the Massachusetts
Medical Society for their support of this
newsletter



(L-R) Recipients of HOPE scholarships: C. Reid, J. Imahiyerobo, V. Taylor, R. Mungai, Y. Khawja, and C. Okafor.

An Evening of Hope 2000

The Biomedical Science Careers Program's (BSCP) third annual fundraiser, An Evening of Hope, which took place on April 26, 2000 at the Westin Copley Place Boston, raised more than \$200,000 — a record. For the first time, the fundraiser had four major benefactors: Biogen, Inc., Boston Scientific Corporation, Genetics Institute/Wyeth-Ayerst Pharmaceuticals and Genzyme Corporation.

The evening was also an occasion to honor people who have given of themselves to BSCP over the years. Joan Y. Reede, M.D., M.P.H., M.S., President and Chair of BSCP, noted that the guests of honor were recognized for "their years of commitment to justice, equity and the advancement of youth, particularly minority youth." She continued, "We are here to recognize those individuals and corporations who enable BSCP to HOPE."

HOPE scholarships, sponsored by Biogen, Inc., Boston Scientific Corporation, Genzyme Community Foundation, Millennium Pharmaceuticals, Inc., Pfizer Inc., The Fleming Family Foundation, Inc. and MassMEDIC, were awarded

to six academically outstanding minority students. The students, who will each receive \$2,500 per year for two years, are:

- Carl E. Reid, a Ph.D. candidate at the Sackler School – Tufts University School of Medicine, who plans to continue research in the pharmaceutical or biotechnology industry

- Joyce I. Imahiyerobo, a junior at Harvard University, who aspires to be a physician involved in international public health policy

- Yasmin Khawja, a freshman at Swarthmore College, who plans to be a physician specializing in homeopathic medicine

- Vantrice L. Taylor, a METCO student attending Scituate High School, whose career goal is to become a pediatrician or a forensic pathologist

- Robert K. Mungai, a student at the University of Massachusetts at Amherst, who would like to train as an internist and/or cardiologist

- Chukwuka (Chuka) C. Okafor, a first-year medical student at Boston University School of Medicine, who plans to become an orthopedic surgeon.

Keynote speaker Samuel O. Thier, M.D., President and Chief Executive Officer, Partners HealthCare System, Inc., shared his insightful vision of the future of health care and connected this vision with the mission of BSCP. Chukwuka C. Okafor, BSCP student and HOPE scholarship recipient, offered his perspectives on his experiences with BSCP and told the audience about the many opportunities that would not have been available to him or several other students without BSCP. Chuka was born in Boston and grew up in Nigeria. He attended the 1996, 1998 and 2000 BSCP Conferences and the 1998 BSCP Skills Workshops. *A summa cum*

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Spotlight On: Yvonne T. Maddox, Ph.D.

In 14 years, Yvonne T. Maddox, Ph.D., has risen through the ranks at the National Institutes of Health (NIH) to become deputy director of the National Institute of Child Health and Human Development (NICHD) and acting deputy director of NIH. Not bad for a girl from Virginia who was the first person in her family to attend college.

Maddox received her B.S. from Virginia Union University, a historically black college, in 1965. In her senior year she was accepted into medical school, but that same year her father became seriously ill. Unwilling to leave her parents and two brothers, Maddox gave up medical school and returned home. She got a job as a technician at the Medical College of Virginia. "It was because of that job that I am where I am today," she says. "That job led me to private industry, then into academics."

When she was 27 years old, married, and a mother, Maddox enrolled in graduate school. "I was on the fast track to accomplishment," she recalls, adding, "If there had been any serious problems in my way, I might not have been able to move ahead." Happily for Maddox, and fortunately for the countless others who have benefited and continue to benefit from her work, Maddox did move ahead, earning a

Ph.D. from Georgetown University in physiology and biophysics.

After receiving her Ph.D., Maddox was a post-doctoral fellow at Georgetown, and taught there for another two years. "Having been in the academic community," she says, "I realized there were other things I could do within the biomedical research enterprise that would have an impact beyond making scientific discoveries. I realized I loved the idea of building programs and establishing partnerships. Coming to NIH allowed me to do that."

Maddox's first assignment at NIH was in the trauma and injury department at the

National Institute of General Medical Sciences (NIGMS). While there, she was made a liaison between NIGMS and the Office of Research on Women's Health. She was also asked to become acting director of the Minority Access to Research Careers Program (MARC), a long-standing program that helps get minority undergraduates into biomedical sciences. In the late 1980s Joan Y. Reede, M.D., M.P.H., M.S., visited Maddox at the NIH to learn about MARC and find out about opportunities for minority youth. The two have remained in touch and Maddox has participated in several BSCP conferences.

In her current position at NICHD, Maddox manages all of the Institute's extramural programs, which support research on issues including population, reproductive biology, child nutrition and developmental biology. The Institute also is responsible for one of the leading programs on pediatric, adolescent and adult AIDS.

Of her new role, Maddox declares, "It's fascinating being in the Office of the Director." Though her time there is of indeterminate duration, her goals are not. Maddox advises the NIH director on human resources and other internal matters, oversees several special initiatives, is working to expand and enhance the agency's clinical research program, and is working on the development of NIH's strategic plan to close or eliminate gaps in health among minorities and underserved populations.

With her story, and her experience, Maddox is a tremendous role model for minority students looking toward careers in the biomedical sciences. She emphasizes to anyone interested in the field, "Nothing takes the place of good training. You have to get that basic background in the sciences. You have to be prepared to be innovative and creative. And you have to devote time to learning." While admitting that many minority students face tougher obstacles than those who are not minorities, she adds, "if you really want it, you can achieve it." ♦



**Yvonne T. Maddox, Ph.D.,
Acting Deputy Director,
National Institutes of Health**

An Evening of Hope

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laude graduate with honors in biochemistry from the University of Massachusetts Boston, Chuka could have been speaking for all BSCP students when he expressed gratitude for the mentoring he has received.

Evening of Hope 2000 co-chairs James R. Tobin, President and Chief Executive Officer, Boston

Scientific Corporation, and Josef von Rickenbach, Chairman and Chief Executive Officer, PAREXEL International Corporation, presented awards to distinguished honorees Gail Snowden, Managing Director, FleetBoston Financial and Paul C. O'Brien, President and Chief Executive Officer, The O'Brien Group, for their contributions to mentorship, to the community and to diversity. Honor Roll

members cited for their repeat contributions to the organization and the students it serves are Johnye I. Ballenger, M.D., Children's Hospital Boston; 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. ♦

Mentor Profile: Arlyn Garcia-Perez, Ph.D.

Born in Cuba and raised in Puerto Rico, Arlyn Garcia-Perez, Ph.D. says she never felt like a minority until she came to the Massachusetts Institute of Technology (M.I.T.) as an undergraduate in the mid-1970s. "Even though M.I.T. was very good at sheltering minorities," she says, "there was no getting around the fact that I was a stranger in a strange land. I had studied English my whole life in Puerto Rico, but the English being spoken all around me was not the same language I had learned in books."

Garcia-Perez is assistant director, Office of Intramural Research, National Institutes of Health (NIH) and adjunct investigator, Laboratory of Kidney and Electrolyte Metabolism (LKEM) at the National Heart, Lung and Blood Institute (NHLBI) of NIH. In addition to her scientific endeavors, she is dedicated to issues concerning women and minorities. She spends a great deal of time in her current position mentoring students in NIH programs, and she served as an advisor and keynote speaker at the 2000 Biomedical Science Careers Student Conference.

Since she was a child listening to her parents, both pharmacists, discuss science and medicine at home, Garcia-Perez has had an abiding love for science. When she arrived at M.I.T. as an undergraduate, her plan was to go on to medical school. But in her sophomore year an independent research laboratory course changed Garcia-Perez's life. "I fell in love with the lab," she recalls. "I realized that instead of prescribing medicines, I wanted to discover them."

At the time, the field of molecular biology was exploding, and some of its leaders were at M.I.T. Garcia-Perez decided that she wanted to apply a molecular perspective to physiology, "and I was in the right environment," she says. "There was no way at the time to connect molecular study to human

beings, but I saw that's where it was going."

Following the advice of her professors, Garcia-Perez went on to graduate school at Michigan State University to study biochemistry, so she would have a broad science background. "It was the best advice I ever got," she says. At Michigan State, "renal physiology became my love," she continues.

"But I researched it from a molecular perspective. I was one of the first people to look at it this way."

From graduate school, Garcia-Perez moved to NIH, which has one of the best renal physiology labs in the world (the LKEM at NHLBI). As a post-doctoral fellow she brought a molecular perspective to the lab, and her work there led her to a tenure-track position. Once she received tenure, and had established herself in her field, Garcia-Perez was able to devote more time to minority issues.

"As soon as I was going for tenure, mentoring became a big issue for me," she notes. "I felt I wanted to give the right kind of mentoring, because getting the right kind of mentoring had been critical in my career. I was most interested in women and minorities because they lack mentors more than other groups."

In addition to her work in the lab, Garcia-Perez got involved with a variety of student programs within and outside of NIH, focusing on issues of minorities and women. In 1999, she was named assistant director for intramural research where, she says, "Mentoring is a big part of my role."

It was through this work that Garcia-Perez met BSCP's Joan Y. Reede, M.D., M.P.H., M.S., a key advisor to NIH's Undergraduate Scholarship Program for Persons

from Disadvantaged Backgrounds. She and Garcia-Perez are both on the Advisory Admissions Committee.

Garcia-Perez has kept in touch with two of the students she met at the BSCP Conference, and advises

them as she advises so many other minority students in the NIH programs: "Don't focus on discrimination and don't get angry about it.

Look at it as an opportunity to educate and enlighten those who don't know any better. Concentrate early on building your credentials, for there is no better equalizer than hard-earned credentials." ♦



Arlyn Garcia-Perez, Ph.D. (L) at the BSCP 2000 Conference.

Internet Resources

Following is a selection of helpful Web sites:

NIH Undergraduate Scholarship Program for Persons from Disadvantaged Backgrounds.
<http://ugsp.info.nih.gov/>

Fellowship for Minorities
www.rackham.umich.edu/Fellowships/minofell.html

United Negro College Fund Programs and Scholarships
www.uncf.org/scholarships/

National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc.
www.nd.edu/~gem

Ford Foundation Predoctoral Fellowships for Minorities
www.nas.edu/osep/fo.nsf

Gates Millennium Scholars Program
www.gmsp.org

Save the Dates

EXPLORATIONS

Thursday, October 26, 2000

Sponsored by the Biomedical Science Careers Program, Harvard Medical School Faculty Development and Diversity Community Outreach Programs and Minority Faculty Development Program K-12 Programs

For Middle School Students

"Explorations" is BSCP and Harvard Medical School's pilot program for approximately 50 middle school students interested in science and mathematics.

ATTENTION ALL STUDENTS

Please send us your e-mail addresses, new permanent and new campus addresses:

Biomedical Science
Careers Program

c/o Minority Faculty
Development Program
Harvard Medical School
164 Longwood Avenue
2nd Floor
Boston, MA 02115-5815

Fax: (617) 432-3834

E-mail:
lise_kaye@hms.harvard.edu

SKILLS WORKSHOPS FOR HIGH SCHOOL STUDENTS

Saturday, November 18, 2000. 9:00 am to 2:30 pm. For Seniors, Juniors and Sophomores. Harvard Medical School, Daniel C. Tosteson Medical Education Center

The objective of the "Skills Workshops for High School Students" is to provide students with concrete information on skills needed for success in their academic careers. Some of the topics covered will be Application Process for College, Interviewing Skills and Resume Writing.

Pre-registration is required. Please call (617) 432-0552 to receive an application.

CAREER DEVELOPMENT SERIES FALL SESSION: THURSDAY, OCTOBER 5, 2000

Program: 5:00 to 6:00 pm. Dinner and Networking: 6:00 to 7:00 pm. Audience: Physicians in post-doctoral training, junior faculty and residents. Location: The Inn at Longwood Medical – Fenway Room

Topic: "The Secret to Successful Presentations: It's Not What You Say, But How You Say It"

Presenter: Patricia A. Clark, Director of Speech and Media Training Services, American Medical Association

Pre-registration is required. Please call (800) 843-6356.

SPRING SESSION: TUESDAY, MARCH 20, 2001

Topic: "Strategic Negotiation"

BIOMEDICAL SCIENCE CAREERS STUDENT CONFERENCE

Friday, March 1 and Saturday, March 2, 2002.

EVENING OF HOPE 2001

Tuesday, April 24, 2001

TEST DATES

SAT: October 14, 2000, November 4, 2000, December 2, 2000, January 27, 2001, March 31, 2001, May 5, 2001, June 2, 2001.

GRE: November 4, 2000, December 9, 2000, April 28, 2001.

Student Profile: Hwei Shuan Liu

When Hwei Shuan Liu signed up for the 2000 Biomedical Science Careers Student Conference, she searched the Conference catalog to find someone with expertise in her field of interest — bioinformatics. Liu, a junior at Simmons College double-majoring in biochemistry and computer science, found one person with expertise in the burgeoning field, John E. Heng, Ph.D., Manager, New Software Ventures, Global Software Division, North Americas at Motorola. She sought him out at the Conference and introduced herself. Three weeks later Heng sought Liu out — to offer her a summer internship.

Simply put, bioinformatics is database management of biological information. Liu's internship, at Motorola this past summer, was in Position Agriculture, which is in the same department as bioinformatics. Working on a project involving programming with sensors, Liu wrote a program that will allow farmers to use sensors to take measurements and readings of the soil. If the sensors identify any conditions that indicate potential trouble — excessive moisture, or other indicators of potential disease — the information is transported to the farmer's computer, where a warning appears on the screen.

Liu first heard about the BSCP Conference from a friend at school, and credits the contacts she made there with her opportunity at Motorola.

Born in China, Liu moved to New Hampshire with her family when she was 14. While admitting to certain hardships moving to a new country, Liu says she enjoys living and studying in the U.S. and appreciates all the opportunities available to her. Her ultimate goal is a career in which she can integrate biology or chemistry with computer sciences in the medical field.

She's off to a great start... ♦