An Evening of Hope
Second Annual BSCP Fundraiser

The Biomedical Science Careers Program’s (BSCP) second annual fundraiser, "An Evening of Hope," took place last May in Boston. Once again Liz Walker, award-winning journalist and news anchor of News 4 New England, served as Mistress of Ceremonies. This year the event raised $190,000 after expenses. The BSCP honored two individuals for their contributions to science, the community and diversity; and it awarded HOPE scholarships to five academically outstanding minority students, and recognized five outstanding volunteers.

According to Wendell J. Knox, president and chief executive officer of Abt Associates Inc. and this year’s "Evening of Hope" chair, "The support that we provide today to the fulfillment of BSCP’s mission — to attract and support talented minority students to careers in the biomedical sciences — is an investment in the future health and welfare of our communities and citizenry. The returns will be appreciable and we all will share in the benefits."

Guests of Honor Henry A. Termeer, chairman, chief executive officer and president of Genzyme Corporation and Benaré P. Wiley, president and chief executive officer of The Partnership, Inc., were recognized for their tremendous contributions to science, the community and diversity. "This evening we acknowledge their years of commitment to justice, equity and the advancement of youth, particularly minority youth and those who are disadvantaged," said Joan Y. Reede, M.D., M.P.H., M.S., BSCP president and chair.

"The idea behind the scholarships is to identify and support minority students who are interested in biomedical fields and who are excelling academically," explained Lise Kaye, BSCP executive director. The five scholarship recipients, who each will receive $2,500 per year for two years, are:

- Maronda V. Brown, a Ph.D. candidate in molecular and cellular biology at the University of Connecticut who plans to pursue a career in research and academia;

- Marlon D. Green, a third-year student and biology major at the University of Massachusetts at Boston who plans to become a physician;

- Tina-Ann C. Kerr, a medical student at Boston University School of Medicine who plans to become an obstetrician and gynecologist with a special focus on the Latino immigration population;

- Raymond R. Montoya II, a freshman at M.I.T. who hopes to become a researcher and physician; and

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Mentor Profile: Kenneth R. Bridges, M.D.

Kenneth R. Bridges, M.D. has been involved with the Biomedical Science Careers Program since the organization held its first student conference in 1992 and has attended nearly every one since then. "I find it very rejuvenating to see students who are looking at careers in science and medicine," he says. "Most of the students I see at the conferences are idealistic in many ways. It's good to see some idealism. I also get a great deal of satisfaction from providing guidance in what is a difficult path — especially for those who haven't been down it and don't have any guideposts."

Bridges, who is on the Harvard Medical School (HMS) faculty, is also director of the Joint Center for Sickle Cell and Thalassemic Diseases at Brigham and Women's Hospital in Boston and recruits students to work in his lab during the summer. He is also the faculty advisor for the Hinton-Wright Society at the Medical School. The Society, named for two of the first black faculty members at HMS, holds monthly forums in which faculty and students present their work. "Involvement with the Society is very positive for the students and the faculty," Bridges notes. "It provides an outlet for minority students to share their work. Many Society members have decided to go on and get advanced degrees beyond medical school."

Bridges' medical education began at Harvard in 1972. After graduation he served his internship and residency periods at the Harvard teaching hospitals, and joined the faculty as an instructor in medicine. In 1995, he organized the Joint Center, which provides coordinated care for people with sickle cell and thalassemia.

As a student advisor both through the BSCP and the Medical School, Bridges says the most important advice he can impart is to "keep an open mind about what you want to do. Look for opportunities as they come along."

Asked whether he feels it is harder for minority students to find opportunities, he comments, "Minority students are more torn than majority students when issues such as whether to practice primary or tertiary care, or to conduct research, come up. Many of them feel they want to contribute to their communities, but don't necessarily want to give up the opportunity to provide hands-on treatment. "Once they move beyond medical school, to the broader area of medicine, it is harder for minorities to find opportunities," he continues. "The opportunities for minorities are abbreviated in comparison to the general population. The most effective way I see to overcome this is by having minorities achieve represenation at every level. Programs like the BSCP do an admirable job of trying to correct the imbalances, by pointing minorities to opportunities and helping them take advantage of those opportunities. But the only way to ensure long-term correction is to achieve wide-scale representation."

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• Mynor L. Polanco, a first-year student at Bunker Hill Community College who hopes to attend medical school and become a surgeon.

The BSCP also announced its 1999 Honor Roll, recognizing volunteers who have contributed to the organization and the students it serves. This year's Honor Roll included: Audrey Bernfield of the Harvard Medical School, Kathryn R. Bloom of Biogen, John V. Hef- fernan of Genzyme, Mike Murphy of Abt Associates, and Anthony A. René, Ph.D., of the National Institutes of Health.

Vantrice Taylor, a BSCP student, and Kenneth I. Maynard, M.S.C., Ph.D., offered their personal perspectives on the BSCP. Taylor, a METCO student who lives in Boston and attends Scituate High School, participated in the 1998 BSCP Student Conference and made contacts there that helped her become involved with Project Success. Maynard, assistant professor in surgery at Harvard Medical School and assistant neuroscientist at Massachusetts General Hospital, helped plan the BSCP student conference in 1994 and was a speaker there. It was at the conference, in a meeting arranged by Joan Reedie, that Maynard made the connection that he says cemented his career at Harvard.
BSCP Careers
Pharmacy: A Caring Profession

BY JOHN REYNOLDS, PHARM.D.
DEAN, SCHOOL OF PHARMACY,
MASSACHUSETTS COLLEGE OF PHARMACY
AND HEALTH SCIENCES

What comes to mind when you think about a pharmacist? Perhaps it is the image of a person in a white coat working behind an elevated prescription counter, surrounded by multiple shelves of medication containers. What is not always so evident is that the pharmacist's primary public health function is to ensure that patients taking the medications receive optimal therapeutic benefits with minimal adverse effects. This type of professional service is commonly referred to as pharmaceutical care.

At the core of this type of service is the need for the pharmacist and the patient to communicate effectively regarding the effects of various medications on the body, reasons for taking the medications, expected effects, and feelings about taking the medications.

Preparation to become a pharmacist involves six years of study at the college level, resulting in the Doctor of Pharmacy (Pharm.D.) degree. Upon completion of at least two years of pre-professional study in the Arts and Sciences, students progress into a four-year professional curriculum that is heavily oriented to the sciences. The final year of the program is almost entirely based in the practice environment (e.g., hospitals, clinics, community pharmacies, etc.), where students apply their knowledge and skills to actual patients under the guidance of faculty members who are practicing pharmacists. Upon completion of the degree program, graduates take the national pharmacy licensure board examination and the state pharmacy law examination. To qualify for this examination, graduates must also have completed a specified number of internship hours, determined by individual states.

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Student Profile

MARK MELENEZ

Mark Melendez has always had a strong interest in science, and wanted to pursue medicine as far back as he can remember. But it was two major traumatic events, he says, that inspired him to become a physician. When Melendez was 15, his 42-year old father had a serious, though not fatal, heart attack. More recently, his beloved grandmother passed away from leukemia.

Melendez, who has been in the medical field since he graduated from college in 1991, began the final stage of fulfilling his lifelong ambition last month, when he enrolled in the Ross University School of Medicine in Dominica, West Indies. The New York native began medical school with more real-life medical experience than most entering students.

In 1989, during the summer between his sophomore and junior years at SUNY Binghamton in New York, Melendez participated in the Harvard Health Professions summer program. He took courses at Harvard's undergraduate campus, studied gross anatomy at the medical school, and conducted research at the Dana-Farber Cancer Institute in Boston.

After graduating from Binghamton with a B.S. in biology, Melendez studied at Long Island University's Brooklyn campus to become a physicians' assistant (PA). He graduated two years later and worked as a PA for five years. In 1996 Melendez came to Boston to participate in the post-baccalaureate program at the Boston University School of Medicine. Students in this one-year program take medical school courses with graduate and medical school students. It was during his time at B.U. that Melendez first discovered the BSCP.

"I heard about the BSCP conference through the minority affairs office at Boston University," he recalls. "I attended the conference that spring and was able to meet with a variety of people. I spent time talking to employees from pharmaceutical companies and explained the BSCP to them."

After completing the program, Melendez returned to New York, where he became "the first physicians' assistant in the department of general surgery at Mt. Sinai Medical Center. It was a great responsibility," he explains.

"Basically, I took on the role of a surgical intern. I managed patients independently, handled emergencies, admitted patients to the Emergency Room, and sought consultations during the evening shift. In the mornings I participated in surgical rounds with the surgical team and presented patients to the chief resident." Despite having moved around so much, Melendez has kept in touch with people at the BSCP. And he was back in Boston this past summer, studying gross anatomy and histology as part of a pre-enrichment program at the B.U. Medical School. Ultimately, Melendez's patients should be the beneficiaries of his extensive training, and his obvious dedication and inspiration.
Resources and Opportunities

The National Institutes of Health Undergraduate Scholarship Program for Individuals from Disadvantaged Backgrounds (UGSP) offers service-connected scholarships of up to $20,000 per year. Scholarships include paid research fellowships during the summer and research training after graduation. For more information, call:
Dr. Alberto Rivera-Rentas at (800) 528-7689, or e-mail ugsp@nih.gov.

The National Medical Fellowships' Kellogg Fellowships in Health Policy Research provide doctoral support for up to two to five years for minority researchers who are trained in the analysis, design and evaluation of health policy. Applications are due March 3, 2000. For an application, or more information, contact:
Charles A. Wright, Jr.,
Program Administrator, at (212) 714-0953, or e-mail natmed@worldnet.att.net.

The following Web sites and publications can help you think about how to pay for your education:

- College Board (College Scholarship Services) - www.collegeboard.org
- Department of Education Student Guide - www.ed.gov/dirs.html
- Student Loan Information - www.studentloan.com
- College Fund/United Negro College Fund - www.uncf.org/programs/scholar.htm
- Sallie Mae (Loan Information) - www.salliemae.com
- The Student Guide, 1999-2000, Department of Education. Free. Federal Student Aid Information Center, P.O. Box 84, Washington, D.C. 22004-4 (800) 4 FED AID (800-433-5243)

Save the Date

Biomedical Science Careers Student Conference
Boston Park Plaza Hotel
March 4 - 5, 2000
High School, College, Medical, Graduate and Post-Doctoral Students Welcome

For an application:
call Lisa Kaye, after November 15, at (617) 452-0552
fax (617) 452-3834
or request one from our Web site: www.bscp.org

Announcements

- The BSCP Web site has gone live with information about events, opportunities, conference registration, other members and more. Visit us at www.bscp.org.
- Students, if you know that you are going to receive a special award or honor, let us know so we can publish it in the newsletter. Contact Lisa Kaye at (617) 452-0552 or e-mail: lise_kaye@hms.harvard.edu.
- The New England Board of Higher Education's Science, Engineering and Mathematics Academic Support Network will hold its eighth annual meeting for undergraduates and graduate students in science, engineering and mathematics on Saturday, October 23 at the Massachusetts Institute of Technology. NEBHE also invites minority and non-majority scientists from business, academia and government labs to serve as advisors to Science Network students. For more information, contact Jeanne Washington at (617) 357-9620, ext. 135; e-mail: jwashington@nebhe.org.

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Numerous professional opportunities are available to pharmacists. Although most pharmacists begin their careers in community pharmacy environments, an increasing number are entering the workforce in hospitals, community health centers, HMOs and home infusion therapy companies. Still others pursue graduate studies and post-graduate education and training programs that prepare them for careers in research and teaching. Those interested in the pharmaceutical industry find work in sales, marketing, research and information services. Opportunities for continued professional development in each of these areas are excellent, and pharmacist salaries are among the highest in the health professions.

With the ongoing and rapid changes in our health care environment, and the increasing use of medications to treat and cure illnesses, the role of pharmacists in ensuring optimal outcomes is only going to increase. Pharmacists are frequently included as part of health care teams because they are prepared to provide unique and necessary medication therapy services to patients in a variety of practice environments. ♦