MILESTONE: Biomedical Science Careers Program
20th Anniversary

TWENTY YEARS AGO, JOAN Y. REEDE, MD, MPH, MBA, then director of the Harvard Medical School (HMS) Minority Faculty Development Program, had a vision: “to identify, nurture and integrate into the biomedical, biotechnical, STEM [science, technology, engineering and mathematics] and health workforce the amazing and diverse human capital that resides in our nation,” she says. Today that vision exists in the form of the Biomedical Science Careers Program (BSCP), which has affected the lives of more than 8,000 students and 1,100 postdoctoral trainees and junior faculty since it was founded in 1991. BSCP was incorporated as a not-for-profit organization in 1994.

“By recognizing, capturing and providing opportunities to students and early career professionals, BSCP provides hope to talented individuals from New England, the United States and beyond; provides a forum for collaboration across sectors, organizations and disciplines; and provides our nation with the researchers, innovators, health care workers and leaders of tomorrow,” Reede continues. “BSCP is an example of how, together, we can create needed positive change that is sustained and that truly makes a difference.”

BSCP identifies academically outstanding minority students and trainees dreaming of a career in medicine, health care, science and biotechnology, and provides them with the information and support needed to achieve their goals through conferences, symposia, workshops, newsletters, linkage programs, the BSCP Network and scholarships. The organization also connects them with physicians, scientists, faculty members and health care professionals who volunteer their time and expertise to advise and mentor them. To its participants, BSCP is a continuous support system. Many students return year after year; some even as student advisors.

The program is unique in its focus, its leadership — there is only one Joan Reede — and the fact that it belongs equally to the medical/graduate school, college, community college, middle and high school, hospital, company, participant and alumni communities. It is community- and volunteer-supported; more than 1,000 faculty members and professionals have volunteered their time and expertise to helping BSCP students to date. And because it is based in Boston, the area’s tremendous talent, capital and opportunities are available.

It is fitting that the anniversary will be celebrated at the 14th annual Evening of Hope, the organization’s primary source of funding. It is also noteworthy that nearly half of the original Board of Directors remains on the BSCP board today. They are: George Kaye, formerly of Brigham and Women’s Hospital; Kyriss Rodriguez, PhD, of Roxbury Community College; Joan Reede, of HMS; Henri Termeer, of Genzyme Corporation; and Jeffrey Wiesen.
Mentor Profile
Keith D. Crawford, MD, PhD

IT WOULD BE HARD TO FIND A better ambassador for the Biomedical Science Careers Program (BSCP) than Keith D. Crawford, MD, PhD. He says he makes sure “everyone I know, away from Boston and in Boston knows about it. [I tell] every person, child, friend, if they’re interested in health care, get involved in Joan Reede’s program.”

Crawford is director of the Laboratory of Molecular Diagnostics, Center for Molecular Orthopaedics, at Brigham and Women’s Hospital (BWH) and instructor of orthopaedic surgery at Harvard Medical School. His research focuses on improving the understanding of osteoarthritis in the elderly, stress fractures in female athletes and the development of cell-based therapeutics for the acceleration of fracture healing. The therapeutics, currently in development, are based on his laboratory’s 2007 discovery of the “early lineage adult” (ELA) stem cell.

Crawford attended his first BSCP conference as a PhD candidate at Harvard University in 1994 for networking and support and has returned as a mentor for several years. In November, he was the keynote speaker at the BSCP Skills Workshops. In 2008, he was named to the Honor Roll at the Evening of Hope fundraiser, a tribute reserved for four individuals each year who have substantially devoted their energies to the BSCP over time.

When he was in high school in Kirby, Texas, a small town outside of San Antonio that he says “had more cattle than people” and no public library, Crawford was more interested in playing football than studying. His counselor suggested he go to trade school. “But that’s not what I wanted to do,” he says. Despite less than stellar grades, he wanted to go to college. “No one can take that passion from you.”

Crawford attended Prairie View A&M University, graduating magna cum laude with a BS in biology/chemistry. He went on to the University of Texas Medical School, where he earned his medical degree. After doing a surgical residency at Howard University Medical School and an NIH postdoctoral fellowship at the Center for Blood Research in Boston, Crawford elected to earn his PhD from Harvard University and pursue a career in biomedical research. He says he chose research over clinical practice because “I found out I was a what-if person. The sciences open up your creativity. Scientific tools are your paintbrush and paint. The lab is your canvas. With a medical degree, I looked at science from a different perspective — how can I help people?”

As a minority student in his PhD program, Crawford recalls, “I felt like I was walking through a cloud and the only way I knew I was going forward was [that] my feet were going forward. Everybody needs support, nourishing, encouragement. [They] need someone to say, ‘I can show you why you’re here.’ ”

“I take my acceptance to Harvard very seriously,” he continues. “Harvard takes people who are going to make a difference. How many people’s lives are you going to affect? I’m responsible to pay back. I think about it every day.”

In his lab, Crawford mentors students at all levels. In 2009, two high school students working there received scholarships to Morehouse College, the only historically black college for men in the country. “If I see that you’re a good person and you want to make an impact, come work in the lab,” he says. As director of the STARS program at BWH, and scientific advisor for the Harvard Catalyst Visiting Research Internship Program for medical students and the Summer Clinical and Translation Research Program for college students, he has worked with underrepresented minority students on research projects. “All had the same doubts about themselves, but left believing in themselves,” he says. “You try to touch as many people as you possibly can; inspire as many people as you possibly can.”

“We all need someone to tell us ‘you know you’re great; you know you’re gonna make it.’” For a large number of lucky students, Keith D. Crawford is that person.
**Student Profile**

**Knatokie Marie Ford**

Knatokie Marie Ford is well acquainted with the art of turning stumbling blocks into stepping stones. Becoming blind in one eye at the age of three inspired a strong curiosity about vision and blindness, which eventually led her to pursue a PhD in biomedical science at Harvard Medical School (HMS). But the transition from a historically black college or university (HBCU) to an Ivy League institution proved to be quite challenging.

“I think one of the biggest issues that I had coming to a majority institution after attending an HBCU [Clark Atlanta University] was adjusting to being a minority. Sometimes I felt really isolated and lonely,” Ford says.

She struggled to retain the confidence she once exuded, and after one semester, she took a leave of absence to reevaluate her life and career goals. Ford moved to Los Angeles to pursue acting, but primarily supported herself as a substitute teacher in a predominantly African-American middle school in the heart of South Central.

“Having that experience, and the time away [from school] gave me a greater appreciation for my educational opportunities and also made me feel responsible. It’s not just about me, but I also have to take ownership of the fact that I’m a role model,” she says.

After teaching for just over a year, Ford returned to resume her studies at HMS with a renewed vigor. She now works in the lab of Dr. Patricia D’Amore at the Schepens Eye Research Institute, where she is studying age-related macular degeneration. She plans to complete her PhD by spring of 2011 and focus on education and science policy.

Ford attended the 2010 Biomedical Careers Student Conference, which she says helped her feel comfortable expressing interest in non-academic career options and exposed her to people who could help her explore a variety of opportunities. She

---

**BSCP 20TH ANNIVERSARY**

CONTINUED FROM PAGE 1

Esq., of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

“The Biomedical Science Careers Project was indeed a project when it was first started in 1991,” says Alison Taunton-Rigby, PhD, OBE and BSCP board member who has been involved since 1996. “Joan Reede begged and borrowed resources to start the organization. In 2007, the name was changed to the Biomedical Science Careers Program to reflect the much larger scope, size and resources now available. BSCP was here to stay. Today it is a thriving organization, providing students of every race, ethnic background, gender and financial status with encouragement, support and the guidance needed for the successful pursuit of biomedical science and other science-related careers.”

“Helping to found and support BSCP was an important decision made in the early days of Genzyme. Our vision and intent was to recruit the best and brightest talent from all backgrounds, not only for Genzyme but for the benefit of the entire life sciences industry,” says Henri Termeer, president, chair and CEO, Genzyme Corporation, and BSCP board member since the beginning. “Twenty years later, we celebrate the success of BSCP and remain actively engaged and committed. Because of our involvement, we have become more successful in our efforts to bring diverse talent into our company at early stages of career development... Our experience has also increased our understanding of the need to nurture young people from diverse backgrounds, and, as Joan Reede has shown us, the value of encouragement and guidance along the way from experienced people who have earlier pursued the same pathways that today’s BSCP students have chosen for themselves.”

“I want to thank the many friends, colleagues and associates who have made these [last] 20 years possible,” Reede concludes. “It is through the giving of their time, knowledge and resources that BSCP has and will continue to ensure that potential is not lost, excellence is recognized and that opportunity is provided.”
Save the Dates

10th Annual New England Science Symposium
Friday, April 1, 2011
The Joseph B. Martin Conference Center at Harvard Medical School

Evening of Hope 2011, Celebrating BSCP’s 20th Anniversary
Thursday, April 28, 2011
The Boston Park Plaza Hotel

Summer Opportunities

Project Success places high school students (particularly under-represented minority and disadvantaged students) living in Boston or Cambridge, Massachusetts, at Harvard research sites to complete paid, mentored summer research projects, attend science and career development seminars, and enhance their speaking and writing skills. Application deadline is February 11, 2011. For information, contact Dr. Sheila Nutt, director of educational outreach programs, at (617) 432-4634 or sheila_nutt@hms.harvard.edu.

Harvard Catalyst: The Harvard Clinical and Translational Science Center Program for Faculty Development and Diversity at Harvard Medical School is accepting applications for year three of the Summer Clinical and Translational Research Program (SCTR) for college sophomores, juniors, seniors and the Visiting Research Internship Program (VRIP) for first- and second-year medical students. For information, contact Vera Yanovsky, program coordinator, at (617) 432-1892 or vera_yanovsky@hms.harvard.edu or visit www.mfdp.med.harvard.edu/Catalyst. The application deadline for both programs is February 22, 2011. Notification of program acceptance is March 31, 2011.

Knatokie Marie Ford

Continued from Page 3

mentions a panelist at one of the sessions, Michelle Hamlet, PhD, program director in National Institutes of Health’s (NIH) Minority Opportunities in Research (MORE) Division at the National Institute of General Medical Sciences (NIGMS), as having been particularly helpful. They met after Hamlet’s session, and Hamlet has been sharing ideas about career choices with Ford and offering guidance on navigating her career path.

Looking ahead, Ford has applied for the Presidential Management Fellows Program within the Office of Personnel Management in Washington, D.C. “If I could do anything that I know I would enjoy, it would probably pertain to outreach with Ivy League colleges and historically black colleges,” she says. Her first priority would be to not only make HBCU students just as prepared for graduate school as those from other colleges and universities, but more importantly, to help them feel prepared and confident enough to apply to schools like Harvard or Princeton. “Graduate school is hard enough as it is,” she says. “When you come into it already doubting yourself, it’s so much harder.”