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# BSCP

BIOMEDICAL SCIENCE  
 CAREERS PROGRAM

## NESS Keynote Speaker

### George Q. Daley, MD, PhD

GEORGE Q. DALEY, MD, PHD, will be the keynote speaker at the New England Science Symposium on April 8, 2018. Daley is dean of the Faculty of Medicine, the Caroline Shields Walker Professor of Medicine and professor of biological chemistry and molecular pharmacology at Harvard Medical School (HMS). An internationally renowned leader in stem cell science and cancer biology, he heads a laboratory at Boston Children's Hospital focused on identifying the principals of how stem cells contribute to tissue regeneration and repair, and improving drug and transplant therapies for patients with bone marrow disease.

Daley received his undergraduate degree from Harvard, *magna cum laude*, in 1982. He received a PhD in biology from MIT in 1989 and an MD from HMS, *summa cum laude*, in 1991. He began teaching at his *alma mater* in 1995. He was a hematologist/oncologist at Massachusetts General Hospital until 2003, when he moved to Boston Children's Hospital. In 2009 he became director of the Pediatric Stem Cell Transplantation Program at Dana-Farber/Boston Children's Cancer and Blood Disorders Center, a post he held until becoming dean of HMS in January 2017. Among numerous other awards, in 2004 Daley was an inaugural winner of the National Institutes of Health Director's Pioneer Award for highly innovative research and received the E. Donnell Thomas Prize from the American Society for Hematology.

Daley says he has made diversity a priority of his deanship. To treat disease effectively, he says, "We need to have a diverse

body of practitioners who are sensitive and culturally competent in the delivery of care." It helps to have people from many backgrounds.

In his lab, Daley has always recruited scientists with widely varying backgrounds. "It's an international melting pot," he says. "I can't fill my lab with home-grown Americans. I recruit bright and ambitious young people from Europe, Asia and India. At any given time there are 8 to 15 languages spoken in my lab. I've always sought to recruit a diverse pool here in the US, and I'd like to make it more attractive to students growing up in this country."

One way to do this, he believes, is to create more opportunities. For his part, every summer Daley reserves several spots for college and high school students in the lab. "I hope they get bitten by the bug," he says. "[Maybe] they'll see the joy of discovery and the connection between discovery in the lab and the effect on patients down the road. Students are our pipeline to the future."

"I am so impressed and want to celebrate BSCP," Daley continues. "We have a problem attracting underrepresented minorities to biomedical science. I am surprised we can't do better in impressing students that a career in science can be joyful." A program like BSCP, he maintains, provides enrichment, models behavior and offers group support. The Biomedical Science Careers Student Conference and New England Science Symposium present opportunities for students from underrepresented minorities to see, "there are people like me committed to science and we'd like to emulate that," he says.



GEORGE Q. DALEY, MD, PHD

Daley laments that in the US today too many young people are "enticed by Wall Street," fearing there are not enough opportunities in the sciences. To students concerned that embarking on a career in the sciences now may not be worth the challenges, Daley's message, drawn on his experience, is: "Life as a scientist is a long one. I started 40 years ago. I've seen waxing and waning, ebb and flow of support. But support will always be available. Scientific research is a driver of the economy. [It's] a form of public service that's enriching." ■

## Conversation with the Board

### Djadé Soumana, PhD

DURING HIS ADOLESCENCE IN Niger, Djadé Soumana, PhD, dreamed of attending Boston University (BU). The Manhattan native, whose father moved the family to his birthplace after he retired, met several BU study abroad students when he was in high school and formed an idealized vision of the northern institute of higher learning.

From an early age Soumana was interested in becoming a physician. He entered university in Niger to study medicine, but he wasn't happy. Political unrest and frequent strikes shut down his school for weeks, sometimes months, on end. Fearing that "It would take me 10 years to complete a seven-year program," Soumana moved to Massachusetts to attend school — thinking he could finish medical school in four years.

He was in for a surprise. Soumana did not realize, before arriving in the US, that he would need a BS before he could even apply to medical school. Laughing now, he says he "started small." Soumana attended Bunker Hill Community College, then the University of Massachusetts at Amherst (UMass). His medical school aspirations changed when he did an independent study at UMass. "I fell in love with research," he says. "I loved the rigor that was required. [I'd] put on headphones, zone out but zone into the research and solve the puzzle. Because research is a puzzle."

Soumana attended his first BSCP conference in 2008, when he was an undergraduate at UMass and "saw tremendous value in it." He also attended the New England Science Symposium. He did not present a poster at the first symposium but felt he was missing out and determined to return as a presenter, which he did in 2010.

After his first year at UMass, he got a summer internship at Massachusetts General Hospital (MGH), studying the

process of cell death and how the process is involved in cancer. After he graduated, Soumana got a job as a research associate at Harvard Medical School, where he studied/developed an intestinal cancer stem cell model to understand homeostasis in fruit flies. This led him to pursue a doctoral degree.

For his doctoral studies, Soumana shifted focus to small molecule cells. He returned to UMass, this time the Medical School, where he worked with Celia Schiffer, PhD, studying drug resistance in AIDS and hepatitis C. It was the only program he applied to. By the time he graduated from UMass Medical School, Soumana was awarded over \$200,000 in merit-based grants and awards including a BSCP HOPE Scholarship and a Ruth L. Kirschstein National Research Service Award for Individual Pre-doctoral Fellows from the National Institute of General Medical Sciences (NIGMS) in 2013.

"I credit BSCP for polishing my scientific professionalism in helping me fine-tune the career path through workshops," Soumana says. "When I applied to Harvard Medical School for a job, the professor receives hundreds of resumes monthly. How do you grab attention? That's what you're going to learn at BSCP."

He continues, "I remember interacting with a judge at NESS, Dr. Keith Crawford. We communicated for years and he helped me develop and fine-tune a strategy for my career: Stick with fly biology but expand techniques that you learn. The use of that strategy continued through my postdoc. BSCP taught me how to get soft skills, networking, polished my resume, how to start out."

After working as a Postdoctoral fellow at the National Institute of Allergies and Infectious Diseases, Soumana stepped from the lab into industry, taking a



DJADÉ SOUMANA, PHD

position as a consumables product specialist with GE Healthcare Life Sciences, helping companies find solutions for their drug discovery needs. And he recently became the newest BSCP Board member. "Now that I'm working, I feel a duty to spread the word with my employer and the rest of the life sciences community," he says. "I see myself as a champion of BSCP." Soumana will be an advisor at the Biomedical Science Careers Student Conference in April. He sponsored a table at the 2017 Evening of Hope and invited some GE group leaders as his guests. "They got it," he says. His goal for 2018 is to try to solidify some partnerships between the two organizations.

And a long-held dream is finally coming true. In January 2017, Soumana began an MBA program at the Questrom School of Business — at Boston University. ■

## Where Are They Now

### Julia Ann James, DPhil

JULIA ANN JAMES, DPHIL, HAS accumulated a lot of firsts in her life. She was the first person in her immediate family to attend college; the first to attend graduate school; the first in her entire family to become a Rhodes Scholar and the first to take an interest in the sciences. With a BS from Hobart-William Smith Colleges and a doctorate from the University of Oxford, James is currently a postdoctoral associate in AIDS prevention at Nova Southeastern University (NSU) in Fort Lauderdale, Florida.

The daughter of Guyanese immigrants, James grew up in the East Flatbush Brooklyn neighborhood. As an undergraduate chemistry major, James attended her first BSCP conference in 2002 as a sophomore. James Sherley, MD, PhD, was the mentor at her table and they kept in touch for several years. Shirley Ann Jackson, PhD, inventor and president of Rensselaer Polytechnic Institute, who was the opening keynote speaker, made a lasting impression. “[She] is one of my heroes,” James says. “I was very inspired.” After the conference, James decorated her dorm room with photos of Jackson. A quote from Jackson still remains at her desk, “I would offer this advice to any young woman inspired by the possibility of discovery and innovation: Do not let others define who you are. Define yourself. Do not be limited by what others expect of you, but reach confidently for the stars.”

During her senior year in college, James was named a Rhodes Scholar. The following year, she became one of the first Rhodes Scholars to study at Oxford under a joint Rhodes-NIH-Oxford Biomedical Scholars program. James first studied integrated immunology, receiving a postgraduate diploma before completing her doctoral thesis in the area of HIV immunology.

James taught at the University of Richmond as a predoctoral teaching fellow while simultaneously completing her dissertation, which she successfully defended in 2010. She followed a burgeoning interest in public health to work as a consultant for the Brooklyn Health Disparities Center and the Arthur Ashe Institute at SUNY Downstate Medical Center in Brooklyn, New York. She also worked as an outreach coordinator for the New York City Board of Education’s Mentoring Program, the oldest public mentoring program in NYC.

In 2012, James moved to San Francisco to begin a prestigious postdoctoral Traineeship in AIDS Prevention Sciences (TAPS) fellowship at the University of California San Francisco, which enabled her to earn a Master’s in Global Health Sciences and learn epidemiological and qualitative research skills. After a brief sabbatical in the United Kingdom, James returned to the US and began work at the new Cell Therapy Institute at NSU’s year-old Center for Collaborative Research. She has been in Florida since late 2016.

James’ primary interests are higher education, mentoring and research, and she aspires to conduct research and provide training and mentorship in resource-limited countries. “I envision myself doing a mix,” she says. To that end she has been working to grow her skillset. She is very interested in “nurturing students in resource-limited countries to do research... and help them publish.”

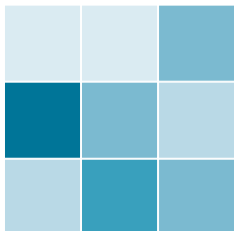
James is also thinking about writing a guide — she has yet to determine her platform — for people at the beginning of their science journeys. “For people starting out, the first time they meet a scientist might be when they get to college. They don’t know what to expect,” she says. “Nobody teaches scientists how to mentor. There can be [an] element of hazing for



JULIA ANN JAMES, DPHIL

scientists. There are special needs for first-generation college students [and those from] lower socio-economic backgrounds who have to give up jobs” to go to school. She’d like to present them with both general and targeted advice.

While James is still the first in her immediate family to benefit from higher education, she is no longer the only one. Two of her sisters are now nurses and one is currently in college. “I’ve inspired others,” James says. “The expectation is that they’re going to do well.” Under her guidance, many outside her family are likely to do the same. This spring, James will be a student advisor at the BSCP conference. The organization has given her so much. “I’m looking forward to giving back.” ■



## **BSCP** Biomedical Science Careers Program

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### **SAVE THE DATES**

#### **Biomedical Science Careers Student Conference**

##### **Keynotes**

**Freda C. Lewis-Hall, MD, DFAPA**  
Executive Vice President  
and Chief Medical Officer  
Pfizer Inc.

**Jeff Leiden, MD, PhD**  
Chairman, President  
and Chief Executive Officer  
Vertex Pharmaceuticals

**Michelle A. Williams, ScD**  
Dean of the Faculty  
Harvard T.H. Chan School  
of Public Health

**The Westin Copley Place Boston**  
Friday, April 6 and  
Saturday, April 7, 2018

#### **New England Science Symposium**

##### **Keynote**

**George Q. Daley, MD, PhD**  
Dean of the Faculty of Medicine  
Harvard University

**The Joseph B. Martin Conference Center  
at Harvard Medical School**  
77 Avenue Louis Pasteur  
Boston, Massachusetts  
Sunday, April 8, 2018

#### **Evening of Hope**

##### **Honorees**

**Jeff Leiden, MD, PhD**  
Chairman, President  
and Chief Executive Officer  
Vertex Pharmaceuticals

**Josef von Rickenbach**  
Chairman and Chief Executive Officer  
PAREXEL International Corporation

##### **Co-Chairs**

**David P. Meeker, MD**  
Chief Executive Officer  
KSQ Therapeutics

**Lydia Villa-Komaroff, PhD**  
President  
Intersections SBD

**Seaport Hotel**  
Boston, Massachusetts  
Tuesday, April 24, 2018



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