

# BIOMEDICAL SCIENCE CAREERS PROGRAM

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### **SAVE THE DATE**

**Evening of Hope**September 22, 2021
<a href="https://www.bscp.org/event/evening-of-hope">www.bscp.org/event/evening-of-hope</a>

**Skills Workshops Webinar Series** Fall 2021

www.bscp.org/event/skills-workshopsfor-college-and-high-school-students

For information contact
Hollie Borek DeSilva at
Hollie DeSilva@hms.harvard.edu.

## **REMINDER**

Please remember to update your contact information at <a href="https://www.bscp.org">www.bscp.org</a>.

Click on "Update Contact Information" and then "Current BSCP Students/Fellows and Alumni"

# CONVERSATIONS WITH THE BOARD

Andrew Plump, MD, PhD, President, Research and Development, Takeda Pharmaceuticals Company Limited

Andrew Plump, MD, PhD, president of research and development at Takeda Pharmaceuticals, was lucky. When his childhood dream of playing shortstop for his beloved NY Mets dissolved into the reality that, as he says, "I had absolutely no athletic talent," he had a backup plan. By high school he had developed an abiding interest in medicine. And that was a field for which, as it turned out, he had not only passion but enormous talent.

One of the newest members of the BSCP Board of Directors, Plump received a BS in biology from MIT. As an undergraduate, he says he was very focused on becoming a clinical physician. "I loved the art of medicine; I loved the human piece of it." He went directly from MIT to medical school at the University of California, San Francisco (UCSF). Once there, he recalls that after the first two weeks, "I missed the science. That was the turning point for me, where I decided I would try to work my way back into a lab." For the next 15 years, Plump trained in medicine and science, taking time off from medical school to earn a PhD in cardiovascular genetics at Rockefeller University.

"I had always imagined I would march down the path of an academic physician scientist," he says. "Everything I had done in graduate school, medical school, my training was directed in that way." After graduating from medical school, instead of a three-year residency, Plump did his in two, then began a postdoctoral fellowship in medical genetics under Marc Tessier-Lavigne, whom he describes as "a brilliant neurobiologist." (Tessier-Lavigne is now president of Stanford University.) He began the fellowship



Andrew Plump, MD, PhD, president, Research and Development, Takeda Pharmaceuticals Company Limited

thinking he was on his way to becoming a disease biologist but realized his work was leading him toward becoming a developmental biologist.

By 2001, Plump recounts, "I was soul searching a bit." He bumped into an old friend, a Harvard-trained physicianscientist who by then was doing clinical science at Merck. Plump traveled to New Jersey, where he spent a couple of days meeting with his friend and several of his colleagues. "It felt like the right move for me," Plump says. "I realized I wasn't looking to move to industry; I was looking to move to Merck."

Though the move felt fated, Plump admits that the transition from academic medicine "was brutal." He and his wife were about to buy their first house, have their third child and, he says, "I felt I'd accomplished a lot, but I was stepping into a job where I had no idea what I was doing." Adding insult to injury, after more than a decade in California, he was cold. Within three to six months, he says, "I started to

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really get it. I got a warm coat and a scarf. I started to really love the teamwork. I believed all the training I had done and the complexity was designed to put me in a role like the one I was in because it brought together all of my scientific and personal skill sets."

Plump stayed at Merck for 10 years, the last six as head of a research group in cardiovascular medicine. When he was offered a job as senior vice president of Research & Translational Medicine, and deputy to the president of R&D at Sanofi in Paris, he had been thinking it was time for a change. He was with Sanofi for two-and-a-half years, until he was lured to Boston by Takeda. He describes his current position as "the epitome of the ability to make an impact for patients."

The Takeda research chief was first introduced to Joan Reede, MD, MS, MPH, MBA, president and chair of BSCP, by a colleague in 2012. But it was BSCP Board member Bill Sibold, vice president and head of Sanofi Genzyme, who invited him to join the Board in 2020. The two have been friends since Plump's time at Sanofi. Sibold's invitation led to a conversation between Plump, Reede and BSCP executive director Hollie DeSilva about some of the organization's diversity efforts, which paralleled those at Takeda. "What an organization like BSCP is set up to do is to enact change that's generational," Plump says. "It's not something that happens overnight. You need to have resiliency, positivity and patience."

Similarly, he advises students, though there are real, structural inequities that exist, don't dwell on obstacles. Focus on education and believe in yourself. "If you aspire to become something or somebody, never give up on that dream. And as each of us are successful in that journey, we have an obligation to those that follow in our footsteps to make the world a better world and a more equitable world."

Plump joined the BSCP Board just as all in-person gatherings were halted due to the COVID-19 pandemic, so he has yet to attend an event live but looks forward to his first opportunity.

# **COVID-19 EDUCATIONAL RELIEF FUND**

In partnership with <u>Life Science Cares</u>, <u>Cytiva</u> and an anonymous sponsor, BSCP has established the COVID-19 Educational Relief Fund. The goal of the Fund is to provide relief in the form of grants up to \$1,000 to BSCP high school, college (two- or four-year) or graduate/professional school students whose education is being impacted by the pandemic, and to alleviate some of the obstacles that may block the students from being successful in their educational pursuits. Items and services that qualify as relief include but are not limited to tuition, books, technology, supplies and increased home internet services.

Application requirements are the following:

- Letter of request/statement of need by the student, including the grant amount requested and items/services to be purchased
- 2. Letter of support/recommendation letter from a strong personal reference with knowledge of the student's academic achievement, such as a guidance counselor, teacher, professor or mentor
- 3. Proof of enrollment in an educational program

Applications are accepted on a rolling basis and are reviewed at the end of each month.

Grantees are notified of their acceptance by mail. Once approved, grantees must provide proof of payment to BSCP for requested expense(s). BSCP will issue a reimbursement check within 10 business days of receiving proof of payment. If invoiced, BSCP can pay for item or service directly.

Already the Fund is making an impact. Noted one grantee, a PhD candidate who also volunteers for an organization that supports disadvantaged and underrepresented undergraduate students:

I share this to say thank you... Knowing that I have someone or, in this case, a whole organization looking out for me lets me continue looking out for others, and together, we can have a domino effect. My gratitude to you is genuinely incommunicable. I promise to pay this grant forward in the future. When eventually, I earn my PhD, my degree may have my name on it, but it will have your fingerprints, and all of those who made this grant possible.

Anyone interested in the Fund can apply <u>HERE</u>. Contact Hollie DeSilva, BSCP executive director, at <u>hollie desilva@hms</u>. harvard.edu, with any questions. ■

# **2021 EVENING OF HOPE**

BSCP will celebrate its 30th year of success in our community at the 24th annual Evening of Hope on Wednesday, September 22. For the second time in as many years, due to COVID-19, the event will be held virtually.

Co-chairs of the event will be Bill Sibold, executive vice president and head of Sanofi Genzyme, and BSCP board member; and Kevin Churchwell, MD, president and chief executive officer, Boston Children's Hospital. We will honor Yvonne Greenstreet, MBChB, MBA, president and chief operating officer, Alnylam Pharmaceuticals, and a BSCP board member; and Myechia Minter-Jordan, MD, MBA, president and chief executive officer, DentaQuest Partnership for Oral Health Advancement and Catalyst Institute.

As BSCP's only fundraising event, Evening of Hope provides the critical funds needed to ensure that all programming is offered at no cost to participants. As a result of this event, more than 14,000 students and more than 1,225 postdoctoral trainees and junior faculty from across the country have participated in BSCP programs.

At the 2021 event we will congratulate student recipients of the \$7,500 BSCP Hope Scholarships and induct new members into the BSCP Honor Roll, which recognizes individuals who volunteer their time again and again to support the BSCP community.

## **BSCP STUDENTS**

# Mario Carrillo, MD Candidate, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo

With two parents working in health care, Mario Carrillo became interested in the field when he was young. He explains that his father, a physician, "tried to foster an inquisitive nature in my sister and me when we were growing up. That was the spark. Seeing him as a physician inspired me," he says, highlighting his father's role as the source of trust and comfort for family members who reached out to him with their medical needs and concerns.

Carrillo's parents met when they were both working at Coney Island Hospital. His father, from Guatemala, was training to be a physician. His mother, from Ukraine, was a surgical assistant. Carrillo was born in Staten Island but the family moved to New Hartford, NY, outside Utica, when he was five because his father got a job at a hospital there. Initially his mother commuted four hours to her job in New York City. But eventually the commute became too much and she stayed at home with Carrillo and his younger sister.

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Andrea Pyenson, CorPublications

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"For a long time I told myself, "I want to be a doctor," but I didn't really know what that meant until I got to college," Carrillo says. To him it meant helping people and being an advocate. But when he got to Cornell University, where he majored in biological sciences, "I understood it would be a lot of work." He also really fell in love with the medical field through his volunteer work at a medical center in Ithaca and by shadowing doctors.

But the physician-to-be has never been just about the science. "There are two halves of me, medicine and science; and I can't live without the humanities," Carrillo explains. "For me, that is mostly music." Carrillo started playing piano when he was about seven. At his mother's urging, the family acquired a piano shortly after moving to New Hartford. Nobody in the family played, but she had always wanted to. Her son took to the instrument immediately, at first picking out tunes on his own, but soon taking lessons.

When Carrillo was in the fourth grade, the band conductor at his school mentioned that there was a need for somebody to play the trombone. He volunteered and "I fell in love" with the brass wind instrument. He has continued playing both, focusing more on the trombone. In college he toured several countries with the symphony orchestra and wind symphony, and he coordinated jazz nights and played in the orchestra pit for campus musicals. He teaches piano whenever he can. "The joy about playing music is it's not only what you hear, it's how it makes you feel," he says. Throughout his studies, music has been "a savior."

After graduating from Cornell, in 2017, Carrillo attended graduate school at Tufts University School of Medicine, receiving an MS in biomedical science in 2020. "In college, there were a lot of times when I had my doubts about a medical career," he admits, referencing periods of self-doubt. "I took time to strengthen myself academically and in every way that could make me a better doctor. Little did I know that I opened the door to a whole set of opportunities."



Mario Carrillo, MD expected May 2024, Jacobs School of Medicine and Biomedical Sciences

While he was at Tufts, Carrillo attended the 2018 Biomedical Science Careers Student Conference, where he was matched with Vincent C. Smith, MD, MPH, division chief of newborn medicine at Boston Medical Center and associate professor of pediatrics at Boston University Medical School. "I feel really blessed about the mentor I connected with there," Carrillo says. "He played such a pivotal role in setting my trajectory toward medical school."

One year into his medical education, Carrillo has no doubts that he is on the right path. After graduating from Tufts, he says, "I had the good fortune to get into research that was very relevant for human medicine." He also shadowed Dr. Smith. His experience left him feeling, "This is what I want to do, and I knew [that] I am capable of this."

Carrillo is interested in surgery, possibly with a subspecialty in trauma, pediatrics or vascular medicine. "I've been exposed to so many things that have influenced what kind of mark I want to leave," he says. "I've always been attracted to the humanistic side of medicine. In an ideal world, I'd practice medicine and research that can help people who are suffering the most in our society."