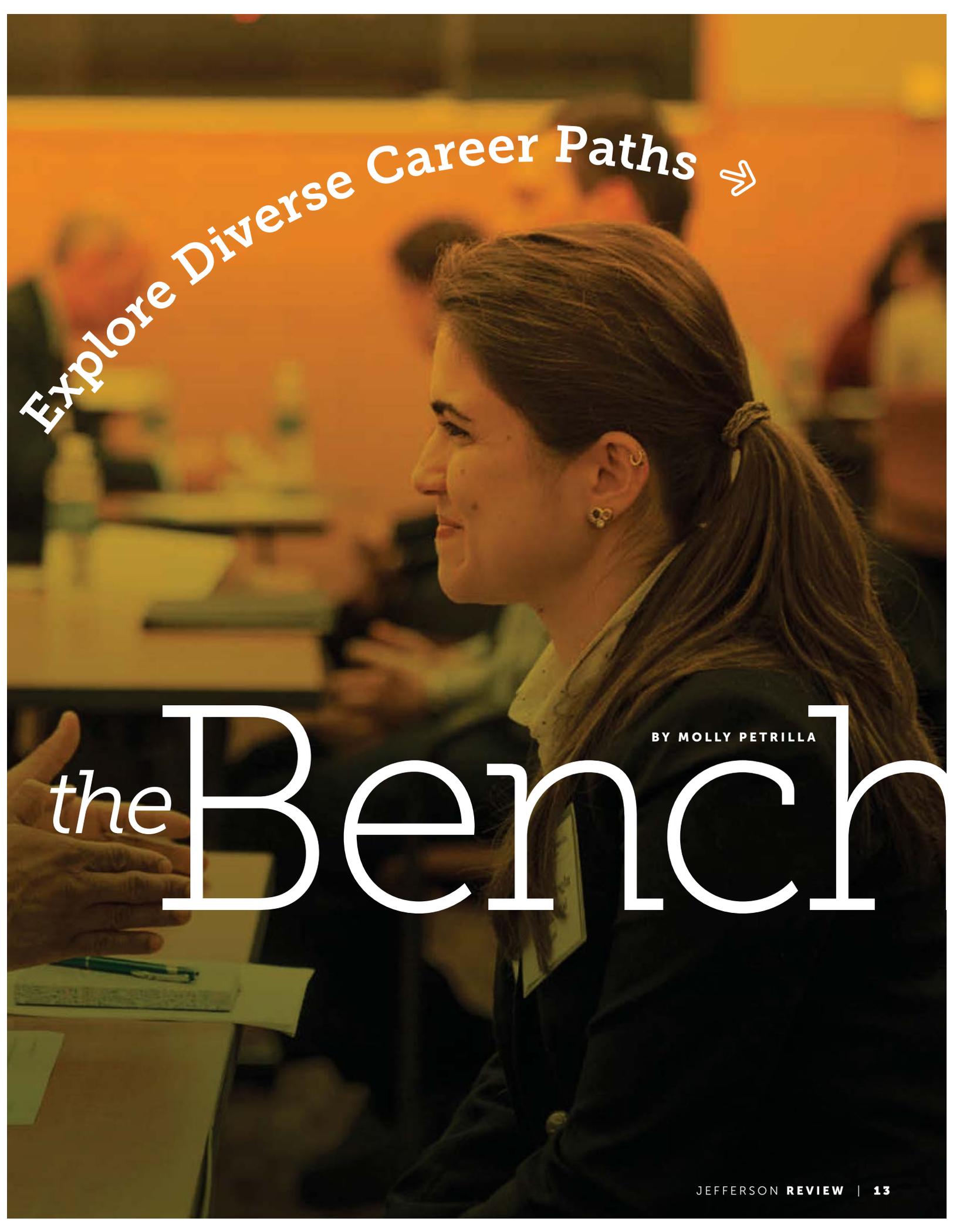




BizBio Helps Student Scientists

Beyond

Aubrey Watkins III, PhD '12,
speaks with postdoctoral fellow
Senem Kurtoglu, PhD, at a
BizBio speed-networking event.
Photo by Roger Barone.



Explore Diverse Career Paths ➔

the Bench

BY MOLLY PETRILLA

David Hoang still remembers the moment that led start BizBio—Jefferson's student-run business



It was the summer of 2012.



They were two years into their PhD programs in the Jefferson College of Biomedical Sciences and worked in the same lab, studying prostate cancer's spread and its resistance to drugs. Sometimes they'd get to talking.

Hoang was taking an elective in biotechnology venture management through JCBS —“a whole new world for me,” he remembers—and during one of their chats, he mentioned it to Talati.

She was having her own dilemma. It turned out bench science just wasn't for her. She wanted to pivot toward the business side instead, but “I felt like there just weren't options available to learn how,” she says now.

Wouldn't it be great, they agreed, if science students had more opportunities to learn about working as consultants or entrepreneurs or in biotech? “We figured, if we're feeling this way, maybe other people are too,” Hoang says.

It turns out they were.

Three years in, BizBio has cemented its place on campus. The group has withstood growing pains and leadership changes—including inaugural president Talati's graduation and soon Hoang's. It's served more than 150 students and held numerous events. As faculty adviser Jeffrey Joseph, DO, puts it: “The students are really the leaders. They're working hard, they're well-organized, and they're into it.”

Making It Happen

Soon after that first conversation in the lab, Hoang and Talati began to ask around. They found other students, many on the cusp of graduating with PhDs, who “voiced very similar thoughts: concerns about staying in academia, about not having the sustained interest to carry them through a career,” Hoang says.

He outlines the traditional path through academia for most doctoral science students: finish your PhD, complete a postdoc, land a faculty position, secure research funding, lead a research program in your specialty area and then get tenure.

“But some students realize they just don't like the day-in, day-out process of doing science,” Hoang says. “And for

William Troetel, PhD '72 (center), presented at a BizBio event in October 2015. Surrounding him are Michael Whitley, Gabriela Cosma, Ileine Sanchez, Rohan Keshwara, Aysha Ejaz and Lisa Kozlowski, PhD.

Photo by Robert Neroni.

him and Pooja Talati to and biotechnology group.

others—and I put myself here—we like that process, but we like other things as well.”

Some of the students Hoang and Talati talked with had already investigated careers outside of academia. Some had even gone through job interviews or met with successful entrepreneurs. “But they were going about it individually,” Hoang adds. “We realized how beneficial it could be for us to pool our collective experiences.”

Hoang, Talati and four other students began meeting to discuss their goals for BizBio. “We wanted it to be more than a club to hang out and chat,” Hoang remembers. “We wanted to have active offerings.”

They registered as a student organization in late 2012 and began spreading the word. “Anything we could get involved with on campus, we were there,” Talati says. “And we met with anyone who would listen to us.”

Hoang remembers early disagreements among the group over its direction. Talati was interested in medical writing and consulting. Others wanted to start their own companies. They finally agreed to keep it “as broad as possible,” Talati says.

“We don’t have any restrictions on who can join the group,” Hoang adds. “We’re large enough that we can accommodate any interest.”

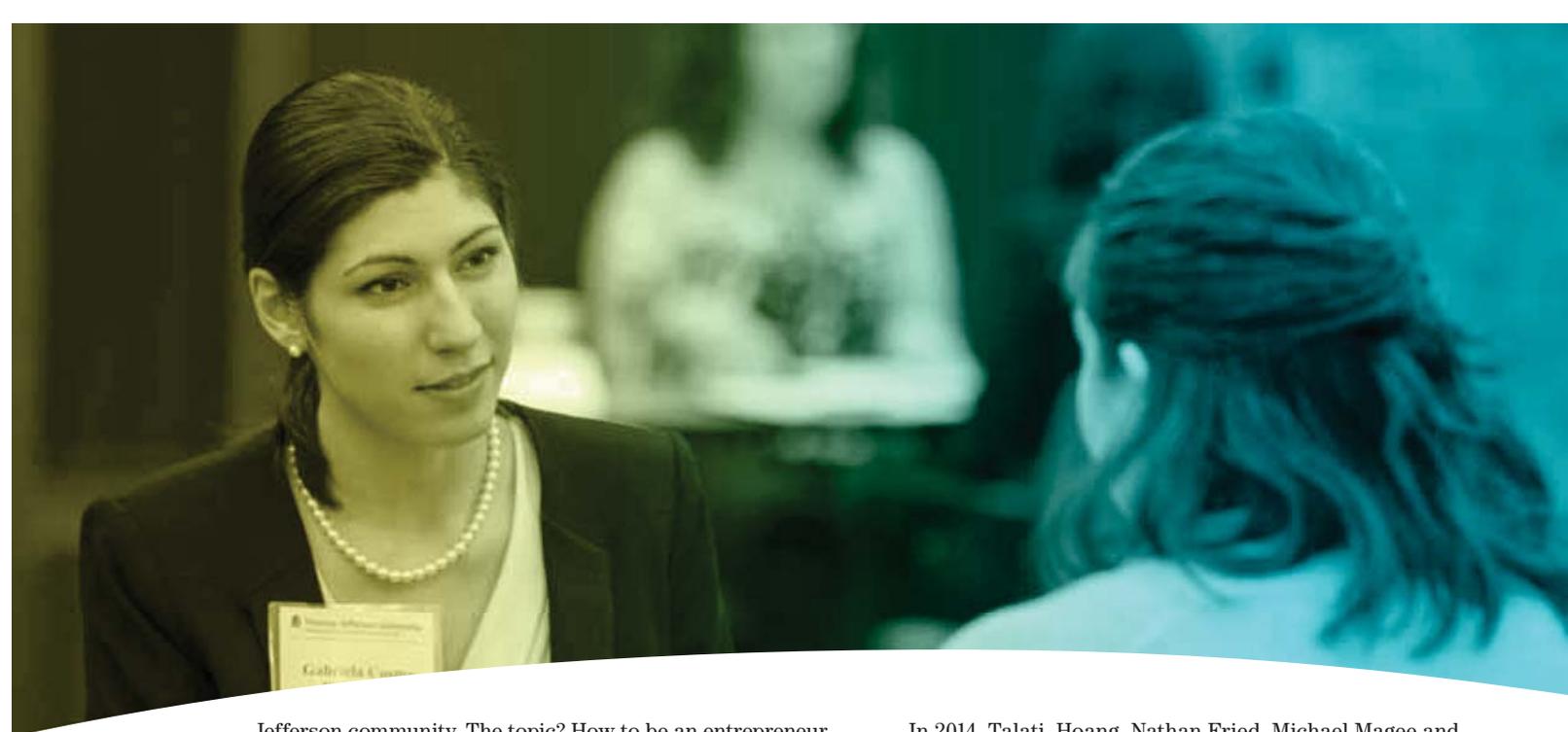
Mentors and Networks

Current BizBio president and JCBS PhD student Gabriela Cosma defines the group’s mission as “exposing members to careers at the interface of business, health and science.” For that reason, a BizBio event can take many different forms.

One of the first that Talati and Hoang organized has become an annual favorite: a networking social with experts from biotech, pharmacy and other areas where science and industry meet.

But Hoang says it was a panel discussion about a year into BizBio that really got its name out to the entire





Jefferson community. The topic? How to be an entrepreneur.

“We weren’t sure how the turnout would be,” he says, “but it was huge, and it wasn’t just our core audience of master’s and PhD students.” Faculty members came. Public health students and medical students and pharmacy students came.

As current president, Cosma says she’s focused on planning experiential events. Last year she and a few other BizBio officers competed in a National Institutes of Health entrepreneurship startup challenge. They were semifinalists. Now Cosma is working to bring the competition organizer to campus for an info session, and to hold follow-up sessions for coaching Jefferson teams, proofreading their business plans or just listening to their pitches.

Last year she helped former president Crystal Kraft organize a five-hour workshop called Selling Your Science. They brought in a consultant who explained how scientists can better communicate their work to a variety of audiences.

“He was teaching us the skills and personality qualities companies are looking for,” Cosma remembers. “Basically, it’s about knowing how to play in the sandbox.”

Whether it’s an entrepreneurship panel, a career development workshop or a meet-and-greet, Talati says one of BizBio’s top goals has always been networking—a skill that’s not generally taught in class, but a critical one. As Joseph notes: “The days of a scientist sitting in the lab independently are long gone.”

‘The Bigger Picture’

Hoang says that when he started his PhD at Jefferson in 2010, conversations like the ones in BizBio weren’t happening on campus.

“There was a stigma for people not pursuing the academia path,” he says. “They were seen as less dedicated, or that their work wasn’t up to par. It’s not completely gone, but now there’s more awareness of what else people can do with these degrees.”

In 2014, Talati, Hoang, Nathan Fried, Michael Magee and Jeff Fineberg—all BizBio officers and JCBS graduate students—published a paper in *Technology Transfer and Entrepreneurship* titled “A Perspective on PhD Career Outlook: Training, Mentoring and Utilizing a New Generation of STEM [Science, Technology, Engineering and Math] Doctoral Degrees.”

“We strongly believe that STEM graduate programs require a retooling of their training approaches to address the demands of today’s labor market,” they wrote. “The current model must adapt to the reality of limited academic positions and decreased research funding, as well as accommodate a large pool of students at all graduate levels entering the workforce.”

They made recommendations, including an emphasis on career development, alumni mentorship and more dual-degree programs. There’s even a section on BizBio, used to illustrate how students can lead change. “It was another venue to get our message and information out there,” Hoang says of the paper.

But he also says things are already changing. He’s met first-year students who knew about BizBio before they even got to campus—and who know they won’t be pursuing careers in academia.

“I think BizBio is fitting into the bigger picture for Jefferson,” he adds, citing Jefferson president and CEO Stephen Klasko’s commitment to innovation and entrepreneurship.

BizBio’s efforts also align with the work of Lisa Kozlowski, PhD. As associate dean for student and postdoctoral affairs at JCBS, she organizes career seminars, lectures and professional development workshops for Jefferson’s graduate students and postdoctoral fellows. In the process, she often brings in speakers similar to the ones BizBio hosts.

Kozlowski helped Talati and Hoang establish BizBio and still serves as a faculty adviser. She came to Jefferson 12

"Without BizBio, I probably would have gone down a more traditional route and maybe years down the line, found out I was dissatisfied."



Left: BizBio president Gabriela Cosma.

Photo by Roger Barone.

Below: Rohan Keshwara greets William Troetel, PhD '72. Photo by Robert Neroni.

Below Right: Touraj Abdollahi, PhD '04, and student Ileine Sanchez.

Photo by Roger Barone.



years ago but says she can't imagine a group like BizBio succeeding back then.

"I think it was just the right timing," she adds. "Although things were happening on campus before, the innovation and business side of science didn't start exploding on campus until a few years ago. It was a time that something like BizBio was going to be much more accepted."

After Biz

Talati finished her PhD in biochemistry and molecular pharmacology in April 2015. In May, she began working as a medical writer for a marketing and communications agency in New York.

Her funky SoHo office doesn't look anything like a lab. But she's decided to use her PhD there because "I need to be involved in a career where I'm able to communicate and make change," she says.

Hoang is getting ready to graduate from his MD/PhD program this spring. He plans to work for a life sciences management or strategy consulting firm. Eventually he'd like to lead a biotech company.

"Without BizBio, I probably would have gone down a more traditional route and maybe years down the line, found out I was dissatisfied," he says.

Other BizBio alumni now work as consultants, as writers, as scientists for biotechnology companies—and yes, as postdoctoral researchers in academic labs.

This past fall, Talati came back to campus for a BizBio event—her first as an alumna. It was the same networking social she helped launch in 2012, only this time she was on the opposite side of the table.

When newer members heard that she'd co-created BizBio, the praise was swift: *You've opened my eyes to so many different options. You've given me the opportunity to do so much more with my degree. Even you've changed my life.*

"This was something I did because I wanted to learn more about these things—it was selfish, really," she says. "The fact that it's changing even one person's outlook now: that's amazing. It's the most gratifying thing."

"I graduated and landed my dream job," she adds. "And I truly believe BizBio helped me get there." ⇐