

Q&A: Trity Pourbahrami helps scientists communicate their work

After a foray into international health and social welfare, she returned to the physical sciences. She is currently at the Moore Foundation.

By **Toni Feder**

In college, Trity Pourbahrami wanted to “think like a physicist” to better understand the human body. At the University of British Columbia, she double majored in physics and physiology. After graduating, she took a job in international health that took her to Armenia, Azerbaijan, and Georgia.

Some years later, and with a graduate degree in social welfare and public administration, Pourbahrami circled back to physics. Starting in 2009, she spent a decade at Caltech as director of communications in the Division of Engineering and Applied Science. And since late 2019, she has been a communications officer at the Gordon and Betty Moore Foundation.

Pourbahrami says that her career path has been guided by her “superpower” to connect with people and by the nexus of “preparation and opportunity.”

How did you get into physics? And physiology?

I was in the first official class of Science One at the University of British Columbia. The approach was to select a few of us who were good at math and science in high school to spend our first year as undergraduates studying the sciences combined. So, for example, we studied waves from the perspectives of physics, math, and biology. We thought about how the sciences come together. [For more



▲ Trity Pourbahrami (Photo by Tupou Tongilava.)

on Science One and similar programs, see *PT*'s October 2021 article "Undergraduate integrated science programs foster interdisciplinary and personal connections."]

After that incredible training, I got a summer fellowship working in an NMR lab studying how creams would be absorbed by the skin. That's what spurred me to want to think like a physicist but apply the thinking to the human body.

What did you do after college?

I was excited about science, but I wanted to know why it mattered. I took a job in Ottawa with the Canadian Society for International Health, where I helped build relationships and manage a project that involved the World Health Organization, the Canadian International Development Agency, and

the Ministries of Health of Armenia, Georgia, and Azerbaijan. It opened my eyes to how what I considered to be accurate health information was seen differently by different cultures. For example, in those South Caucasus nations, before they became independent, they were told by authorities that they could have *X* cases of tuberculosis in their region, and if they reported more, they would get in trouble. I realized that to change that takes more than science and engineering. It's a cultural change. It's conflict resolution. It was totally outside of what I had studied. The experience really shaped me.

My personal experience turned out to be really helpful too.

What about your experience was helpful?

My family is from Iran. I was three

years old in 1979 when the Islamic Revolution happened. I lived through the Iran–Iraq War. My father is an open-minded man who did not want his daughters growing up in a nation that valued them less than boys. We are Zoroastrian, and it was hard being a religious minority in Iran. My parents decided it would be best to find a way out. I was 11 when we moved to Canada.

In Armenia, Azerbaijan, and Georgia, not only was my language a plus—I speak Farsi, English, and French—but my background as a Zoroastrian was also a plus. It was a point of connection with people there. My cultural experience opened doors that would not otherwise have opened.

What did you do next?

I could have continued an international health path. But I had already met the love of my life, Peter Capak. He was working on his PhD in astrophysics in Hawaii. I left Ottawa for Honolulu, where I planned to get a graduate degree in public health from the University of Hawaii. But when I landed in Honolulu, the school had lost its accreditation for public health.

At first, I was lost. But I ended up meeting people, including Susan Chandler, the director of human services in Hawaii. She was starting a new program that would expose heads of finance, heads of police and fire, and others to what social services mean. To me, it was a way to understand the true holes and barriers to building community. I got my master's degree in the new program, social welfare and public administration.

At that point, Susan was on me to get a PhD. But this was a decision point. Peter was finishing his PhD. If I stayed to get a PhD, we would be apart. And I was worried about the two-body problem: How would we get two jobs in the same



▲ Trity Pourbahrami (left) with anthropologist Andrea Buitrago (walking, front) and Moore Foundation program officer Maria DiGiano (walking, back) in the Colombian Amazon to learn about locally led efforts to protect freshwater ecosystems. The visit was part of the foundation's Andes–Amazon Initiative. (Photo by Trity Pourbahrami.)

location for two PhDs? In 2004, he got a postdoc at Caltech, and I moved with him.

I started consulting. For about five years, I worked with different groups, including the Western Justice Center Foundation, Women at Work, and UCLA. I trained the Pasadena school district's athletic programs in conflict resolution. Then I walked into my next decade at Caltech. The things I got to do there were incredible.

Was it a conscious decision to pivot back to science after about 10 years working in international health and social welfare?

It was preparation meeting opportunity. I was prepared for a lot of things. I was working with leaders in a lot of fields, and the incredible opportunity to be director of communications for the largest division of Caltech presented itself.

Tell me about your job at Caltech.

I did a lot of the standard work in internal and external communications. I was also the editor of *ENGenious*, a Caltech in-house publication. My team built faculty members' first websites. That led to many of the faculty understanding the value of communicating their work to a broader audience, which in turn opened the door to my coaching them. I helped them figure out how to connect to a broader audience and to explain why what they did mattered. Eventually, I started training teams, and I developed a curriculum to teach graduate courses on effective science and engineering communications. I was interacting with faculty, postdocs, and students.

What about the Moore Foundation was appealing enough to take you away from a job you loved?

A recruiter said, "The Moore Foun-

ation is looking for someone like you. What would it take to get you?" They helped Peter find a job, and the Moore Foundation was supportive of me guest lecturing and continuing my international work, serving as the communications consultant to an interdisciplinary research team studying the dawn of the universe. The team meets at the Niels Bohr Institute in Copenhagen about once a year, and I provide one-on-one coaching and teach effective communications.

The job itself opened a world to me that I didn't have at Caltech. The Moore Foundation had been a big funder of Caltech for many years. Even though I am not a grant maker, I got to sit on the other side of the table and see communications from a different perspective. I also got a broader portfolio. I am involved in communicating not only the foundation's physical science work but also that of the Andes-Amazon Initiative, which is trying to preserve the land, water, and way of life of the Amazon. I'm also working on a new green chemistry initiative.

How do you spend your time?

Physics is a central part of what I do now. I partner with our grant makers to provide communications counsel to them. I do external communications. I get to work with scientists and advise them, which is a really fun aspect of my job.

I think about how I can have the most impact as a human on this planet. My superpower is connecting with people and winning people over. Part of my job is to help other people discover their superpowers. My work at Moore and at Caltech is the same in some ways: I hold the hand of experts and walk with them until we discover the points of connection, the points that really matter to make the world a better place.

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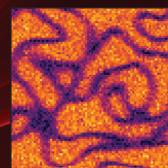


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