

EQUITY, DIVERSITY, AND INCLUSION: CONVERSATIONS AT TRIUMF

BY ANONYMOUS TRIUMF STAFF, EDITED BY CARLA RODRIGO

TRIUMF is an institution with over 50 years of history in accelerating discovery. While we have made great leaps in science; we are not immune to the systemic issues that disproportionately affect the lives of underrepresented groups in the scientific community. In recent years, we've worked to overcome the gaps in equity: we've established the Equity, Diversity, and Inclusion Committee, we've implemented unconscious bias training, and we've reached out to the broader community in hopes of inspiring a diverse generation of innovators. But there is always more work to be done, and there should always be more room at the table for those who have not been given a seat. The following collection of personal statements from members of the TRIUMF community, anonymized out of respect for privacy, aims to document the steps taken thus far, and the leaps that remain still ahead of us.

ACCOMMODATING FAMILIES

"I joined TRIUMF as a postdoc in 2015 and it hasn't been easy since the beginning, in terms of making jobs and kids compatible. Families with young kids are part of the invisible minorities at TRIUMF. When I moved here with my wife, who is also a PhD, the first frustration was the waiting lists for daycare. The waiting period can vary from 1-2 years, which is a huge problem. In addition, TRIUMF lost the priority that other UBC staff have in the UBC daycare services, and other Vancouver daycares are too expensive for postdoc salaries. Every two years, postdocs are new again, which means that problems can repeat every two or three years. Now, COVID has brought us many changes in family managing. Without schools running, and with a toddler still on the waiting list for a daycare spot, it is extremely difficult. But there have been improvements, and I think the Graduate Students and Postdocs Society (GAPS) at TRIUMF has helped to report and address important issues. It's a very good committee that should be supported — they help people avoid social isolation by interacting with the community.

SUMMARY

This collection of personal statements on EDI from the TRIUMF community serves to acknowledge and amplify the lived experiences of underrepresented groups at the lab.

In terms of diversity, as an international facility, sometimes people arrive at TRIUMF as non-native English speakers, myself included. Foreign language speakers are welcomed, but communication can be hard if the audience does not have enough empathy. The level of English fluency can vary due to different reasons, such as the public/private education differences in non-English speaking countries. My communication skills have improved a lot during these five years, but I remember how difficult it was to follow some meetings at the beginning, when slang was present in conversations. In addition, in terms of diversity — at TRIUMF, some places of origin are over-represented compared to other regions of the world. This is partially understandable because some countries have a longer tradition of nuclear research, however, I would expect to have more representation from the countries and cultures that make up the population of Vancouver. And I'm not talking only about senior scientists; looking at PhD students, I would expect that TRIUMF should be representative of the diverse community living in Vancouver.

Regarding gender, I think TRIUMF has been really good compared to others, and while I agree that we should have more women in physics, just having more women doesn't capture everything. We should also have a look at their backgrounds, both women and men. Some may come from a family with enough opportunities that university was no problem; other students may be coming from very low-income families. In that situation, are we really evaluating the same effort? Are we taking this class difference into account when discussing diversity?"

INVALUABLE MENTORSHIP

"There's something to be said about representation, right? I had a particular affinity for my grade 11 physics teacher — not only did she teach us physics, she taught us a general approach to solving problems in science. The main factor that enabled me to stick with this career path and succeed was the string of mentors I was lucky to find, starting with her. Every one of them left me convinced that they would back me on just about anything. They made it clear that they genuinely wanted me to succeed. I didn't have a close personal relationship with all my mentors, but if I needed anything and I could make a solid case for it, I would get their support to make it happen.

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There's a bit of an exhaustion factor when having these discussions about EDI issues over and over with a bunch of different people. Because we are all scientists, I keep a few scientific papers and studies handy to say, "well, actually..." but it depends on the person I'm interacting with. I usually spend more time trying to convince people who are closer to my peer group; it's more comfortable to do so. As I become more established in my career, I hope to turn around and find more time and energy to be active with community efforts, but I think we need to be respectful of people's time when it comes to these issues. It's good that people from underrepresented groups are given a voice, but they shouldn't feel pressured into it — they should feel like they are in a position where they can say no to things. It's important to have mentors who can tell them, "You don't have to say yes to everything."

There are so many awesome students running around TRIUMF, and I hope they feel the way I felt about my mentors when they receive support from me. When I see applications that don't look like the rest of the pile, I make a conscious effort to make sure I'm not dismissing them as a reflex. I always take a second look and ask, "is that actually disqualifying, or is it just different?". There's the oft-repeated trope that in a purely merit-based system the cream will rise to the top. First, that isn't entirely true, and in a perverse way it absolves people from working on their unconscious biases. The general requirements for people in hiring positions to do unconscious bias training is good, but I wish there was broader encouragement for everyone to do it, even those hiring summer students. It doesn't take long, and it can make someone's career when you give them that first job. I don't think we can rely on the generational shift that people sometimes think will be enough; these big, bulky systems are impossible to change from the inside without a conscious effort."

UNDERSTANDING DIFFERENCES

"When I first got to TRIUMF, the environment was very different — most of the guys in the machine shop were a lot older, and they had similar backgrounds. I'm of East Indian descent, and when I first arrived, I felt welcomed by some of the guys and not so much by others. There were racist comments which was nothing new to hear. Sometimes I even nodded my head in agreement as a survival mechanism. In our shop, there was another man of East Indian descent who was picked on regularly, and even though I was of the same race their comments weren't directed to me. They even tried to include me or get my approval of their racist comments. I think this was because I was quite young, impressionable, and looking to fit in. This man who was discriminated against stood up for himself, and I didn't. I grew up in a neighbourhood that was fairly racist, and even in school I would laugh with everyone so that I wouldn't be singled out. It was a matter of safety at the time, safety and belonging. Back then I didn't have the leadership qualities that I do now.

Personally, I made close relationships with the people I was working with, and the racist remarks just seemed to stop — if

there were comments made, it would be followed by "Oh, sorry, I was just joking". I think it was because I tried to fit in and see their point of view. By the time I left the shop, I had good friendships and we could transcend the race issues. Now, more than ever before, I'm sharing my culture with others. The more I looked to spirituality, the more I found certain practices from my culture that made sense and were backed by science. My parents practiced Hinduism in our home, so it must have had an influence. I have a passion to share the gifts of my culture because of those moments of discrimination.

Amongst our group here at TRIUMF, we openly talk about our differences and we can even joke about them. Recently, our group dynamic has changed after hiring some young women from different backgrounds. It's a more colourful, more vibrant environment as they share their culture with the rest of the group. This decision to hire them totally changed the energy of a group — it's like adding oil into a machine. Now, when facing others who can't see beyond race, I try to understand what's causing their fear. The baseline of any resistance and resentment is fear of the unknown. If I can understand that fear, I can help put them at ease. And if they want to, they can change; if not, that's their choice too. Don't be ashamed of who you are, because it's not you, it's them."

INSPIRING SUPERVISORS

"Like many other women, I ended up here totally by accident. When I was in high school, I didn't like physics or math at all; I thought I was really bad at it, which I think is another common experience among women. I don't remember having any math or science teachers that really inspired me, but it's also very dependent on how much exposure you've had to different ways of thinking about the subject. Math was very much: "learn this formula, plug in the numbers, memorize this". As soon as I got to university, it was a complete flip. You didn't need to memorize; you needed to understand how it worked. For me, that was super important. One of the things that we can do differently when talking to kids is showing them there are other ways to think about things. I used to do outreach, and when kids drew a scientist, they would all draw Albert Einstein. It was important to ask, "Why do you think all scientists are old, white men?" If that's stuck in your brain when you're six, that becomes a bias that's hard to overcome.

Amongst my peers, it was not uncommon for somebody to say, "Are you sure you didn't get this job because you're a woman?". The first time I heard it, it freaked me out and I thought, "Maybe this is true". I asked my boss if I was a just a diversity hire and he said no, of course not. A friend of mine was surprised to hear that every woman in physics I know has been told they were just a diversity hire; that's a very normal thing to have heard multiple times in your life. There are tons of similar things that people of colour in science have heard or experienced that I can't imagine. But it's good to hear about these things now and know that they exist — that's how you move forward.

After student life there were definitely moments when I was taken by surprise, but I feel like I've had a pretty good experience in the physics world. At TRIUMF I feel included all the time. The people in our group are so inclusive that I always really feel like a part of a tight-knit team. What's really important is knowing that your supervisor has your back. There were so many times when I could have dropped out of physics, but part of the reason I stayed was because I really respected my supervisors. Mentorship is key — we don't really spend a lot of time training people how to do that, and I think that's a big failing on our part. We should help physicists develop the skills to be a mentor for someone else."

MAINTAINING DIVERSITY

"I was more of an artistic person, not a science person, but because I belong to an Asian background, my mom believed that my profession should be in the sciences. Also, I always got high scores in science, and with the passage of time, I started liking it. For me it was like a magic wand in your hand for turning the impossible into the possible. I've always felt like I belong in STEM, but what discourages women is losing opportunities for promotions. I have all the skills and the experience, but I know that when an opportunity for promotion comes, my chances are lower. Some women spend years of their lives working in labs as technicians, postdocs, or even research scientists, but have not been able to reach the level of professor. It can be discouraging when you see a man who has the same skills and experience, but he is given more opportunities.

On the subject of EDI, we always say equity, diversity, and inclusion, but I think it should be first diversity, then equity, then inclusion. You must first have a diverse environment in your institution. In a diverse environment there will be more open minds and open hearts — and that's what you need in science and in international collaborations. We come from different backgrounds; you will have your own perspective and frame of mind, and I will have my own. When we communicate with each other, we can become more equal.

Equity comes next — for me this means balance, not only between different cultures and backgrounds, but also between different genders. Do people in the same position have the same salary level? Often men have better benefits, higher salaries and more chances of being promoted than women. At TRIUMF, we don't see many women in top management, but this is gradually changing for the better.

Last is inclusion. I think inclusion will come automatically when you create an environment with equality for all, where everyone's opinion is heard, and people offer their opinions in a respectful, ethical way. It's not about winning or losing, it's about a discussion. Many institutions have diversity, but the real task is to maintain it. It's important that we try to retain people who are enthusiastic and productive, ensuring they feel comfortable. Even if there is one such person in the institution, they will inspire others. Don't lose passionate people. Don't let them be silent. One candle can light a thousand."