ALBA NETWORK
Towards diversity and equity in brain sciences

The ALBA Diversity Podcast

Season 1- Episode 9

Dr Mehmet Kurt - Intersectionality and LGBT in STEM

Speaker Key:

SM Shruti Muralidhar (Podcast host)

MK Mehmet Kurt (Guest)

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SM Hello, and welcome to the ALBA Diversity Podcast, an ALBA Network undertaking to profile and highlight diverse and immigrant neuroscientists. The ALBA Network aims to promote equity and diversity in the brain sciences. We talk to neuroscientists across positions, career paths and backgrounds to better understand their personal journeys.

We showcase the grit and determination it takes to overcome hurdles as part of under-represented or minority groups. We talk about what keeps them going as individuals and as neuroscientists in today's world.

MK Thank you to Shruti for having me on your podcast. I'm Prof. Mehmet Kurt. I'm currently an assistant professor at Stevens Institute of Technology in Hoboken, New Jersey. I also have an adjunct position at the biomedical engineering and imaging institute at Icahn School of Medicine at Mount Sinai in Manhattan.

SM Wonderful. Thank you so much for being with us. And we can jump right into the questions. Mehmet, when was the first time you thought about brain and neurons?

MK That's a very interesting question, because the answer might actually surprise you.

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So, my bachelor's degree, I got it from Turkey, I'm originally from Turkey, was in mechanical engineering. And then I went on to do my PhD studies in the US, at the University of Illinois Urbana-Champaign. And, actually, my specialty was still mechanical engineering, specifically vibrations.

And I always had the urge and intention to do something medical-related with my research. So, after having completed my PhD, I was really looking around to see what the principles that I have used and developed during my PhD studies could be useful for towards applications in human health. And I had conversations with a professor from Stanford, Prof. David Camarillo was working on concussions and traumatic brain injury at that time.

And I thought that this was a perfect transition from vibrations to the brain. And that's when, that's in 2014, so about seven years ago. And that's when I got into it, to be honest.

I didn't particularly have a passion for the brain before that, or brain sciences. But as soon as I started studying the human brain I was completely hooked. And, actually, that from concussions, my research diverged into many different disciplines that I began to go into. But that's when I first got introduced to the topic of brain sciences.

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SM Well, that's wonderful. I mean as a recent entrant into the field, welcome. We always love having.

MK Thank you.

SM We love having people. I'm sure everybody agrees with me. But I personally love having so many different experts come into neuroscience and try to understand the brain and the pathologies and the problems. Because it gives such a beautiful perspective. I mean I think you are the first mechanical engineer I have met who thinks about concussion and vibration in a very mechanistic way. And I'm really glad you're here and I'm really glad you're in neuroscience.

You wanted to understand concussion better. You wanted to understand the brain and concussion better. How did that grow into, oh, this is what I want to study for my foreseeable career?

MK So, when I first started working on concussions, and basically the response of your brain when you receive an impact, a head blow, what I realised was that the problem actually was way more complicated than just the mechanical response involved. Obviously, I think that was an important question that needed to be asked. And that especially from a vibrations point of view, when I entered into that field, that was quite understudied.

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Once I started really studying the mechanics of the brains, which in the case of the concussion, it is really a mysterious thing. Because, obviously, our brains are encased inside our skulls. So, we don't really know what happens at the instant of the impact to the brain from a mechanical perspective. So, a lot of the researchers, including our research group, use computation models to try to understand that by combining, obviously, imaging datasets and sensory information from athletes and whatnot.

But what made me really interested in this field further was how complex the actual questions were. And how unexplored the relations, the importance of mechanics in brain sciences was. I think that was kind of what made me realise, hey, I actually want to build my career on that, because there are so many unanswered questions in this field.

SM The allure and the attraction of not having answers is huge, right? I think it drives a lot of people in the brain sciences. Through the time that you've been in neuroscience, not even in science but generally in your life, have you had mentors and people who you look up to? And can you tell us a little bit more about who they are and how they've helped you through the way?

MK Absolutely. So, I was doing my postdoctoral studies at Stanford. And a lot of

people helped me there. Because in our fields it is really crucial to be able to communicate with clinicians. And also imaging scientists. So, for example, I had no medical engineering background when I first started my postdoctoral career.

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But now I'm building a career on medical imaging to study the mechanics of the brain, thanks to many amazing mentors at Stanford, for instance, who believed in what I was bringing to the table. And I think that because it is usually hard to find a common language between scientists who are from different disciplines. And that might come across almost off-putting at times.

But I didn't experience that and I think that was an important factor that I persisted in pursuing this line of research, in my opinion. And yes, I have many people to thank for. I don't know even. I probably wouldn't want to list them, because I fear that I will leave certain people. But, again, a lot of help, maybe include anywhere from my PhD advisor to the people that I worked with at Stanford.

And, actually, I mean it's not really the typical definition of a mentor, but I actually think one of the most important groups of people of had a huge impact on me and my research were my lab mates.

We had such an amazing friendship environment. In fact, we still… I will chat daily with some of them. And we have Zoom calls and we still connect with each other. Some of them are still in academia. So, they had a huge effect on me, because I have a very collaborative nature and it is partially I think thanks to them. Because how it was very organic and friendly and collegial, and it fostered many great ideas that we worked on and we have been working on. And I think those would be, actually, the people that I would thank the most in a way.

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Because the experience of a lab environment could be different for other people. I was super lucky to have amazing people that I worked with.

SM For sure. No, I hear where you're coming from, 100%. Because, personally, I'm one of those people who have also benefited from something like this. I mean in my current lab and in my previous PhD lab. I didn't have a word for it back then. It's funny, but now I have a word for it. And I heard from a lot of people. And it sounds wonderful to me. Horizontal mentoring.

MK I love that.

SM Right. It's not vertical. Like you're not really looking up to somebody to ask for their experience or their wisdom. But sometimes just having somebody right next to you, egging you on and saying, hey, you know what? You should be doing. Or bringing your name up in conversation, going, I know. I know somebody who's a mechanical engineer who can actually answer that question really well.

But I'm also glad you brought up the fact that having a good environment is so important. You could be in a great lab. You could be in a lab with a wonderful PI. But not having supportive lab mates or not having supportive people around you is a hard thing to get over.

MK Absolutely. Especially academia can be very stressful. Sometimes it is induced by the environment itself. Sometimes it's self-induced. And it can be very stressful, right?

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So, to have an environment that is supporting and collegial can make the whole difference for us. And I think in my case it did.

SM A little bit of a gear shift. Do you consider yourself to be part of an immigrant or a minority group? And have there been times if or when you faced covert or overt discrimination because of this? Because of being part of a group that's not a majority group.

MK Yes. So, I'm definitely an immigrant in this country. So, as I said, I'm originally from Turkey. And I migrated to the US for my PhD in 2010 and have been living here ever since. I also identify as a gay man. And that is definitely something that… I mean it's a group that, being an LGBTQ+ individual kind of brings different experiences than other individuals.

I was lucky enough not to have any particular challenges or really overt discrimination. However, one of the issues with being an LGBTQ+ individual in STEM and in academia is the invisibility. You're pretty much invisible if you choose not to… Most of the people that I meet and interact with in a professional setting would assume that I'm a straight man. And that's the assumption. And that, I mean I have my own struggles. To be honest, I wasn't out at work for the longest time.

And I have conversations with colleagues about this, because there's almost this sentiment. They're used to be at least, and I'm glad to see that it's changing. There used to be this sentiment that, hey, that's just your personal business. Why would you even want to share that in a professional environment?

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However, we don't realise how heteronormative the working environment is. And, actually, everybody who works in a STEM environment project heteronormative… I mean not everybody in the sense that I'm not talking about every individual.

SM Most people.

MK Exactly. The majority, right? Projects the heteronormative culture that we accept as LGBTQ+ individuals. And I think the struggle is worse not for a gay man like me but for someone who is gender nonconforming, who is trans. The struggle is definitely worse. And maybe I haven't experienced this on a personal level.

But in my current institution and other institutions that I've worked with I had students coming to talk to me and asking whether it is okay for them to ask people to use their preferred pronouns. Or is it okay for them to basically express their gender identity or lack thereof. I mean I don't know. That's a very pessimistic scenario. That we have to think about that even. We have to think about whether that's going to affect our professional trajectory.

SM Yes. It's true that a lot of people tried not to… Okay, so let me rephrase this. It comes down to the one thing that's a bug bear for me. Is that people think that if

you're a scientist, your science should not be affected by who you are. And what you do is entirely different from who you are. You're absolutely right in the sense that that's not true at all.

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There are groups being disadvantaged because of this outlook. And just because there are people in the majority who think gender is not important and they're the ones who set the rules and they're the ones who sit on top. And it just so happens that they make it difficult for other people to be themselves. I guess we're human beings first, right? Rather than being scientists first. And we should be able to bring our full selves into what we do.

MK Absolutely. And especially we have to consider the intersectionality of identity. Everybody is coming from… Obviously, LGBTQ+ is one set of identity, but there are other identities that will factor in and the intersections of those identities will lead you towards a different experience. So, in my case, for instance, I'm trying to project what I went through and try to understand what others in our community would go through.

And what can I say is that I wasn't out for the longest time because everybody, again, has a different cultural background and has a different journey. But I'm thinking if I had worked in a STEM environment that was inclusive in a loud way, in a loud manner, perhaps it could have helped me with my own personal journey as well.

So, as I said, I wasn't out for the longest time. And I'm not saying that's the primary reason, but that is part of the reason. Again, we have to consider intersectionality here. But now, I already went through this journey. Now, my purpose is for students who are 18 years old, 19 years old, struggling with these thoughts. I mean how hard it must be. Especially if you're in a campus environment.

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Everybody tends to think that they are in these… Even if you're in a big city, you're in this campus environment that is uber liberal and whatnot. That's not always the case. Different campuses have different cultures and environments where it might be super hard, especially in STEM fields, where there's already a gender imbalance. Where there are studies that already show that the perception is heteronormative. The standard perception of the professionalism in STEM is heteronormative. Can you imagine how hard it must be for a student to be out?

I'm not even, again, factoring in all the other personal struggles that they might have based on other identities. So, yes, I mean this is kind of like how I see the situation.

SM I think it's also very generous of you to pay it forward. Even though you did have some issues and it took you a while to come out and say, okay, this is who I am and this what I'm bringing to the table. Not everybody will have the time or the courage to stay and to help the next generation of scientists and researchers. So, for that, thank you very much. I think it's a very noble thought and not a lot of people will do. So, I'm glad you're doing it.

But just in terms of intersectionality, is something that I'm also trying to understand

fully as somebody who is in science, who is from a gender that is under-represented and the whole package. Sometimes it's difficult for me to understand how to help other people, especially with intersectionality.

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First of all, I struggle sometimes to define it. When I'm trying to define it to other people it gets difficult. I try to usually explain it to them as having different facets to your personality and all of them are contributing to who you are and what you think and your opinions and things.

But for somebody, say, who's as young as 18, 19, still trying to discover parts of themselves, how would you explain intersectionality to, say, a young student who is just trying to figure out who they are?

MK In my opinion, the way I look at intersectionality is that this… Sometimes, all of us tend to think about things in discreet categorisation. And I think thus when I think about intersectionality, I really mean N dimensions to your identity. It really is that. And, for example, if I'm interested, if I'm a researcher with, say, interest in amplifying marginalised voices, I cannot look at things from a discreet analysis point of view. Because that's not going to amplify everyone equally.

So, you're right. I mean it's a continuous spectrum of identities. And I really think this is a topic of science. This should be explored in a way where how we should approach different cases of intersectionality. But yes, in lay terms, that's how I would explain to a young person that you really shouldn't put things in discreet bins, because all of us have many dimensions to ourselves. Both in terms of where we are from, what we like, where we grew up, who our families were. I mean, really.

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But I'm encouraged to especially the diversity efforts that are led by amazing people are now really considering intersectionality to be an important cornerstone of what they're doing. And I think that should be the direction of how we analyse marginalised identities.

SM That's perfect. Because my next point was going to be about diversity and you provided me the perfect segue into it. Intersectionality leading to diversity, but also diversity of thought and diversity of who we are and what we bring to the table. Is there any example where you've seen putting diversity in the front?

A lot of people will just use it as, oh, I'm just going to tick this box of diversity when I'm doing other things. Especially in STEM fields, like you mentioned. A lot of people will try to make meetings or boards or groups or action groups. And then they'll have a couple of people and be like, oh, we need to have one woman, one black person, one person of colour.

MK Exactly.

SM One person who is of another gender orientation. It becomes sort of like.

MK Tokenising.

SM Exactly. It becomes like a box ticking, tokenising exercise.

MK Absolutely.

SM But for me, and I'm sure for the audience to, I think it would be great to hear… I would love to hear if you have any examples where having this diversity actually resulted in a better outcome.

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MK Yes. First, I will make a comment about what you said, because you made a great point. So, I hope I will be able to describe this. So, I think there is a difference between representation, actual representation. And I'll tell you what I mean by that. I think placing marginalised identities, minorities, under-represented people in committees. That's good branding for an institution. But I don't think that helps the bigger purpose necessarily.

I mean it probably marginally helps in the sense that… I'm definitely not saying that those should be avoided. But it also has drawbacks. Now, certain under-represented people might now have a lot of community responsibilities in academia, for instance. They're getting invited to all these panels, and that might take its toll on them. So, is the solution to invite just a limited number of under-represented people to all of these committees? Or should we actually solve this problem at its root?

Again, representation is important. So, I'm not saying that… Obviously, there's a benefit of including, having diverse committees. And I think that's great. But that's not the actual action steps that we need to take. I completely agree with your point on that. I hope I was able to.

SM What you said, for me it meant between token representation and meaningful representation.

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MK Exactly.

SM That representation that reflects the population diversity. I guess that's what I'm trying to.

MK Exactly, that's what I mean. So, I think there is a difference between that. And I can say. I mean I'm going to give one example that I was part of and I thought that it was a great and I'll tell you why. I worked with this organisation called the STEM Village. It's a UK-based organisation which aims to increase the visibility of LGBTQ+ individuals in STEM all over the globe.

Last summer, we had a virtual seminar series, a conference, a virtual conference across the globe where we invited talks and [unclear] in all fields of STEM from LGBTQ+ individuals. And we had a series of talks. Invited talks. Keynote lectures. Seminars. I mean the conference in itself was great. But what made me super happy was, so we had about 500 participants. And we had participants because we gave the participants the option to be anonymous if they wanted to choose to be. And we had participants from countries where it was illegal to be LGBTQ+.

And we actually received even emails from people who asked for more guidance about the future of their professional trajectory and whatnot. And I felt that was at

least, it was obviously what we did was quite small. Maybe it touched 500 people. But I thought that was at least, that networking and bringing the communities together. And also showing that you can be LGBTQ+ and a scientist. I think it empowered at least some people who participated.

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And it made me super happy. And I thought was a genuine effort. And I'm not saying that that organisation is the only organisation that does these types of activities. But that was what I directly personally experienced. And all the wonderful people who work at STEM Village, like Matthew, Katie and Curie. I mean we all I think did a good job in that. And I think it was very successful.

And now, actually, all that experience of seeing these people in really tough situations due to their identity. Now we're working with, again, the STEM Village and I'm leading an effort to create a mentorship platform for LGBTQ+ people in STEM.

The idea is basically we're going to sign up mentors and mentees. And it's going to be an eight-week program where… It's in the developmental stages right, so I'm not sure about the details. But it's going to be a program where mentors and mentees will meet weekly and work on a research topic or the mentee's choice.

And then after several weeks there's going to be a gathering where all the mentees are going to present their projects. And these will include high school students if they choose to be and undergraduate students. And I think those are the type of ways that, obviously, they're smaller scale because it's done by academics like us. We're doing it on a smaller scale.

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But I think those are the type of efforts. Because if you keep in mind that the purpose is to increase the visibility and representation of an identity, I think those are the types of actually meaningful efforts that need to be done, in my opinion.

SM Absolutely. I hear you on that. And I feel like meaningful change, like you defined it so well, happens in smaller steps and happens in smaller groups. And I feel like maybe we're sort of… You know those beginning ripples. In the beginning, the ripples are very small. But as they spread outward, I can see your efforts, for example, definitely being very far-reaching.

Because, like you said, all it takes is somebody to come forward and say it's okay to be who you are in the field that you want to be.

MK Exactly.

SM And sometimes you just need to listen to it. You just need somebody to tell you that sentence and you need to listen to it. Believe in it, actually.

MK Absolutely. To follow up on your question about diversity, obviously, as I said, we are just one part of the marginalised identities. Obviously, all of the platforms that we create as part of diversity, equity and inclusion should be anti-racist, anti-oppression, pro-justice and equity. This has to be the case.

I love… I want to quote Audre Lorde, who is an amazing poet and author. And she

has a great quote that I love. There's no such thing as a single-issue struggle because we do not have single-issue lives.

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She identified also as an African-American lesbian poet. And I think she put it better than anybody else can. And I really think this is the principal that we should hold in any outreach efforts going forward.

SM Yes. And what you said perfectly defines intersectionality, also. We are not single-issue people. We have so many issues we carry and we care about.

Thank you for listening to this episode of the ALBA Diversity Podcast. To know more about the ALBA Network and its activities to promote equity and diversity in the brain sciences, please visit ALBA dot network. You can also register as a member for free and take full advantage of the network's resources. For more details, follow the Twitter handle at network underscore ALBA or ALBA net brain on Facebook.

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