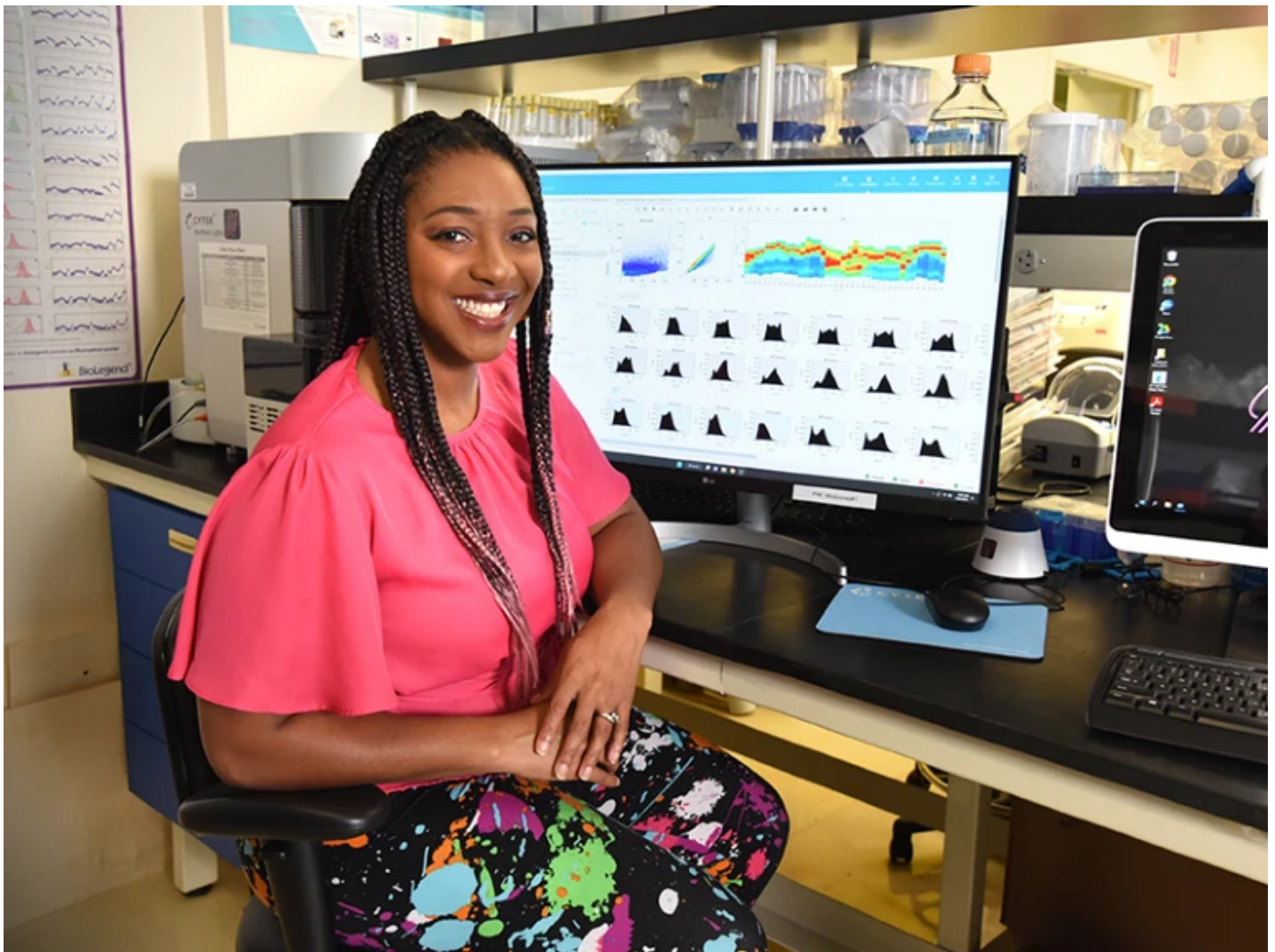


CAREER Q&A | 11 October 2023

Facing racism in science, 'I decided to prove them wrong'

Immunologist Dequina Nicholas shares why mentorship is crucial for first-generation scientists.

[Lesley Evans Ogden](#)



Dequina Nicholas is a molecular biologist at the University of California, Irvine. Credit: UCI School of Biological Sciences

Immunologist Dequina Nicholas was among 575 early-career scientists networking with 40 Nobel laureates at the 72nd Lindau Nobel Laureate Meeting in Germany in June. The Lindau meeting is a once-in-a-lifetime opportunity for early-career researchers.

Nicholas pursued graduate research in immunology, inspired in part by her mother's struggle with type 2 diabetes. After earning a PhD from Loma Linda University in California, she did a postdoctoral research at the University of California, San Diego (UCSD), researching the effect of inflammation and metabolism on reproduction.

She credits her postdoctoral research programme, the US National Institutes of Health's [institutional research and academic career development award](#) (IRACDA), with teaching

her about great mentorship.

Nicholas, now at the University of California, Irvine, studies how lipid immunology contributes to type 2 diabetes and polycystic ovarian syndrome, with the goal of developing immunotherapies. Nicholas sat down with *Nature* at the Lindau conference to discuss tackling racism in science head on and how, sometimes, burning a bridge can be an act of self-preservation.

What motivated you to become a scientist?

My parents are immigrants. My mum's from Jamaica, my dad's from Dominica. Their goal for me was to follow the American dream and become a doctor or lawyer. But I was always in love with science – science fairs, the scientific process and asking and answering questions.

During my chemistry honours project at Southern Adventist University in Collegedale, Tennessee, I was dehydrating alcohols with acids. I thought it was the most boring thing ever, but I enjoyed the autonomy of independent lab work. Back then, I had no idea what I would do with my degree afterwards.

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But my mum's friend's brother was a professor at Loma Linda University. While talking to him, I learnt that research could be a job. Before that, I had never come across a Black professor.

What challenges did you face during your graduate studies?

There is a lot of intersectionality for me. I'm first generation. I'm Black. I'm a woman. People often underestimated how much I could do.

One crucial thing: I never knew how to transition to the next step in my career. But I've been very blessed. People saw me struggling and went out of their way to help me. The first person to do so was microbiologist Hansel Fletcher, at Loma Linda University, who recommended that I apply for graduate-programme funding. I thought that was so cool – getting paid to study.

When I finally joined a laboratory, there was this rumour going around campus that Black women weren't good scientists. Some grad students said that to my face. That was super hurtful.

There are many ways you can take messages such as that. It can demoralize or crush you. I decided to prove them wrong. I worked extremely hard. My goal has always been to change attitudes, change perspectives. Being angry doesn't take you anywhere.

Did it get easier as a postdoc?

Not at first. After my PhD, I tried to get a postdoc position. I bombed several interviews. I was rejected twice for the IRACDA fellowship. I wasn't a bad scientist. I just didn't know how to network or leverage social capital. I eventually landed a position at Boston University, Massachusetts, through a mentor.

My first year in Boston was tough – it felt like a very toxic environment to me. In my opinion, women in the lab were treated very differently from men. I was not happy. I was depressed and far away from my family in Florida. After a lot of soul searching, I quit.



Protecting myself by burning that bridge was one of the best decisions that I've ever made. The next year, I was more productive than ever. I had gained confidence and learnt to value myself and my expertise. It felt good to know my worth.

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affirmative action**

I eventually earned the IRACDA fellowship at UCSD.

Interacting with the other postdocs there – a diverse group with wonderful mentorship training opportunities and healthy lab environments – was magical.

That programme gave us tools, a community and a network. After that, I knew better how to write job applications, interview, create my CV, network, self-promote, mentor and teach. When I set up my lab in 2021, I hit the ground running.

What barriers do you see in science academia for first-generation students?

There's this whole secret game behind the curtains. I want everyone to know how the system works so that everyone has fair opportunity.

My big dream is to form a non-profit that brings to light all the little hidden things in academic programmes. For instance, that undergraduates can apply for university credit or be paid to get research-assistant experience, or that, in graduate-school applications, personal and research statements are more important than grades and opportunities.

I want every first-year university student, no matter what their background, to have the tools to figure out what questions to ask, because they don't know what they don't know.

You have been vocal on X (previously Twitter) about the trials of motherhood in academia.

Yes. I was pregnant while interviewing for faculty jobs, and it recoloured everything. The University of California, Irvine, made it very clear that it supported women and families – I had childcare organized for me before I accepted the job offer.

During the COVID-19 pandemic, when childcare centres were closed, I brought my baby to work. A colleague said, “We love that your baby’s here. Why are all the other principal investigators not bringing their kids to work?” I laughed and said, “They have wives.” It looked like a light bulb had switched on for him.

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Juggling work with family life is hard. I try to purposefully put my child first – to remember that she'll only be small for a short time, to enjoy my cuddles and hugs. Some days I pick her up from childcare early and bring her to work. She has a blast.

What steps along your career path might serve as lessons for others?

I wrote my first grant proposal in grad school. My mentors said, “Oh, you don’t need to write the grant application; we have money for you.” I replied, “I’m not writing a grant for the money – it’s good for my career.”

I paid for many conferences out of my own pocket – which grad students should never have to do. I was so broke. But it was worth it, because the meetings helped me to learn and grow. They were where I learnt to pitch my ideas and stomach the criticism that I got from other conference attendees.

What do you think about the fact that a Black woman has never won a Nobel prize in science?

I don’t think we should have a negative perspective because of where things have been in history. We should have a perspective on where we are going moving forwards.

It’s one of my wild dreams to return to Lindau as a laureate. It’s something I can aspire to: science at top, top levels. As we start getting more women and minority laureates –

more than half of all the women laureates for all Nobel categories have won since 2000

– we will realize, “Yeah, I can do this.”

doi: <https://doi.org/10.1038/d41586-023-03205-0>

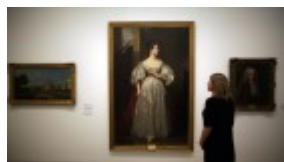
This interview has been edited for length and clarity.

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