

Q&A

Gregory Quirk

Gregory Quirk has worked in New York, Honduras, and Puerto Rico with a decades-long commitment to mentorship and the global promotion of neuroscience. In an interview with *Neuron*, he talks about his upcoming move to the University of the Philippines and how virtual meetings are making us rethink collaborations and interactions with members of the community.

Biography

Gregory J. Quirk, Ph.D. is a Professor of Psychiatry and Anatomy & Neurobiology at the University of Puerto Rico School of Medicine. His research focuses on how the brain inhibits learned fear associations through extinction and avoidance in rodent models. A former Fulbright Fellow at the National University of Honduras, he has spent the past 24 years in Puerto Rico promoting the development of neuroscience research and mentoring there. His doctoral thesis focused on hippocampal place cells (with Robert Muller at SUNY-Downstate), and his post-doctoral work was on the amygdala and conditioned fear (with Joseph LeDoux at NYU). In addition to training many undergraduate and graduate students in PR, Quirk has worked on multiple diversity issues and the promotion of neuroscience throughout Latin America via committee work in IBRO and SFN. He is a MERIT Awardee from NIH and recently received the Dolores Shockley Minority Mentoring Award from the American College of Neuropsychopharmacology (ACNP). He is in the process of moving from Puerto Rico to the University of the Philippines in Manila to promote neuroscience and initiate animal models of addiction in that country.

Have you had to or considered redefining your research program as a consequence of the pandemic?

At the start of the pandemic, I was in the process of moving from the University of Puerto Rico (UPR) to the University of the Philippines (UP) in Manila. I have spent 24 years in PR to stimulate neuroscience research and training. Having completed that project, I approached the UP about joining the faculty there and doing a similar project in Manila. UPR recruited my former graduate stu-



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dent, Christian Bravo-Rivera, to take over the lab, students, staff, and my NIH grant. In fact, Dr. Bravo-Rivera started this week as an Assistant Professor at UPR with his own R00 grant. I assisted my colleagues in Manila to obtain a 3-year grant from the Philippine government to study adolescent inhalant addiction. As with all the countries in Southeast Asia, the Philippines borders are currently closed to foreigners due to the pandemic, causing me to postpone my move for 12 months. But I have been able to start some journal clubs and training via Zoom in Manila, and I hope to be able to move there in the winter.

What in your mind has been the main lesson from the recent challenges related to the pandemic?

There are more ways to do research collaboration, mentoring, and networking

than previously thought. Scientific practice is more about idea sharing across diverse platforms.

What is your view on the role of neuroscience in broader society?

To help people understand themselves, their potential for change, and their potential for achieving their goals.

This year's challenges may have caused you to rethink some aspects inherent to academic life. Are there any changes your lab has had to adopt that you'd like to maintain going forward?

Some changes include giving research seminars via Zoom, attending meetings via Zoom, and having guests "Zoom in" for lab meetings.

In your view, what are the most pressing questions in neuroscience?

Social neuroscience: how do we perceive and respond to social cues? The importance of this has been highlighted during the pandemic by the deleterious effects of social isolation.

How can science and scientists better engage with the public and policymakers?

With the advent of Zoom, there is the opportunity for public access to lab meetings and trainee presentations. Imagine lab meetings having two Zoom spots reserved for community members or journalists who are interested in the lab's particular research question. They can see first-hand how the science is done, and how human the endeavor is, and they can also contribute questions and ideas to the discussion. It might resemble the "embedding" of journalists in active war zones...

What is the future of scientific conferences? Are virtual meetings here to stay?

Yes. Idea-sharing is idea-sharing, whether physical or virtual. The concept that we must be physically present in order to exchange ideas is now shown to be arcane. In fact, more sharing is now occurring because people are attending meetings *that they would not be able to attend physically* (whether due to family obligations, long travel time, prohibitive costs, etc.). Virtual meetings don't have the intensity of face-to-face contact, but this can be better simulated with virtual reality in the future.

What incentives or measures of productivity would best serve scientists moving forward?

Publishing and grant funding are still effective measures of productivity. However, I would add a training/mentoring component that emphasizes cross-lab collaboration and diversity. Through the use of Zoom, it would be possible to have your grad student or postdoc (from a diverse background?) attend some lab meetings from the lab of a colleague (from a diverse background?) and learn about their style and focus. That would enhance their mentoring skills and could lead to collaborations. The record of such "trainee collaborations" could be assessed for promotion. This sort of thing is happening informally between trainees at conferences, so this would help formalize it for the mentors.

How can we build equity for scientists from underrepresented populations? In your view, what specific policies or steps should be implemented? Or what has been done in this regard at your institution?

I think more needs to be done regarding hiring junior faculty from diverse backgrounds. Instead of "good intentions" on the part of search committees, there should be more formal directives imposed by chairs and deans. The faculty of each

department or institute needs to resemble the current US population. Why wait another 20 years, if this is possible in approximately 5 years?

What advice do you find yourself giving to your students and postdocs? Has that advice changed over the last year?

I am finding that my undergrad and grad students are having no trouble obtaining positions in competitive graduate training programs and postdocs. They are all Latinx, so one factor may be the interest in diversity on the part of programs in the US. As they embark on their interviews (both Zoom and in person), my advice is always, "Just be yourself and be honest and straightforward. Don't try to get them to like you—that will happen (or not) on its own. Just relax and have an interesting conversation about science." This advice has not changed since the pandemic.

Do you have a role model in science? If so, who and why?

Interesting question. Actually, I don't have a single role model, because I don't know of anyone who has taken this rather unusual career path. However, senior neuroscientists were models for me in various aspects: (1) Bruce McEwen (deceased) was a superb example of scientific collaboration combined with concern for social causes and addressing inequities in science. (2) My postdoc mentor Joseph LeDoux taught me much about scientific communication and having a diverse mix of ideas and personalities in the lab. He also taught me about having a well-balanced life that involves both science and music. Joe has a rock group (The Amygdaloids) and I have returned to weekly violin lessons and giving Zoom recitals from home.

Has there been a particular moment in your life or a social phenomenon arising from the past year that you have found memorable, amusing, or inspirational?

Because it is located in a major medical center in San Juan, my lab was

eligible to receive vaccinations relatively early on in the pandemic (February 2021). However, I was amazed to learn that some health professionals were rejecting the vaccine. But what was more unsettling was when my lab supervisor informed me that two members of our staff did not wish to put their names on the list to receive the vaccine (Pfizer). In fact, one of them recently lost a family member from COVID, but the individual was still unsure about the risk of taking the vaccine. So, in a meeting with each, I acknowledged that this was their decision to make, but pointed out that the risk of injury from contracting COVID was much higher than the risk of taking the vaccine. In a way, they really owed this to their spouses and families and their association with the medical school gave them an important advantage. Fortunately, both reevaluated and decided to put their names on the list. In a crisis, leadership is even more crucially important.

What have you had to do to support trainees with family obligations?

More flexible scheduling of employees.

How do you manage work-life balance yourself? And has that changed in 2020–2021?

Yes, my work-life balance has now changed: more life, less work. What I recognized as optimal before COVID heavily tilted toward work, especially with travel, talk prep, hosting visitors, advisory committees, attending talks, and others. During COVID, I have found the time to increase exercise, meditation, reading, and playing my violin. None of this would have happened without the pandemic.

How do you find inspiration generally?

I currently get inspiration from daily meditation practice and a weekly Buddhism book club.

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