

Brain Medicine

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INNOVATORS & IDEAS: RESEARCH LEADER

Michele T. Pato: Nature and nurture are essential to living the fullest and most enjoyable life; it is never just about our genes but what you do with them and what you bring to the table

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Michele T. Pato, MD, is Professor of Psychiatry and Inaugural Director of the Rutgers Center for Psychiatric Health and Genomics. Dr. Pato's research has been focused on increasing the representation of minority populations in large-scale genomic studies and through that process further contributing to the elucidation of the genomics of common and complex psychiatric disorders, such as schizophrenia and bipolar disorders. Underrepresented minority groups, particularly those in US-based communities of Latino and African descent, have traditionally not been sufficiently included in genomic studies. Yet, these populations have the most significant disparities in health care and outcomes; they also have the potential to substantially broaden our knowledge of human genetics. Dr. Pato has a lifelong history of exposing and mentoring trainees towards pathways in research. She is the author of *NERVE: A Physician Turned Patient and Her Courageous Recovery from Traumatic Brain Injury*, published by Springer in 2023. We are delighted to present to our audience insights into Dr. Pato's life and professional journey.

Part 1: Michele Pato – Life and Career

Could you give us a glimpse into your personal history, emphasizing the pivotal moments that first kindled your passion for science?

A child's first words are often "Mommy" and "Daddy." I hope my parents were not too disappointed, but my first word was probably "WHY?" From my earliest years, I can remember being curious and constantly asking why. It was easier for my Dad, the engineer, than my Mom, the artist, to explain this, but they both did it in their own way. I won my first science fair in second grade, where I built an electromagnet. A boy in my grade had built one too, but my explanation of how it worked won me first place! It was hard being a girl and wanting to be a scientist. When I graduated from public high school in 1974, I was one of only two girls over a 10-year period to graduate first in the class. College at Brown University was all about math and science until I discovered how little we knew about how the brain worked. My major and honors thesis was in cognitive psychology. How did we think? How did we learn? So, it only seemed natural to go to medical school and become a psychiatrist. This allowed me to study the brain, which I have been doing throughout my entire professional life.

We would like to know more about your career trajectory leading up to your most relevant leadership role. What defining moments channeled you toward that leadership responsibility?

What has always compelled me forward is teaching others. Be they patients, colleagues, or myself, I always want more answers, and I always want to help others understand. The best way to get a patient to comply with treatment is to have them, at some level, understand *WHY* you are suggesting the treatment. As my career moved forward, I was drawn to what was poorly understood. Two areas caught my interest and compelled



Figure 1. Michele Pato, MD, Rutgers University, USA.

my research. Why did patients with obsessive-compulsive disorder (OCD), despite their insight into the irrational nature of this obsession, continue to do their compulsions to relieve their anxiety? Moreover, what was the role of genetics in serious mental illnesses? I doubted that genetics would explain everything, but clearly, many of these disorders are familial.

Please share with us what initially piqued your interest in your favorite research or professional focus area.

Too many things come to mind, but watching the lunar module land and humans walk on the moon is definitely one of them. My Dad worked for Grumman aircraft at the time and helped design the air conditioning and heating of the Lunar module.

What impact do you hope to achieve in your field by focusing on specific research topics?

To help people feel better and reduce their suffering.

Please tell us more about your current scholarly focal points within your chosen field of science.

Nature and nurture are both important to living the fullest, most enjoyable life. It is never just about our genes but what you do with them and what you bring to the table. As I analyze our data, write papers, and work on presentations, I always ask if it makes sense, if I have the correct hypothesis, and if there is a better way to explain it.



What habits and values did you develop during your academic studies or subsequent postdoctoral experiences that you uphold within your research environment?

In many settings I felt encouraged to pose a question if something was not clear to me. I ensure that those working with me feel that it is fine to admit if they are not following along and to seek a clearer explanation.

At Genomic Press, we prioritize fostering research endeavors based solely on their inherent merit, uninfluenced by geography or the researchers' personal or demographic traits. Are there particular cultural facets within the scientific community that warrant transformative scrutiny, or is there a cause within science that deeply stirs your passions?

Supporting the careers of women in science. Women are great scientists. And even unique because they bring a different perspective to answering questions.

What do you most enjoy in your capacity as an academic or research leader?

Encouraging every physician to be a scientist. Never simply do something because that is the way it has always been done. Never be afraid to ask questions, especially when something does not go the way you expect: sometimes the unexpected teaches you the most!

Outside professional confines, how do you prefer to allocate your leisure moments, or conversely, in what manner would you envision spending these moments given a choice?

I love to cook. I so enjoy sharing my creativity in this way with others. I am basically a very social person and love spending time with friends and family in the kitchen. Food is a great vehicle for communication.

Part 2: Michele Pato – Selected questions from the Proust Questionnaire¹

What is your idea of perfect happiness?

Sharing thoughts and time with friends who let you be yourself and value your thoughts.

What is your greatest fear?

Not employing the skills I have been given to do the most good.

Which living person do you most admire?

This is a hard one for me to answer. People, of all backgrounds, have influenced me in so many different spheres of my life, and it is hard to pick just one. Overall, I have always admired the positive contributions.

What is your greatest extravagance?

A restaurant grade kitchen and all the pieces that go with it.

What are you most proud of?

Inspiring others to do research in medicine and to help others.

¹In the late nineteenth century various questionnaires were a popular diversion designed to discover new things about old friends. What is now known as the 35-question Proust Questionnaire became famous after Marcel Proust's answers to these questions were found and published posthumously. Proust answered the questions twice, at ages 14 and 20. Multiple other historical and contemporary figures have answered the Proust Questionnaire, such as Oscar Wilde, Karl Marx, Arthur Conan Doyle, Stéphane Mallarmé, Paul Cézanne, Martin Boucher, Hugh Jackman, David Bowie, and Zendaya. The Proust Questionnaire is often used to interview celebrities: the idea is that by answering these questions an individual will reveal his or her true nature. We have condensed the Proust Questionnaire by reducing the number of questions and slightly rewording some. These curated questions provide insights into the individual's inner world, ranging from notions of happiness and fear to aspirations and inspirations.

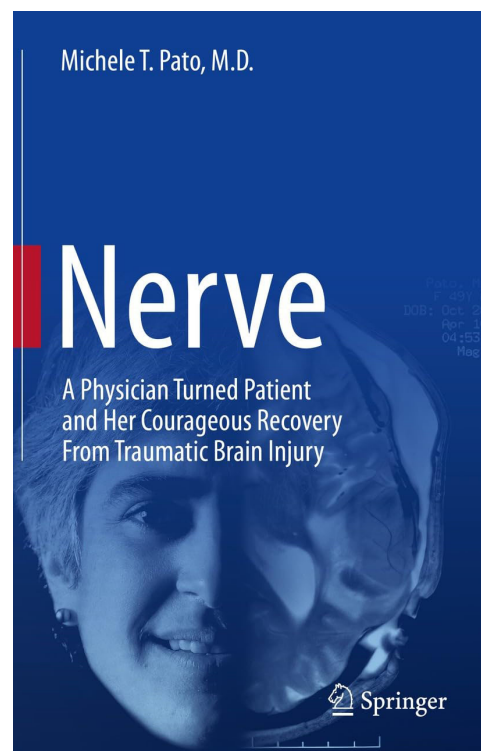


Figure 2. Michele Pato's book *NERVE*, on recovery from traumatic brain injury.

What is your greatest regret?

I never focus on what I have accomplished but constantly think about what still needs to be done. It is essential to take the time to celebrate your successes.

What is the quality you most admire in people?

Forgiveness. Being able to see beyond another's weaknesses or meanness and instead see their strengths and kindness.

What do you consider the most overrated virtue?

IQ without sensitivity.

What is your favorite activity (physical or intellectual)?

Cooking and baking.

Where would you most like to live?

With my husband and near my family and friends. Home is wherever they are with me.

What is your most treasured possession?

My "brain/mind." I am a Traumatic Brain Injury survivor. Eighteen years ago, I was hit by a car, and my head was wedged in a wrought iron fence. Half my skull was removed for a month and put on ice so my brain could expand without being crushed. No one knew how much I would recover. I had no choice but to use my brain (and mind) to get better. And I did. I wrote about my first 15 years of recovery in a memoir recently published by Springer titled *NERVE* (figure 2).

When and where were you happiest?

Now. Take every moment for what it gives and what you can give it.

What is your most marked characteristic?

It is my expressiveness. I talk not just with my voice but with my hands and body.



Among your talents, which one do you think gives you a competitive edge?

Not being afraid to ask questions. I always like to say there is no such thing as a dumb question; the only dumb thing is not asking one. Not asking questions means you do not know what you do not know, which can be dangerous.

What is a personality/characteristic trait you wish you had?

More confidence that people value me for who I am.

What do you consider your greatest achievement?

Helping others. Writing the book *NERVE* was about giving people hope and helping them develop resilience. Using your strengths to cope with weaknesses, and we all have weaknesses.

What do you most value in your friends?

A sympathetic ear. A willingness to listen.

Who are your favorite writers?

RD Robb, Yotam Ottolenghi, Jamie Oliver, Olivier Sacks, and Malcolm Gladwell.

Who are your heroes of fiction?

It depends on what I need to inspire me at the time, and then I read fiction.

Who are your heroes in real life?

I do not have a single hero. I love to collect quotes and use the wisdom of others in the moment to remind me to value what I am experiencing.

What aphorism or motto best encapsulates your life philosophy?

I have two: "Never give up." "Life is not measured by the number of breaths you take but by the moments that take your breath away."

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