

## Genomic Psychiatry

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### INNOVATORS & IDEAS: RESEARCH LEADER

# Maria A. Oquendo: The translational pathway from the elucidation of the biological contributions to suicide risk to the development of interventions aimed at preventing morbidity and mortality

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**Dr. Maria Oquendo is Ruth Meltzer Professor and Chairman of Psychiatry at University of Pennsylvania and Psychiatrist-in-Chief at the Hospital of the University of Pennsylvania. A summa cum laude graduate of Tufts University, she attended College of Physicians and Surgeons, Columbia University and completed residency at Payne Whitney Clinic, New York Hospital, Cornell. She is a member of the National Academy of Medicine, one of the highest honors in medicine. Dr. Oquendo has used Positron Emission Tomography and Magnetic Resonance Imaging to map brain abnormalities in mood disorders and suicidal behavior. Her expertise ranges from psychopharmacology to Global Mental Health. She has over 500 peer-reviewed publications, an H-index 116 and 49,472 citations (Google Scholar). In terms of organizational leadership positions, Dr. Oquendo is Past President of the American Psychiatric Association (APA), the International Academy of Suicide Research, the American College of Neuropsychopharmacology (ACNP), and the American Foundation for Suicide Prevention's Board of Directors. She is Vice President of the College of International Neuropsychopharmacology and has served on the National Institute of Mental Health's Advisory Council. Dr. Oquendo serves on Tufts University's Board of Trustees, serves on its Executive Committee and chairs Tufts' Academic Affairs Committee. A recipient of multiple awards in the United States, Europe, and South America, most recently, she was honored with the Symonds Award (APA 2017), the APA's Research Award (2018), the Shockley Award (ACNP 2018), and the Glassman Award (Columbia University 2021). Dr. Oquendo has shared some of her thoughts and perspectives on her life and career.**

#### **The Genomic Press Interview Part 1: Maria Oquendo: Life and career** **Could you give us a glimpse into your personal history, emphasizing the pivotal moments that first kindled your passion for science?**

I have loved mathematical concepts and numbers since middle school, but I also cherished language, art, and design. I originally thought that Architecture would help me meld these interests, yet the liberal college I attended did not offer such studies. Thus, I focused on theoretical math and Romance language literature. The rest of the trajectory to medicine is a yarn, but suffice it to say that at no time during my teens or twenties did I consider scientific inquiry my calling. I viewed science as key training to support pragmatic applications: architecture, medicine. And so, I finished residency in Psychiatry and chose a position as a teaching faculty member in a busy clinical service. It was not until I had been in that position for 8 years that I began to think about other opportunities. Fortuitously, one of my residency supervisors was recruited to Columbia University, where I was on the faculty. He was one of my research mentors during residency. A key point is that he knew I would work hard and offered me a full-time position on his team. I was not sure I would like the job. In fact, I thought



**Figure 1.** Maria A. Oquendo, MD, University of Pennsylvania, USA.

there was a good chance I would hate it. But I was wrong. The experience was transformational. I loved thinking about how to interpret data, I loved statistics, I loved writing papers, carefully and methodically delineating the approach, the analysis, the results, and the conclusions. I even loved writing grants. I was in heaven. Even though I have had several administrative positions, it is undeniable that the core of my professional identity is as a scientist.

#### **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?**

Many of my students and mentees have asked me how I forged the path to becoming Chairman of a major Department of Psychiatry. They are mostly taken aback when I tell them that I did not plan it at all and that I am as surprised as the next person that it happened. I also tell them that many leaders at my level have shared with me that their experience was not so different. It was not planned. It was the result of responding to opportunities even when doing so was not aligned with a personal vision of the trajectory. For example, when I shifted from a faculty position as a clinical educator to a research psychiatrist, I did not have any leadership responsibilities. However, within a few years, my mentor appointed me Director of the Clinical Lab for what was then the Division of Neuroscience in





Psychiatry at Columbia. This was an opportunity I relished, and I did the job happily for 8 years until I was tapped by the Executive Vice-Chair of the Department of Psychiatry to become the Director of Ambulatory Research Clinics, of which there were 28 (!). I was far from sure that this administrative job was for me, but I applied the same methodical approach I used in research to understand what each clinic focused on and how it was organized. I wanted to know whether there was a need for a more uniform structure or whether the clinics used robust strategies in their management of clinical research patients in terms of safety, rigor, and productivity. I wanted to understand what their scientific output was and how each research clinic supported its efforts. Were they supported solely by state resources (after all, this was the New York State Psychiatric Institute which houses the Columbia University Department of Psychiatry) or did they have foundation or federal grants? Did they rely on philanthropy or did they use income from pharmacological trials or consultations? Suffice it to say that I learned a lot, but within one year, the Chairman of the Department tapped me to become Vice-Chairman for Education and Training Director. Here too, I was quite ambivalent about the role. I was concerned that it would be all-consuming and take me away from my science or worse, that it would bore me. Nonetheless, I decided to give it a whirl. This ended up being a key step in the journey towards Chairmanship. The Chairman of the Department also urged me to run for President of the American Psychiatric Association. Nothing could have been further from my mind. To me, such a step was misaligned with my goals and would probably drive me insane because of the politics, to boot. Soon, I had leaders from around the country calling and emailing asking me to run. My Chairman was insistent and after all, he was my boss. So, I went ahead. I was stunned to see how fun, yet difficult it was. It amused me no end that at international conferences, psychiatrists whom I had never met came up to me to have their picture taken with me. I was honored that so many people seemed to trust me to lead. It turned out this, too, was an important imprimatur for being considered "Chairman material." It should not have surprised me that high visibility married with academic chops was an excellent combination to be seen as a leader, but it did.

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

That the focus of my work has been on suicidal behavior was happenstance. I was not looking to do research per se, but when my mentor approached me to work in a clinical research lab, I said my interest was in depression and cross-cultural issues related to it. I started off with that, but soon gravitated towards the mainstream work of the lab because that is where most of the biological focus was. It was clear to me that biological work was the most highly valued in that lab. I learned about positron emission tomography, cerebrospinal fluid studies, postmortem brain studies enough that I could conduct some of the statistics and interpret the data. It turned out that neurobiology was some of the most interesting part of the work to me.

**What kind of impact do you hope to achieve in your field through your focus on your specific research topics?**

I hope to raise scientific awareness of the biological contributions to suicide risk which can translate to interventions to prevent morbidity and mortality. I also hope to decrease clinician's anxiety about managing suicidal patients using implementation science strategies.

**Could you tell us more about your current scholarly focal points within your chosen field of science?**

I have been working on delineating the risk for suicidal ideation and behavior among persons who do not meet the criteria for psychiatric disorders. As a departing point, I have focused on raising scientific awareness about the frequency with which suicidal behavior occurs unaccompanied by other psychiatric morbidities. When I first started writing up the data, I was stunned by how married the field was/is to the notion that suicidal behavior only rarely happens absent at least one psychiatric disorder. Data documenting the contrary appeared in publications but went unmentioned in discussions, never mind the titles of articles. The

prevailing clinical lore is that if suicidal behavior occurs without mental illness, it must be because the disorder is "masked." The data that contradicts that notion abounds and requires scientific attention for what it does: defy our current clinical wisdom.

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

Attention to detail, internal logic in formulating research studies and writing manuscripts, and lucidity and linearity in writing.

**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 you think warrant transformative scrutiny, or is there a cause within science that deeply stirs your passions?**

Many people talk about this, but to me, the metrics to measure productivity and quality in research are heavily biased toward western scientists' work and in medicine, toward basic science. We must do better.

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

I love discussing ideas for experiments and studies as well as writing grants and manuscripts. As a Chair, I enjoy encouraging faculty who don't usually work together to collaborate on an important research opportunity and seeing what they come up with.

**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 very much enjoy traveling and appreciate diversity in what I do. In some cases, the goal is to enjoy cultural aspects of the location (history, local culture, art, music, architecture), but at other times it is more about the gastronomy of the place, and not necessarily in fancy establishments. I also thoroughly enjoy nature and am an avid hiker although not a mountaineer, by any stretch! For me, it is about being outside, exploring habitats with their flora and fauna, and soaking in vistas with a day pack and my recently acquired, and immediately beloved, walking sticks for more challenging treks.

**The Genomic Press Interview Part 2: Maria Oquendo: Selected questions from the Proust Questionnaire<sup>1</sup>**  
**What is your idea of perfect happiness?**

A day at the beach, sitting in the shade, watching the waves roll in.

**What is your greatest fear?**

Losing my memory.

**Which living person do you most admire?**

Sonia Sotomayor.

<sup>1</sup>In the late 19th 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.



**What is your greatest extravagance?**

I love jewelry. I buy it sparingly and carefully. It is an interest that I shared joyfully with my late mother who bought me jewelry as a youngster. I relished going to jewelry shops with her as she aged and buying her lovely pieces that captured her fancy.

**What are you most proud of?**

My sons are kind, compassionate, considerate, hardworking, wonderful people.

**What is your greatest regret?**

At the risk of sounding glib, not doing a junior year abroad in college.

**What is the quality you most admire in people?**

In Spanish, one can describe a person as noble. It has nothing to do with lineage. It is about kindness, morality, and compassion.

**What do you consider the most overrated virtue?**

Carefreeness.

**What is your favorite occupation?**

Architecture.

**Where would you most like to live?**

I am hoping to spend a year living in Spain, my country of origin, in the next years. Although it would ideally be in Barcelona, there are many wonderful places in Spain I would love to call home.

**What is your most treasured possession?**

By far, my sense of humor.

**When and where were you happiest? And why were so happy then?**

I would say that with each passing year, I feel happier. I think that the wisdom that accrues brings peace and perspective. Even though many things decline with age, the accrual of wisdom overshadows those losses.

**What is your most marked characteristic?**

A propensity for raucous laughter.

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

A natural inclination to tell people what they do well or about positive things I have heard about them.

**What do you consider your greatest achievement?**

Election to the National Academy of Medicine.

**If you could change one thing about yourself, what would it be?**

My tendency to angst about the future.

**What do you most value in your friends?**

Integrity, trustworthiness, intelligence, humor, and warmth.

**Who are your favorite writers?**

Favorite current writers include Jill Lepore and John McPhee. Also, Gabriel Garcia Marquez, Alejo Carpentier, Julio Cortazar, and Jorge Amado.

**Who is your hero of fiction?**

I don't tend to think that way. Everyone has foibles.

**Who are your heroes in real life?**

As above.

**What aphorism or motto best encapsulates your life philosophy?**

Do the right thing. To which I would add, "timely."

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