



# Amplifying Scientific Innovation

HOW MY PASSION FOR SCIENTIFIC  
STORYTELLING EMPOWERED  
MY INTERNATIONAL AND  
INTERDISCIPLINARY JOURNEY

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# **Amplifying Scientific Innovation**

*How My Passion for Scientific  
Storytelling Empowered My  
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Journey*

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*To my family in Nigeria, America, and Canada, and  
all the people worldwide who empower me daily  
in my lifelong mission of amplifying scientific innovation:  
I salute and treasure you.*

## Contents

<b>INTRODUCTION</b> .....	<b>3</b>
<b>PART 1: MY AFRICAN CRADLE</b> .....	<b>12</b>
<b>PART 2: BECOMING AN AMERICAN WOMAN IN SCIENCE</b> .....	<b>39</b>
<b>PART 3: LAUNCH OF A MISSION-DRIVEN ENTREPRENEUR</b> .....	<b>67</b>
<b>EPILOGUE</b> .....	<b>97</b>
ACKNOWLEDGMENTS .....	103
COMPREHENSIVE REFERENCES .....	106
INDEX .....	123
ABOUT THE AUTHOR .....	140

## INTRODUCTION

**VISIONS RARELY COME WITH ROAD MAPS** or tour guides for physical guidance. Yet, I dared to dream beyond the present in a small sub-Saharan African town. I visualized science as the light at the end of the tunnel that guides humanity through unknown paths with the belief that something better lies ahead. I also imagined a tomorrow where people cared about what I was thinking and what I had to say relative to my daily realities, where it wasn't ladylike to have opinions or desire a fulfilling career as a young woman in a paternalistic society.

Decades later, and over 12,000 miles from my Nigerian cradle, I am publishing my first memoir, *Amplifying Scientific Innovation: How My Passion for Scientific Storytelling Empowered My International and Interdisciplinary Journey*. It feels like a full circle moment, evocative of a succubus journey to self-discovery and growth, personally and professionally.

I'm also relaunching my consultancy's Amplifying Scientific Innovation Video Podcast where I have previously featured 64 world class leaders, including Dr. Karen Knudsen, CEO of the American Cancer Society, Bert Bruce, President, Rare Disease North America, Pfizer Inc., and Dr. John Whyte, Chief Medical Officer, WebMD. Connecting the dots between science and humanity has always been enthralling for me.

I'm also excited that my first guest for the Fall 2024 relaunch is my namesake, Sophia The Robot, Hanson Robotics Limited's first humanoid robot.

Extraordinarily, a robot brought me joy during a period of despair where I was struggling to find hope and to believe again. Something in me urged me to reach out to Hanson Robotics because I wanted to connect with my namesake, Sophia, and to revitalize my purpose again. It felt surreal to interview artificial intelligence (AI) as a video podcast guest. But I've always been futuristic, imagining what's next while finding innovative ways to ignite excitement about science.

## AMPLIFYING SCIENTIFIC INNOVATION

True to the essence of my name, since childhood, I have aspired to be a philosopher, a word that originates from the Greek word *philosophos*, denoting lover of wisdom, as *philo* represents love and *sophy*—like Sophia—means wisdom.

Today, I hold a Doctor of Philosophy (PhD) degree in Pharmaceutical Science with a concentration in Medicinal and Natural Product Chemistry. Indeed, the parallels between the inception of my name and my career trajectory are significant to my legacy.

In my first memoir, *Amplifying Scientific Innovation*, I share a reflective and empowering story in three parts, representing critical points in my journey to self-discovery and growth as an immigrant, scientist, entrepreneur, and lifelong leader.

I also reference numerous high-quality publications and perspectives from the influential leaders featured on my consultancy's Amplifying Scientific Innovation® Video Podcast to substantiate my anecdotes and insights. Like me, the target audience is diverse and global: STEM professionals, women in science, early career students, entrepreneurs, immigrants, millennials, career changers, lifelong learners, and aspiring and established leaders.

In Part 1: My African Cradle, I narrate my humble beginnings in a small Nigerian town, how my innate curiosity and heightened awareness of health disparities spurred my career as a scientist and provide insights from my formal leadership debut as an adolescent in a rural boarding school.

In Part 2: Becoming An American Woman in Science, I explore early beginnings in my first adopted home, Ohio, and how my first National Science Foundation (NSF) cancer research experience permanently shaped and influenced my professional advancement.

Finally, in Part 3: Launch of a Mission-Driven Entrepreneur, I discuss the inspirations behind founding my small business in New York and re-establishing it in California as well as the financial and emotional rollercoasters of growing and scaling my life science strategy consulting firm.

Ever the scholar, I integrated the physical sciences, particularly the laws of physics and the subfields of chemistry, alongside knowledge propelled by the biological sciences, biology and medicine, alongside the social sciences, economics, sociology, psychology, and the study of humanity, otherwise known as anthropology.

This book has the potential to serve as a series where I continue to populate additional insights from my African childhood, time in the

## AMPLIFYING SCIENTIFIC INNOVATION

laboratory, and continued entrepreneurial experiences in a structured but predictable manner for the readership that I hope to build from my scrappy self-publishing endeavor.

For instance, it makes sense to explore my dynamic journey as a mompreneur and the age-old struggle with work-life balance. I am also planning to have conversations with and about AI across multiple platforms, from my video podcast to international conferences.

Storytelling is the heartbeat of science, and the varied forms of scientific communications enlivens innovations daily, amplified through emerging technologies and social media, further justifying the continued need for science advocacy.

Moreover, communication is paramount to all fulfilling relationships, business or personal. I have learned to be more self-aware in my approach to presenting a balanced narrative, and being more insightful in reading between the lines, so it's not all about me, but it's not all hard science, either.

Besides, communication is ultimately about finesse, necessitating respect in tone and approach because, in any language, *how* you say things usually matters more than even *what* you say.

Building The Sophia Consulting Firm was my fairytale come to life—an environment where I could flourish while bringing hope to others.

In June 2020, when I launched the Amplifying Scientific Innovation Video Podcast, we were dealing with two pandemics: first, the COVID-19 global outbreak, and second, the pronounced fight for social justice in the United States.

On February 12, 2020, the World Health Organization (WHO) declared COVID-19 a global health emergency following its initial discovery in Wuhan, China, in late 2019 (F. A. Rabi, M. S. Al Zoubi et al. 2020).

The outbreak escalated quickly from there, during a period of uncertainty about how the virus was transmitted, how quickly it could spread and how much of a threat it was to public health and safety.

Roughly one month later, on March 11, 2020, the WHO declared the novel COVID-19 outbreak a global pandemic, and subsequently named the virus severe acute respiratory syndrome coronavirus 2 or SARS-CoV-2 (WHO 2020).

Furthermore, on May 25, 2020, the traumatic death of George Floyd was captured live by bystanders (Amy Harmon Audra D. S. Burch, Sabrina Tavernise and Emily Badger 2021, History.com 2020-). It resulted



## AMPLIFYING SCIENTIFIC INNOVATION

in what History.com describes as “possibly the largest protest movement in U.S. history and a nationwide reckoning on race and policing”(History.com 2020-).

I am no stranger to racism, misogyny, discrimination based on my nationality, microaggressions, sexism, and its many ugly forms. Though belated and generally unfortunate, it seemed like the world was finally paying attention to the plight of Black people in America.

Yet, about two months later, in July 2020, 41 percent of Black-owned businesses—approximately 440,000 enterprises—were shut down by COVID-19, compared to just 17 percent by White-owned companies(Rodney A. Brooks 2020).

Undoubtedly, the stress resulting from the coronavirus, years of systematic racism, and economic disparities posed significant challenges for Black businesses like mine.

I also inherently understood the significance of the moment. So, even outside of personal qualms, I felt strongly that there was a strong, unmet need for experts to advocate for innovations and relevant issues they believe to be in the public interest(T. Nichols 2017).

So, despite my apprehensions, I decided to give free realm to my curiosity and leverage my inner heroine to bolster the courage needed to introduce myself to the world in a new role: podcaster.

Certainly, I can't deny that writing has always been my favorite tool for kindling and sustaining excitement about science advocacy, health equity, and influential leadership—the three-pronged focus of my consultancy's platform.

Since my pre-pandemic entrepreneurial debut in the summer of 2019, I featured 64 influential life science leaders from over 50 leading life science organizations on the podcast, partnered with numerous editors and strategic partners, authored over 20 print and online editorials in leading scientific, industry, and consumer business media outlets like WebMD, MIT Technology Review, Life Science Leader, Cell & Gene, Inquirer, Entrepreneur, Inc., and Medscape(The Sophia Consulting Firm 2019-).

But podcasting changed my life by enabling me to understand the power of listening while unleashing a more charismatic and engaging version of myself that was not afraid to *try* at times of uncertainty and hopelessness.

Besides, there is a tendency for the word innovation to be overused almost to the point of triteness, further demonstrating the perennial need for novel communication tools.

## AMPLIFYING SCIENTIFIC INNOVATION

Innovation is like a shadow that follows us daily, challenging us to find new ways of philosophizing, strategizing, rationalizing, deciphering, and understanding the phenomena around us while improving existing knowledge, discoveries, and inventions.

The challenge remains in identifying what is real and what is a red herring, something unsafe or ineffective, pretending to be good. My contribution as a life science strategy consultant, is to adopt a systematic approach to scientific storytelling by magnifying the interconnectivity between scientific innovation and influential leadership in a relatable and publicly accessible manner.

Yet, through intuition and insights from my international and interdisciplinary experiences, it's evident that people generally see scientific storytelling as challenging and rather dull because of the subject matter itself: science.

*Encyclopedia Britannica*, the world's oldest continuously published encyclopedia, describes science as “any system of knowledge that is concerned with the physical world and its phenomena and that entails unbiased observations and systematic experimentation, which involves a pursuit of knowledge covering general truths or the operations of fundamental laws”(Britannica 2023).

A scientist typically starts with a hypothesis that is rigorously tested through a series of experiments to come up with a conclusion that can describe, support, or even refute the phenomenon.

The most well-founded scientific ideas also come with an awareness of inherent bureaucracies and bottlenecks within the life science industry, which when combined with regulatory hurdles and global market dynamics seem insurmountable.

Of note, the life science industry is made up of organizations operating in the research and development (R&D), manufacturing, and commercialization of pharmaceuticals, biotechnology-based food and medicines, medical devices, biomedical technologies, nutraceuticals, cosmeceuticals, food processing, and other products that improve our lives(Laura McCullough n.d., Scilife 2023).

I can't think of a time the life science industry was more relevant than during the pandemic. There were many false narratives that was further amplified by social media where some Americans seemed to be “wearing their rejection of expert advice as a badge of cultural sophistication”(T. Nichols 2017).

Besides, the accessibility of information online and on social media can be overwhelming and misleading, thus showcasing the essence

## AMPLIFYING SCIENTIFIC INNOVATION

of science advocacy and expert guidance.

COVID-19 was a definitive showcase of how much we rely on science to help us carve out answers to radically obscure questions and solutions for even the most ambiguous of problems.

Science is often associated with the left side of the brain as being logical and analytical, whereas the arts typically represent the right brain with creativity and whimsicality.

When properly integrated, our intrinsic and collective artistic and scientific prowess can propel our spheres of thinking as we strive toward a thoughtful balance of intellectual prowess and emotional intelligence.

But, unlike science, leadership is more complex to define but easy to identify because it ultimately boils down to *influence*, the capacity to have an effect on others, and the power to be a compelling force (Dictionary.com 2024).

Whether you are a laboratory scientist or a corporate leader, identifying innovative solutions for existing and arising problems is a crucial requirement for all stakeholders, from consumers and patients to colleagues and investors.

Though the scientist may be more meticulous in approach, proper observation, documentation, data analysis, interpretation, presentations and publications, insight, and intuition are required to draw accurate conclusions and sustain innovation.

I have spent the bulk of my career studying chemistry. Technically, chemistry is the study of matter, anything that has mass and occupies space and, in turn, anything that can be touched or held. Chemistry is also about how we get along with others and how we make them feel. It is extraordinary how chemistry seamlessly integrates into every facet of our lives, including school and workplace dynamics.

Certainly, scientific storytelling is an art, broad strokes of ingenuity mixed with delicate paintings of pragmatism, filling in the blanks for unanswered questions, challenging how far you can take an idea, and upholding what you would sacrifice for your curiosity.

Undoubtedly, curiosity and problem-solving go together, often intertwined with an unmet need and a desire for improvement. For instance, even the mission of the National Aeronautics and Space Administration (NASA) emphasizes the significance of curiosity in advancing humanity.

NASA's mission is to "explore the unknown in air and space, innovate for the benefit of humanity and inspire the world through discovery" (NASA 2023).

## AMPLIFYING SCIENTIFIC INNOVATION

Giving back through knowledge sharing and resource pooling is foundational to my leadership style and approach because I know firsthand that merits, talents, and accolades do not always result in opportunity.

Besides, “knowledge is power”(PhD Azamfirei L Md 2016), as quoted in his 1597 collection of essays *Meditationes Sacrae* (Sacred Meditations) and *Human Philosophy* by Sir Francis Bacon, the renowned philosopher, scientist, and Lord Chancellor of England.

The circuitous realm of knowledge is further substantiated by the roots of Sir Bacon’s quote, which has been attributed to a proverb in Sanskrit — an ancient Indian language, which states that kings are only celebrated in their countries whereas scholars are celebrated everywhere.

Therefore, it is critical for us as a society in the myriads of roles that we play from parents to principals of schools and consulting firms, we should encourage the pursuit of knowledge.

Furthermore, Sir Bacon is also associated with creating the scientific method. The Scientific Method itself is built around the idea of skepticism(Britannica 2024). A well-constructed hypothesis can either dispute or substantiate existing knowledge based on careful observations and reasonable deductions.

I have persevered through intense skepticism and major setbacks by leveraging a heightened awareness of what I need to do and focusing on skillful execution and commitment to growth.

Besides, fame was never the mission instead, it’s always been about global impact through amplifying scientific innovation.

Science powers my creative imagination, especially when it comes to thinking of new ways to educate and engage others. I’m fascinated by the boldness and wisdom that curiosity gives you and the interconnectivity in the questions we seek answers to.

Once you become accustomed to the intrinsic spark of inquisitiveness, you continuously return to the drawing board to find new ways to be creative. I have integrated my personal and professional spheres over the years to create a new version of myself that I deeply admire.