

Africa Storytelling Challenge— Notable Submissions: In Yvonne Mburu's Words

Committed to championing scientific innovations and advancements, Mburu is affecting change in her community and throughout Africa—and this year's judges of the Africa Storytelling Challenge lauded these impressive efforts. Recognized as a runner-up in this year's contest, Mburu shares her essay submission below.

The diagnosis came on a Saturday afternoon in May 2012. Devastating news. Lung cancer. Stage IV. My aunt. So began my family's abrupt foray into the wilderness of cancer treatment in Kenya. Finding the best referral hospitals, researching the latest therapies, discovering that there were only fourteen (14!) oncologists in Kenya, a country of 48 million people. Seeking medical treatment in the country did not seem like a wise option; perhaps treatment abroad was the solution. But where? Asia? Europe? The United States? What about the costs? And more importantly, why in this day and age of accelerated discoveries, technological advancements and multiplexed solutions were we still seeking solutions outside the continent?

The irony, in fact, is that I am a Kenyan scientist living and working in Europe, trained in immunology and cancer research. Despite being involved in innovative research on new cancer therapies that were providing renewed hope against cancer, I knew deep down that my research was not going to be applied in Kenya anytime soon. The fact that I am Kenyan did not seem to factor into this tragic reality. Indeed, there are more Kenyan oncologists working abroad than there are in Kenya. Extrapolate this uncomfortable truth to the rest of Africa and the human toll of the brain drain phenomenon that is perpetuating a human resource gap in science and medicine becomes excruciatingly evident. As far as beneficiaries of cutting-edge technologies go, the global architecture often relegates Africa to last place – a humanitarian basket case. That there are Africans living and working abroad and contributing to groundbreaking global discoveries matters little in this sly equation.

So, I am changing that. I founded Nexakili.

Nexakili is a social and professional network whose vision is to solve the brain drain problem by creating global knowledge communities of African scientists and health professionals. We aim to be the #1 professional network for scientists and health professionals in Africa and in the African-diaspora. Our mission is to map scientists and health professionals of African-descent all over the world and recruit

them onto our platform for the purpose of promoting interdisciplinary teams of scientists, technologists, engineers, and mathematicians who have a special interest in applications on health and medicine on the African continent. Our objectives are (1) to revolutionize the practice of medicine and scientific research in Africa by deploying the collective brainpower and resources of members; (2) to facilitate knowledge-exchange and collaboration of our members across regions, sectors and disciplines; (3) to mobilize African expertise towards improving health outcomes on the African continent and catapult African research onto the global scene; and (4) to eliminate any obstacles to diaspora involvement in addressing the scientific and healthcare objectives in Africa.

My co-founder, a diaspora scientist, is an electrical engineer currently on a post-doctoral fellowship at Stellenbosch University in South Africa, working on machine learning in acoustic monitoring for the purposes of developing an artificial intelligence tool for diagnosing tuberculosis. He is passionate about the use of social networks and digital technologies to address issues of scientific underrepresentation of Africans, including women and minorities. Indeed, he is building the algorithms we are using on the Nexakili platform and is the Chief Technology Officer on the team.

Using big data analytics, we have begun the ambitious mapping exercise to establish the location and skills of the global African diaspora. By illuminating the expertise of the diaspora, Nexakili will maximize their collective potential to advance scientific research and development in their native countries. At the core of our engagement is the commitment to involve all Africans in a new partnership model fostering trust, diplomacy and collaboration between Africans living abroad, their host countries and their native countries. Nexakili intends to leverage these professional networks as a powerful driver of inter-continental cohesion and scientific cooperation.

My beloved aunt passed away 6 months after her diagnosis: the cancer was too advanced and the health system in Kenya too weak. This painful experience sparked an inextinguishable fire in me to break the vicious cycle in which a steady exodus of African professionals is rivaled only by the corresponding stream of African patients seeking treatment away from the continent. Our mission with Nexakili is to create a framework that allows diaspora professionals like me to transfer their human capital by contributing either in person, or remotely, towards tangible progress in their native countries. Nexakili facilitates the transfer of knowledge and collaborations between African professionals worldwide in order to accelerate the availability of innovative research in Africa, and ultimately improve health outcomes on the continent.

I want to create a more cohesive, more equitable, more just world. I am passionately preoccupied with modeling the future of healthcare, and the use of technology to overcome traditional barriers by mobilizing global expertise to participate in local solutions, particularly in emerging economies. I want to contribute to restructuring the global balance of power in favor of more equitable distribution of global scientific knowledge. In this daring journey, I take great comfort in the words of Louis Pasteur, the father of modern

microbiology: “Science knows no country, because knowledge belongs to humanity, and is the torch that illuminates the world.”

The content and views presented here are those of the individual Challenge participant.

About the Africa Storytelling Challenge

The inaugural [Champions of Science—Africa Storytelling Challenge](#) took place between May and August 2018. Open to all scientists doing innovative work in Africa, the contest drew more than 100 submissions. An independent selection committee of scientists, policymakers and science journalists reviewed the applications and selected the winners. Each winner will be awarded \$5,000 and will have the opportunity to share their stories at the 2019 American Association for the Advancement of Science (AAAS) annual meeting in Washington, D.C.