



Dr. Rafiou Agoro

African Diaspora Scientists as Drivers of International Science Collaboration in Africa

Dr. Rafiou Agoro, a scientist from Togo, is a Postdoctoral Fellow in Medical and Molecular Genetics at the Indiana University School of Medicine. He received a doctorate in immunology at Orléans University in 2016. Dr. Agoro is co-founder of the African Diaspora Scientists Federation (ADSF), which aims to provide a platform where African scientists in the diaspora, through an intra- and interdisciplinary approach, can respond to consultation requests from fellow scientists living and working in Africa, by providing opinions and analysis on specific topics. Through this Award, Dr. Agoro will create an ADSF mobile platform to connect scientists in Africa with African diaspora scientists in a broad range of disciplines to launch an ADSF brain circulation program, “Share One Hour of Your Science During Holidays.” This program will promote and organize hour-long scientific lectures or seminars during holiday visits of African diaspora scientists to Africa, as well as the creation of mentoring relationships, new partnerships, and collaborations, and the dissemination of scientific ideas among young African scientists. The mobile app, to be created from scratch, will be available on iOS and Android. The program is designed to boost and build scientific competence among the next generation of African scientists at an early stage.

According to the United Nations, by the end of the twenty-first century Africa will host 40 percent of the global population, a remarkable rise from 9 percent in the 1950s. This major growth, which undoubtedly will come with benefits and difficulties alike, reflects advances in medical science that have allowed for longer life spans. However, the recent Ebola epidemic and coronavirus pandemic in Africa exemplified some of the health crises the continent is still facing. Addressing these complex health crises as well as other challenges will require coordinated political action and commitment, as well as enlisting Africans themselves to shape the future of their continent. A key means of transforming Africa for the future is science and technology knowledge, as applied, for example, to the management of natural resources such as forests, rivers, and lakes; climate change threats; and health crises. The further development of science and technology in Africa will help in managing global threats as well. Indeed, the proof-of-concept of coronavirus spread across the world shows the dire need for improved medical knowledge and education in Africa and elsewhere. More scientific expertise is required to limit the damage of the next upcoming pandemic threat.

Due to the insufficiency of science and technology infrastructure, states across Africa send some of their promising scientists abroad to acquire novel knowledge; however, this results in the emigration of many highly trained and skilled African scientists. A case study of Togolese scientists in the diaspora provides insights about the current brain drain of African scientists to other countries. A fellowship program of

the Togolese government covers a five-year training program necessary to earn an engineering or master's degree, mainly in the sciences. After the training program (or even before), most students continue their university training by moving to countries with highly developed science infrastructures, such as France, Canada, or the United States, for a complementary PhD program and remain there permanently. Further analysis shows that these Togolese scientists tend to pursue careers in science, technology, and innovation, such as engineering, computer sciences, biological sciences, mathematics, and physics. Their expertise is exactly what Togo and other African countries need to spur wealth through knowledge, as other countries such as South Korea have demonstrated, and to complement wealth generated by human capital and natural resources. The goal of ADSF, and of the mobile app to be created through this award, is to close this gap by making available the expertise and research of African diaspora scientists to the resident African scientific community, thus strengthening its indigenous capacity to contribute to solving the problems facing Africa today. Building indigenous scientific capabilities in Africa will be critical for a continent predicted to contain 40% of the world's population by the end of the century.

As co-founder of the African Diaspora Scientists Federation, Dr. Agoro is a leader not only in promoting international scientific cooperation, but also in creating and fostering new relationships between African diaspora and Africa-resident scientists in a highly interdisciplinary, problem-focused manner. His innovative and exemplary work, which has already produced proven results, promises to be at the leading edge of international scientific cooperation for emerging countries, a key commitment and passion of Victor Rabinowitch's life's work.