



Position

Research Fellow II

Institution

Federal University of Agriculture
Abeokuta (FUNAAB)

Country

Nigeria

Education

PhD, Impact of microbes on
climate change and antimicrobial
resistance, Federal University of
Agriculture, Abeokuta, Nigeria,
(FUNAAB)

Mentor

Mrs. Iyabode Adekemi Kehinde,
Professor and Director Academic
Planning, Federal University of
Agriculture Abeokuta, Nigeria

Research Area

Impact of microbes on climate
change and antimicrobial
resistance.

Ariom Thaddaeus Obaji

2020 One Planet Laureate Candidate

From a young age, Ariom Thaddaeus Obaji desired to get a good education. This desire was mainly out of curiosity and the interest to be like his peers who attended school. Many hurdles lay in achieving this goal, including his humble background and customary community beliefs in the Ebonyi State of Nigeria. He enrolled in school despite his father's preference for him to take care of the family livestock. In school, he adapted quickly and took a great interest in reading.

He excelled in primary school, and upon completion, he won a scholarship to join a good government secondary school away from home. His father was adamant and believed that his son's success would be impeded in the new environment, and he ended up enrolling in a school near his home.

Ariom's drive to become a scientist made him move to a particular science school to complete his secondary school education. His attendance was irregular since he had to help in his mother's trading business to raise money for school needs. This did not hinder his performance. He was always top of his class and a student prefect throughout his time there.

The financial constraints remained even after Ariom enrolled at Ebonyi State University to study applied microbiology, forcing him to take study breaks to take on hawking.

When he was pursuing his Master's degree, he taught at a secondary school besides conducting business which interfered with his studies. But he persisted in his studies and eventually obtained a Ph.D. in epidemiology.

Ariom joined academia after his Ph.D. as a research fellow at the Federal University of Agriculture, Abeokuta, where he teaches and conducts research. His research focuses on health and food safety, food security, and climate change. The climate change angle of his research explores the role of microorganisms in climate change, an area that has not attracted much research attention. The rising temperatures raise the levels of disease-transmitting organisms, as the warmth encourages bacteria growth, providing them the opportunity to mutate and elude drugs that once quickly killed them.

He notes that, "We are not yet fully considering how microorganisms are facilitating increased global warming or how we can harness microbes to control greenhouse gases."

Of interest to Ariom also is antimicrobial resistance emanating from the widespread use of antibiotics by smallholder farmers in his country as growth promoters in food-producing animals. "How safe is that food?" he asks. Such practices enhance the risk of developing antibiotic resistance in livestock

with the associated risks for animals and humans. He considers his days of herding livestock as a young boy to have nurtured his interest in animal health. He sees his experience in the rural village as the foundation of his research interest because addressing the problems faced by his community is what he is doing:

“I want to research how I can replace antibiotics used as growth promoters in animals because of their harmful effect on our diet through animal and crop products. I also want to know why resistance to antibiotics increases with temperature. Now that climate changes, organisms saddled by nature to produce antimicrobial effects adjust to climate change and carry out their duty. Scientists should therefore go back to the natural environment to seek solutions to antimicrobial resistance,” he says.

Ariom envisions his career trajectory in academia. His goal is to become a professor, researcher, and expert adviser with significant food security and climate change discoveries attached to his name, particularly natural products to replace antibiotics as growth promoters.

For Ariom, the One Planet Fellowship will sharpen his scientific skills and offer him a range of technical and translational training opportunities. “I already see the Fellowship as a way of fulfilling my childhood dream. I am doing what I always wanted from childhood, but I didn’t know how to do it. It is from here that I will go wherever I want to.”

Scientific research is collaborative, so the skills and knowledge Thaddaeus will acquire from the Fellowship will be passed on to colleagues and students. He will apply his mentoring expertise to guide younger colleagues and students and train them in scientific

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and grant proposal writing and other skills.

The lack of funds to carry out desired research can be frustrating, especially for a young scientist without a sizeable professional support network like Ariom. He does not have the resources he needs for his research, but he is working with the director of research in his institution to have this resolved. He knows that the quality of his research will depend on the resources at his disposal.

Ariom Thaddaeus Obaji is one of the growing number of candidates selected to participate in the One Planet Fellowship. The One Planet Fellowship is a career development initiative that is building a robust pipeline of highly connected, inter-generational scientists equipped to use a gender lens to help Africa’s smallholder farmers cope with climate change. The One Planet Fellowship is funded by the Bill & Melinda Gates Foundation, the BNP Paribas Foundation, the European Union and Canada’s International Development Research Centre (IDRC). African Women in Agricultural Research and Development (AWARD) and Agropolis Fondation are jointly implementing the Fellowship.

Do you have any further questions? Send an email to: oneplanet.award@cgiar.org

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