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Mentoring women to become future leaders in science

Growing up in Uganda, Joanne Adero's dream was to be a doctor. But she could not secure her dream of studying medicine so instead opted to embark on a course in biomedical laboratory technology at Makerere University. A module on microbiology was the beginning of her love for science and discovered her passion for research that eventually led her to research on sweet potatoes.

Adero is a research assistant at the National Crops Resources Research Institute (NaCRRI) in Uganda where she is part of the Genomic Tools for Sweet Potato Improvement Project team. Besides developing genomics and modern breeding tools, the project emphasizes capacity building and empowering research staff of national partners to carry out molecular work within their programs.

Due to its outstanding effort in capacity building, BecA-ILRI Hub offers a perfect base to do training in the use of modern, high-end bioscience technologies including

genomics, genetics and bioinformatics tools to facilitate crop improvement and improve genetic gains in sweet potato.

Adero secured an opportunity to conduct research at BecA-ILRI Hub through the ABCF program. She says that coming to BecA-ILRI Hub was one of her best career decisions because it gave her the opportunity to develop her capacity in molecular biology, genomics and bioinformatics.

While at BecA-ILRI Hub, Adero worked on molecular variability of sweet potato viruses to understand the nature of viral disease-causing organisms that are heavily affecting production of sweet potato in Uganda. The project enabled the determination of sweet potato viruses that exist in Uganda and their genetic diversity and distribution. Ten different viruses were detected including sweet potato badnavirus and sweet potato symptomless virus which have not been previously reported in the country. The work also helped generate the full genome sequence of the sweet potato feathery mottle virus, sweet potato virus c and sweet potato chlorotic fleck virus in Uganda.

The Genomic Tools for Sweet Potato Improvement Project is funded by the Bill & Melinda Gates Foundation (BMGF) and led by the North Carolina State University (NCSU) in partnership with the International Potato Center (CIP), the Boyce Thomson Institute at Cornell University, Michigan State University, the University of Queensland, the Uganda National Agricultural Research Organization, National Crops Resources Research Institute, the Ghana Council for Scientific and Industrial Research, Crops Research Institute (CRI) and BecA-ILRI Hub.

Joanne Adero (right) with a colleague collecting disease data at the sweet potato trial fields in NaCRRI, Uganda.

