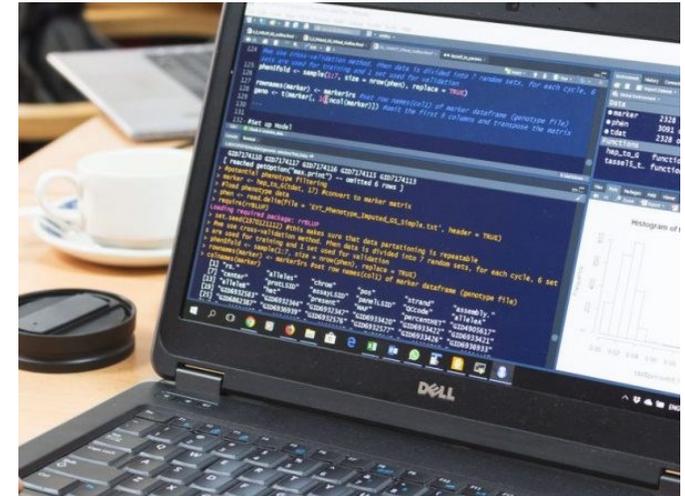


Empowering and Amplifying the ABCF Bioinformatics Community of Practice (BiX CoP) in sub-Saharan Africa to support accelerating the genetic improvement of crops and livestock



- Africa is expected to more than double its population between now and 2050. This population expansion and inevitable changes in dietary patterns will require sustainable production and consumption as well as prevention of crop diseases to ensure secure and resilient food systems.
- Generating and analysing genomic data could help increasing crop productivity through accelerated crop improvement and more sustainable pest management practices.

- Whilst the availability of genomic technologies and data is growing in Africa, a bottleneck has emerged, caused by a lack of human capacity and capability in data management and bioinformatics.
- The GCRF STARS funding supports to build a strong self-sustaining network of bioinformaticians in Africa with expertise in data analysis for agricultural biosciences. This project is lead by the **Biosciences Eastern and Central Africa-International Livestock Research Institute (BecA-ILRI)** Hub in Kenya with partners at the **John Innes Centre** and **Earlham Institute, UK**.



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"This programme is a testament to the quality of the Carpentries materials, the organisation of the partners, and the commitment from BBSRC and BecA-ILRI Hub to train the next generation of bioinformaticians in Africa. It's hugely exciting to be able to support the fellows, and see how their new skills can be used to empower themselves and their communities."

Dr Robert Davey, Earlham Institute

The programme includes three phases: Build, Empower and Amplify:

- A 26-week residential training programme is designed to **build** skills in various aspects of data science and bioinformatics in a cohort of 14 African fellows from 8 African countries
- The cohort is **empowered** by being trained and certified as qualified bioinformatics instructors to deploy their skills and knowledge with many other researchers within Africa.
- The impact of the cadre is further **amplified** by the development of online and open-access training modules as well as regional bioinformatics training workshops lead by alumni.



"Learning about bioinformatics and how to efficiently analyse data, select for better genotypes so we can have better varieties for the farmers builds on the goal of having a food secure country and continent."

Bernice Waweru, BiX CoP fellow at KARLO



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