

Thanks to the George Bredin Travel Fund, I was fortunate to spend the summer vac working as a research intern at the International Institute of Tropical Agriculture (IITA), based at ILRI in Nairobi, Kenya.



The research conducted at IITA focuses on the genetic improvement of staple food crops such as banana, cassava, and yam, with the goal of developing resistance to diseases and pests. The lab also works on creating transgenic and gene-edited products and transferring these technologies to national agricultural research systems across sub-Saharan Africa.

During my time at the IITA lab I worked in both the tissue culture lab and the molecular lab.

In the tissue culture lab, I worked hands-on with banana, cassava, and yam, learning essential techniques in in-vitro propagation and maintenance. This practical experience not only strengthened my technical skills but also deepened my understanding of how biotechnology can be applied to conserve, multiply, and improve staple crops vital to food security.



I also had the opportunity to work in the molecular biology lab, where I built on my knowledge of DNA extraction and genetic analysis from transgenic

plants. I gained valuable experience in core molecular techniques such as PCR and Southern blotting, which are central to identifying and validating genetic modifications in crops.



Beyond the scientific training, the internship was deeply meaningful because of the people I worked with. In the lab the main spoken language was Swahili which I loved as when I am in Oxford my swahili gets more rusty than I would like. Meeting young Kenyan scientists was so exciting as up until now I have felt disconnected to the science scene in Kenya due to so much of my time being spent in the UK these days. The lunch breaks were my highlight, everyone in the lab would sit and talk and share different dishes they had cooked at home. There is nothing better than a homemade chapati for lunch. We would all bring avocados and mangoes to share with many of these grown in my colleagues gardens.



Amelia Leakey Lowis
Biology
Pembroke College

