

Accelerating plant molecular biology in Africa through local manufacturing of reagents

Dr Jenny Molloy

Senior Research Associate at the University of Cambridge, UK and a

Group Leader at the International Centre for Genetic Engineering and

Biotechnology (ICGEB), Trieste, Italy

Friday, 06.06.2025, 11:00 AM (CET)

Lecture room 0.3 (Lecture Room 0.3 (Next to the GUM entrance)

Ledeganckstraat 35, 9000 Ghent, Belgium

online registeration via:

https://uso6web.zoom.us/meeting/register/9qNLwfQiRweFM495Atbq-w

or



Abstract

The supply chain for molecular biology reagents in Africa is slow and expensive, holding back researchers from putting molecular biology approaches into practice. Training in plant molecular biology and advanced techniques like gene editing is a valuable part of capacity building, but practical challenges remain in putting these techniques into practice in LMICs.

In this talk, she will explore some of the major bottlenecks in reagent access and the potential to overcome them through distributed manufacturing of reagents in Africa. In particular, she will discuss the work of the Reagent Collaboration Network (Reclone.org), which is driven by open source and open science approaches to knowledge sharing and co-development of molecular technologies, as well as organisations like Growmore Foundation and ISAAA Africenter, who are exploring new models for tools and partnerships to expand access to plant molecular biology for food security.

SCIENCE MEETS LIFE

VIB - International Plant Biotechnology Outreach (IPBO) Technologiepark 71 – 9052 Ghent – Belgium +32(0)9 331 36 94 ipbo@vib-ugent.be www.ipbo.vib-ugent.be



About the Speaker

Dr Jenny Molloy is a Senior Research Associate at the University of Cambridge and a Group Leader at the International Centre for Genetic Engineering and Biotechnology (ICGEB), where she develops open source technologies for engineering biology and biomanufacturing. Prior to this she was the Programme Coordinator of the University of Cambridge Strategic Research Initiative in Synthetic Biology and the OpenPlant Synthetic Biology Research Center. She has a DPhil in Zoology from the University of Oxford focused on genetic control of dengue mosquitoes.

Jenny's research is centered around local, distributed biomanufacturing of enzymes to enhance global capacity for biological research and advance applications in health and sustainability. Ongoing projects include developing open source DNA toolkits for recombinant protein expression using synthetic biology-based platform technologies, high-quality protein purification in low-resource contexts, open source microbial strain engineering, CRISPR-based molecular diagnostics for infectious diseases and enzyme-based carbon capture and upcycling.

Jenny is a former Fellow of the World Economic Forum Global Future Council on Synthetic Biology, a member of the OECD Global Forum on Technology Synthetic Biology Expert Group and since 2015 she has co-founded four social enterprises and nonprofits making open source tools more accessible to researchers and building communities for open source tool developers. She currently sits on the board of the US non-profit Open Science Hardware Foundation, the UK non-profit Beneficial Bio and the Kenyan NGO ISAAA Africenter.