



SOUTHERN AFRICAN BIOMANUFACTURING TRAINING HUB



**science, technology
& innovation**

Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA



CSIR

Touching lives through innovation



**SOUTHERN AFRICAN
BIOMANUFACTURING TRAINING HUB**



The CSIR-hosted **Southern African Biomanufacturing Training Hub (SA-BTH)** is pleased to announce the commencement of a course titled Single-use bioprocessing platforms for recombinant vaccine production in mammalian cells (A-BTH04), scheduled to start on Monday, **2 November 2026**. The course forms part of the Strengthening biomanufacturing capabilities in Southern Africa programme, supported by KfW Development Bank.

The programme aims to support training and development in the biomanufacturing sector, with a focus on developing a skilled and competent workforce in Africa.

SINGLE-USE BIOPROCESSING PLATFORMS FOR RECOMBINANT VACCINE PRODUCTION IN MAMMALIAN CELLS

The Biomanufacturing Training Hub's goal in offering this course is to contribute to the growth and development of the biomanufacturing sector in Africa through cutting-edge training delivered in partnership with local and international stakeholders.

The course is offered to postgraduate scientists and biomanufacturing professionals across Africa who are seeking industry-ready skills in recombinant vaccine process development within local and regional facilities and emerging vaccine programmes. A key aspect of the programme is to provide theoretical and hands-on training and skills development that will enable the local manufacture of biologics, vaccines, recombinant proteins and therapeutics. The programme aligns with several other initiatives focused on establishing vibrant biomanufacturing industries in Africa.

COURSE DESCRIPTION

The objective of this course is to equip participants with practical and theoretical competence in applying single-use systems to recombinant vaccine development and manufacturing using mammalian cell platforms. Participants will learn how these technologies enable parallel experimentation, process characterisation, monitoring and scale-up readiness. The course will strengthen participants' understanding of mammalian expression systems, upstream and downstream processing, sterile handling, analytical characterisation and Good Manufacturing Practice-relevant regulatory expectations. Through lectures, demonstrations, hands-on training and case studies, participants will design integrated workflows, assess media and feeding strategies, monitor critical process parameters and reduce contamination risk. This will support vaccine development, technology transfer and the strengthening of biomanufacturing capacity in Africa.

The programme combines online theoretical instruction with on-site practical demonstrations and hands-on laboratory training.

KEY AREAS OF DEVELOPMENT INCLUDE:

1. Single-use flask and bench-scale process development;
2. Understanding cell culture process flows;
3. Apply single use systems-based modular bioreactor platforms (e.g., Ambr®) for process characterisation in mammalian cell culture systems;
4. Use SUS in parallel experimentation to assess media formulations, feeding strategies and process parameters for optimal yield and quality;
5. Integrate SUS in early-stage upstream and downstream development to generate scalable, GMP-relevant data; and
6. Understanding how SUS contributes to risk mitigation in process development by reducing contamination risks, equipment turnaround time and variability.





COURSE DATE AND DURATION

ONLINE: 2 – 6 November 2026

ON-SITE TRAINING: 9 – 13 November 2026

DURATION: 10 days (**five days online** and **five days onsite** at the CSIR Pretoria campus)

COURSE DELIVERY

The course will be delivered in a hybrid format to facilitate the transfer of advanced knowledge and skills through:

- Hands-on training;
- Classroom-based lectures (online* and in person); and
- Workshops.



COST AND FINANCING

Please note that a maximum of 20 candidates will be selected. For South African candidates, the funding package includes:

- Course fees;
- Travel expenses and accommodation for on-site training; (flights for 10 participants from outside Gauteng)
- One return ground transfer between the airport and accommodation; and
- Daily ground transport between the accommodation and the CSIR (designated course venue)

Scholarships will be awarded to five participants from Africa based on the motivations submitted.

Please note that subsistence and travel allowances will not be covered.

WHO SHOULD ATTEND?

Preference will be given to the following candidates:

- Current staff in the biomanufacturing sector requiring skills expansion or upgrading;
- New or developing staff in the biomanufacturing sector;
- Identified staff members or new recruits for a biomanufacturing facility; and
- Staff from biomanufacturing facilities currently under construction that will require a skilled workforce.

APPLICATIONS from suitably qualified persons from all African Union member states will be accepted. Young African women are particularly encouraged to apply. Participation is limited to candidates who hold a Master's degree or PhD.

For enquiries, please email BIDC@csir.co.za.

IMPORTANT DATES

- **Deadline** for submission of applications: **28 September 2026**
- **Selected candidates** will be notified by **5 October 2026**

Applications should be submitted by completing the application form available [here](#).

