



SOUTHERN AFRICAN BIOMANUFACTURING TRAINING HUB



science, technology
& innovation

Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA



CSIR

Touching lives through innovation



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BIOMANUFACTURING TRAINING HUB



The CSIR-hosted **Southern African Biomanufacturing Training Hub (SA-BTH)** is pleased to announce the commencement of a course titled: Foundations of Biologics Manufacturing and Analytical Characterisation (A-BTH05), scheduled to start on **Monday, 25 January 2027**, as part of its Strengthening Biomanufacturing Capabilities in Southern Africa (BIOcapSA) programme supported by KfW Development Bank.

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

FOUNDATIONS OF BIOLOGICS MANUFACTURING AND ANALYTICAL CHARACTERISATION (A-BTH05)

The Biomanufacturing Training Hub's goal in providing this course is to help grow and develop the biomanufacturing sector on the African continent through cutting-edge training in partnership with both local and international stakeholders.

The course is offered to African scientists, researchers, industry professionals, technicians, and other stakeholders seeking to strengthen their knowledge and practical skills in the development, manufacturing, quality control, and characterisation of protein biologics. A key aspect of the programme is the integration of theoretical knowledge with hands-on practical training and skills development to support and strengthen local capacity for the manufacturing of biologics, vaccines, recombinant proteins, and other therapeutic products. The programme is aligned with broader continental and international initiatives aimed at strengthening Africa's biomanufacturing capabilities and contributing to the development of a sustainable and globally competitive biomanufacturing industry on the African continent.

COURSE DESCRIPTION

The Foundations of Biologics Manufacturing and Analytical Characterisation course provides participants with the theoretical knowledge and practical skills required for the purification, quality assessment and analytical characterisation of protein biologics. Participants will gain hands-on experience in chromatography-based purification, protein quality analysis using the fundamental principles of mass spectrometry with an emphasis on peptide mapping. The programme also exposes participants to industry-relevant workflows tailored to different sample types and research questions while fostering collaboration, problem-solving and knowledge exchange through interactive discussions and practical exercises.

This course will be delivered using a hybrid model, combining applied and advanced knowledge transfer through online lectures and hands-on training.

Key areas of development include:

- Recombinant protein expression;
- Downstream processing and multi-step chromatography purification;
- Chromatogram interpretation, purification optimisation, and troubleshooting;
- Protein quality assessment;
- Fundamentals and applications of mass spectrometry;
- Peptide mapping for protein identity, purity, sequence confirmation, and post-translational modification analysis;
- Analytical characterisation of protein biologics;
- Industry-relevant workflows for quality control and product characterisation; and
- Data interpretation, problem-solving, and collaborative decision-making in biomanufacturing.





COURSE DATE AND DURATION

DATES: 25 - 29 JANUARY 2027 (ONLINE) AND 1 - 05 FEBRUARY 2027

(ON-SITE TRAINING)

DURATION: 10 days (5 days online via Microsoft Teams, followed by 5 days at the CSIR, Pretoria, South Africa)

COURSE DELIVERY

The course is delivered using a hybrid format to transfer advanced knowledge, which includes:

- Hands-on training; and
- Online-based lectures.

*Please note that a reliable internet connection is required to participate in the online sessions. It is recommended that a good download and upload speed be at least 5-10 Mbps.

COST AND FINANCING

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

- All course fees;
- Travel expenses, including flights for 10 participants outside of Gauteng and accommodation for on-site training;
- One return ground transport from the airport to the accommodation; and
- Daily ground transport from the accommodation to the CSIR (the designated course venue)

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

Subsistence and travel allowance (S&T) will not be covered.



WHO SHOULD ATTEND?

Preference will be given to the following candidates:

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

Applications from qualified persons from all African Union member states will be accepted. Young African women are encouraged to apply. Participation will only be available to candidates having completed a master's or PhD] in applicable fields.

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

IMPORTANT DATES

- **DEADLINE FOR SUBMISSION OF APPLICATIONS:**
Friday, 13 November 2026.
- **SELECTED CANDIDATES WILL BE NOTIFIED BY:**
Monday, 23 November 2026.

APPLICATIONS should be submitted by completing the **APPLICATION FORM**.

