



SOUTHERN AFRICAN BIO- MANUFACTURING 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 “Advanced Downstream Processing for Biologics and Vaccine Manufacturing (A-BTH02)”, scheduled to begin on Monday, 5 October 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 skills development in the biomanufacturing sector, with a focus on developing a skilled and competent workforce across Africa.

ADVANCED DOWNSTREAM PROCESSING FOR BIOLOGICS AND VACCINE MANUFACTURING

The Southern African Biomanufacturing Training Hub offers this course to support the growth and development of the biomanufacturing sector across Africa through cutting-edge training developed in partnership with local and international stakeholders.

The course is designed for African manufacturers, scientists and other key stakeholders involved in the development and scale-up of biomanufacturing processes and products. A key component of the programme is the provision of theoretical and hands-on training and skills development to support local manufacturing of biologics, vaccines, recombinant proteins and therapeutics. This programme is aligned with several other initiatives focused on establishing vibrant biomanufacturing industries across Africa.

COURSE DESCRIPTION

Advanced Downstream Processing for Biologics and Vaccine Manufacturing is a biomanufacturing training programme designed to build theoretical knowledge and practical competency in downstream processing technologies used in the manufacture of vaccines, biologics, recombinant proteins and other biopharmaceutical products. The course combines online lectures with hands-on laboratory training and demonstrations, leveraging expertise from the CSIR and other external service providers. Participants will gain experience in key unit operations, including filtration technologies, tangential flow filtration (TFF), sterile filtration, integrity testing, purification processes, formulation, fill-and-finish considerations, quality control, regulatory compliance and process optimisation.

The programme aims to develop skilled biomanufacturing professionals capable of operating, troubleshooting and optimising downstream bioprocesses in research and industrial environments.

KEY AREAS OF DEVELOPMENT INCLUDE:

- Advanced downstream bioprocessing principles and operations;
- Product purification and recovery techniques;
- Normal Flow Filtration and TFF;
- Sterile filtration, virus filtration, and filter integrity testing;
- Process optimisation, troubleshooting and scale-up considerations;
- Single-use technologies and closed processing systems;
- Solid-liquid separation and centrifugation technologies;
- Chromatographic purification methods;
- Formulation, fill-and-finish and packaging considerations;
- Biopharmaceutical quality control and process safety;
- Raw material qualification and impurity profiling;
- Regulatory requirements for biologics and biopharmaceutical manufacturing;
- Introduction to Active Pharmaceutical Ingredients synthesis and modern continuous manufacturing technologies; and
- Practical operation of specialised downstream processing equipment.

These focus areas will equip participants with the knowledge and practical skills required to design, evaluate and optimise bioprocesses and related manufacturing systems.





COURSE DATE AND DURATION

DATE: 5 – 9 OCTOBER 2026 (ONLINE)

12 – 16 OCTOBER 2026 (IN PERSON)

DURATION: FIVE DAYS (ONLINE VIA MICROSOFT TEAMS)

FIVE DAYS (IN PERSON AT THE CSIR PRETORIA CAMPUS)

COURSE DELIVERY

The course will be delivered using an advanced knowledge-transfer approach that includes:

- Online classroom-based lectures; and
- Case studies with free access to a demo model.

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:

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

Scholarships will be awarded to five participants from across Africa, based on the motivation submitted as part of their application.

Please note that subsistence and travel allowances are not covered.

WHO SHOULD ATTEND?

Preference will be given to:

- 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 biomanufacturing facilities; and
- Staff from biomanufacturing facilities currently under construction that will require a skilled workforce.

APPLICATIONS are welcome from qualified individuals across all African Union member states. Young African women are especially encouraged to apply. Participation is open only to candidates holding a Master's degree or PhD within related fields.

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

IMPORTANT DATES

- **Deadline** for submission of applications:
10 September 2026
- **Notification** of selected candidates:
16 September 2026

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

