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: A process chemists toolkit: Modern approaches to pharmaceutical production (A-BTH06), scheduled to start on Monday, **9 November 2026**, as part of its Strengthening biomanufacturing capabilities in Southern Africa 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.

A PROCESS CHEMISTS TOOLKIT: MODERN APPROACHES TO PHARMACEUTICAL PRODUCTION (A-BTH06)

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

The course is offered to African manufacturers, scientists and other key players involved in the development and scaling-up of biomanufacturing processes and products. A key aspect of this programme is to provide theoretical and hands-on training and skills development that will enable local manufacturing of biologics, vaccines, recombinant proteins and therapeutics. This programme is aligned with a number of other initiatives that focus on establishing vibrant biomanufacturing industries in Africa.

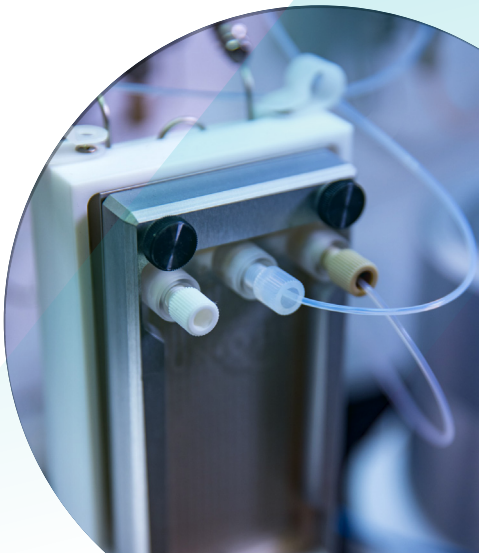
COURSE DESCRIPTION

The course provides foundational training in continuous manufacturing for drug substance production, focusing on small molecule active pharmaceutical ingredients. The course covers an introduction to process chemistry, transitioning from conventional batch manufacturing to continuous flow technology, downstream processing, quality assurance and quality control, techno-economic analysis and regulatory considerations. Through a combination of online lectures and hands-on training at CSIR facilities, the course equips African scientists, engineers and manufacturers with the skills to implement sustainable, efficient and localised continuous manufacturing of medicines.

This course will be delivered in a hybrid model of applied and advanced knowledge transfer in the form of online lectures and hands-on training.

KEY AREAS OF DEVELOPMENT INCLUDE:

- Introduction to process chemistry
  - Overview of conventional batch manufacturing, continuous flow technology and other chemical approaches
  - Process intensification
  - Green chemistry principles and sustainability
  - New trends in manufacturing
- Laboratory safety in Active Pharmaceutical Ingredients manufacturing
- Downstream processing
- Quality assurance and quality control
- Principles of biological validation
- Techno-economic analysis
- Regulatory considerations



COURSE DATE AND DURATION

DATE: 9 – 13 NOVEMBER 2026 (ONLINE) AND 16 – 20 NOVEMBER 2026 (ON-SITE TRAINING)

DURATION: 10 DAYS (ONLINE VIA MICROSOFT TEAMS AND AT THE CSIR SCIENTIA CAMPUS IN PRETORIA, SOUTH AFRICA)

COURSE DELIVERY

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

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

**Please note that a reliable internet connection is required to participate in the online sessions. A minimum download and upload speed of 5 – 10 Mbps is recommended.*

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 (flights for 10 participants from outside Gauteng) and accommodation for on-site training;
- One return ground transport service from the airport to the accommodation; and
- Daily ground transport from the accommodation to the CSIR (designated course venue).

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

Subsistence and travel allowance will not be covered.

WHO SHOULD ATTEND?

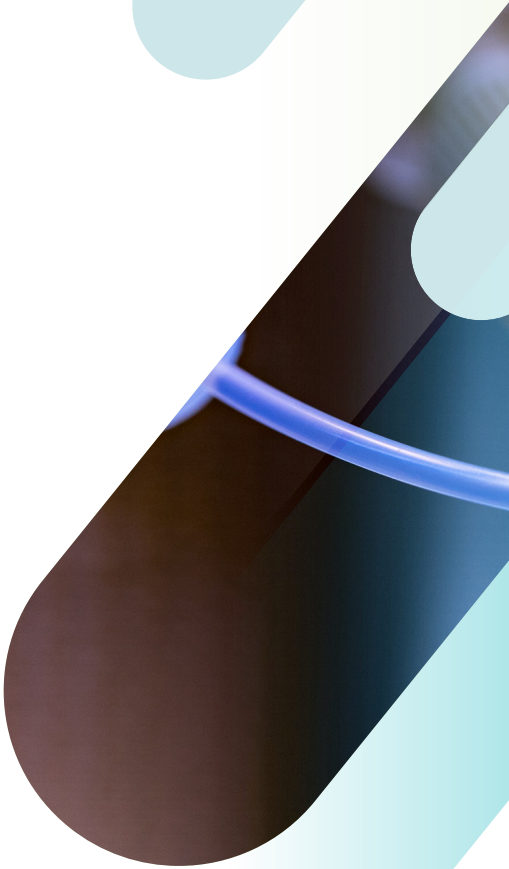
Preference will be given to the following candidates:

- Current staff in the biomanufacturing sector requiring skills expansion or upgrading;
- New or developing staff in the biomanufacturing sector;
- Identified staff or new recruits for a biomanufacturing facility; and
- Staff 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 holding a Masters or PhD.

For enquiries, please email **JPanayides@csir.co.za** or **CSagandira@csir.co.za**.

IMPORTANT DATES

- **Deadline** for submission of applications: **14 October 2026**
- **Selected candidates** will be notified by: **16 October 2026**

Applications should be submitted by completing the application form available: APPLICATION – Fill out form**.**