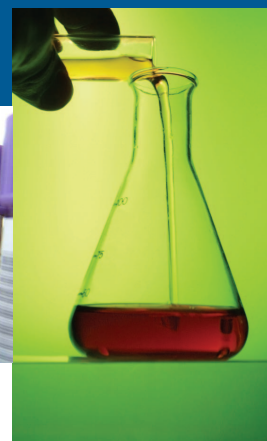




Biobanking provides reliable long term storage for your biological specimens, actively contributing to modern medical

BARC STATE OF THE ART BIOBANKING FACILITY

research allowing for future advances in research and holding the keys to unlock answers to unspoken questions.



FEATURES & CAPACITY

- Ultra-Low freezers (-70°C to -80°C) 500 000 samples, growth potential to 1 million samples
- Liquid nitrogen (-150°C to -196°C) cryo sample storage at all BARC sites – current Johannesburg capacity 256 000 with room for expansion to 1 million samples
- Cold chain management controlled temperature storage, Independent monitoring FDA approved system – Citect Scada, monitoring temperatures and alarms providing comprehensive specimen life cycle monitoring
- Ensuring constant temperature range below minimum critical threshold – uncompromising cold chain management. Equipment calibrated and certified with reliable probes
- This service has been designed for organisations who have short term and long term storage requirements, to meet increasing legislative regulations and research commitments
- Specialized transport company to collect and deliver samples
- Dedicated areas for receiving, storage, retrieval and shipment with qualified staff utilizing electronic barcoded sample tracking on LDMS/Meditech, 100% QC of all shipments in and out of repository
- Efficient specimen cataloging, archiving and IATA compliant cryogenic shipping containers, including Dry Shippers IATA trained personnel
- Green 'Chiller' systems for efficient reduction of power usage

B A R C



BARC

BACK-UP PROVISIONS

- Disaster recovery plan
- 400 KVA generator
- Dedicated electrical substation
- CO₂ back up -80°C storage
- Reservoir for Chiller system



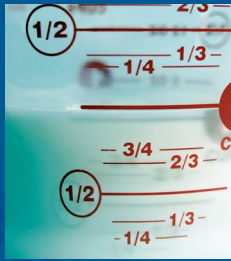
PREMIUM SAFETY AND SECURITY CONTROLS

- Video graphic recorder of the facility
- Oxygen Monitors and CO₂
- Maximum air extraction and ventilation systems
- State of the Art Safety Equipment

Global Central Laboratory

BARC SOUTH AFRICA (PTY) LTD. info@barcsa.co.za www.barcsa.co.za
 Head Office: 11 Napier Road - Richmond - Johannesburg, 2092
 Phone +27 11 242-7044 Fax +27 11 358-0748





BARC Laboratories pioneer an integrated approach to tuberculosis diagnosis in South Africa. Integrating esoteric and clinical pathology in a

BARC Tuberculosis P3 Laboratory - Charting a new course for the management of tuberculosis in South Africa

Mycobacterium Tuberculosis (TB) P3 laboratory, enabling accurate and rapid diagnosis that now significantly reduces results time.



FEATURES AND CAPACITY

Screening

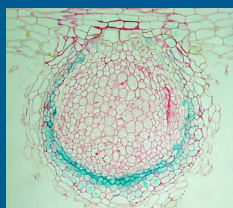
- Auramine stain - more sensitive than Ziehl Neelsen (ZN) due to ease of scanning; enables lab to handle larger volumes of work, up to 1200 samples received daily in laboratory
- Ziehl Neelsen stain used as confirmatory stain for positive Auramine samples
- Sputum assessment with ZN stain possible for BARC clinical trial samples only

Culture capacity

- 19 MGIT instruments currently, each with capacity for 960 samples for culture and sensitivity; sensitivity results may be obtained within 2 weeks of positive culture
- Average Time to positivity if culture positive
 - Smear negative - 3 weeks
 - Smear positive - 4 - 14 days



Methods of identification available



- Rapid chromatographic immunoassay for qualitative detection of MTB complex Antigen from culture
- GeneExpert: semi quantitative nested real time PCR detection of MTB complex DNA - Rapid testing, test time of 1 hr 55 mins; smear negative samples can be used.
- Gen-probe : Nucleic Acid Hybridisation Identification from culture: Gen-probe Accuprobe culture identification test for Mycobacterium Tuberculosis, Mycobacterium Avium, Mycobacterium Kansassii and Mycobacterium Intracellular.
- Hains MTBDR Plus: PCR reverse hybridisation line probe strip assay identification of Mycobacterium Species and drug resistance to INH and RIF on MTB; smear positive and culture samples can only be used.
- Lowenstein Jensen Media – BARC Clinical Trials only

TB Sensitivity on culture samples using GenProbe methodology

- First-line - Rifampicin, INH, Ethambutol, Streptomycin, PZA
- Second-line - Ofloxacin/moxifloxacin, Kanamycin, Ethionamide

TB Resistance testing on sputum samples for screening for MDR/XDR initially:

- GeneExpert: PCR - RIF (smear positive and smear negative samples)
- Hains: PCR - RIF and INH (smear positive samples only)

Resistance testing on cultures

- MGIT - DST Full first line and second line sensitivity testing if required

Quantiferon Elisa Test

- Differentiates TB infection from BCG and TB infection from nearly all non-TB Mycobacterial infections, but does not differentiate between latent and active disease
- Results within 48 hours

Specimens of choice

- Pulmonary specimens
- Tissues
- Fluid from Sterile sites
- NO Blood samples except Bone Marrow aspirates taken in TB Lytic culture bottles

For more information on the features of the laboratory contact
 BARC SA | Clinical Trials Laboratory | 011 358 0747
 Clinical Pathologist: Dr Jessica Trusler

Global Central Laboratory

BARC SOUTH AFRICA (PTY) LTD. info@barcsa.co.za www.barcsa.co.za
 Head Office: 11 Napier Road - Richmond - Johannesburg, 2092
 Phone +27 11 242-7044 Fax +27 11 358-0748