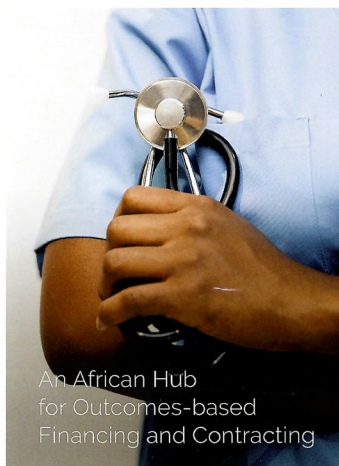


Office of AIDS and TB Research Highlights
Innovation – Collaboration – Knowledge Translation – Capacity Building

Innovation - Multi-Drug resistant TB Social Impact Bond

South Africa (SA), one of the eight countries contributing to two-thirds of global TB cases, grapples with a triple burden—TB, TB-HIV co-infection, and Drug-Resistant TB (DR TB). Roughly 21 000 persons are diagnosed with rifampicin resistant and multi-drug resistant TB annually in South Africa with rates remaining relatively stable over the last six years. Treatment outcomes are however poor with marked losses along each step of the treatment cascade. Poor outcomes are driven largely by non-biomedical factors. Innovation in funding as well as service delivery that includes both bio-medical and psycho-social support is required to optimize the fight against the scourge of MDR TB. Large funders of TB programmes strongly recommend innovative financing mechanisms as well as blended financing approaches to complement existing financing strategies to improve health outcomes.

To this end, the OATB will drive innovation by applying an innovative financing model known as a Social Impact Bond (SIB) to fund a comprehensive economic and psycho-social adherence support intervention alongside the new BPAL/L regimen to optimize treatment outcomes in an impoverished setting. The novelty of this intervention lies in the fact that it is a tailored intervention to suit the needs of the patient as well as the household using a case management approach. Significant biomedical strides have been made in the fight against MDR TB, however, a multi-sectoral, multi-disciplinary approach is what is required to optimize efforts. The OATB has positioned itself as a centre of excellence in the field of innovative financing through its *Invest for Health* platform to fund health care and will build on existing experience to ensure success of this programme.



Collaboration - Regional Prospective Observational Research on Tuberculosis (TB RePORT)

The National Institute of Allergy and Infectious Diseases (NIAID) has created the Regional Prospective Observational Research in Tuberculosis (RePORT) International program to support the establishment of regional RePORT consortia in cooperation with host countries. South Africa has been part of the consortium since its inception and the SAMRC through the OATB is currently co-funding the third iteration of RePORT, leveraging significant US funding. RePORT SA is founded on the principle of establishing patient cohorts in these settings following a common recruitment and sample collection protocol to establish a biobank of specimens that can be used for biomarker, diagnostic and related research endeavours.

These collective efforts are expected to yield a valuable set of specimens, from clinically well-characterised patients, across different geographical locales. The availability of these specimens allows for the leveraging of additional grant funds for scientific analysis, collaborative efforts and will form the basis for future biomarker research. Furthermore, sequence analysis of these specimens can be done through the MRC Genomics Centre to enable the development of a locally grown repository of valuable genetic information. Key focus areas of RePORT III are advances in transcriptomics, proteomics, new diagnostics, biomarkers, novel ways of monitoring treatment responses, post-tb lung disease and a renewed focus on paediatric TB. *These efforts have already begun to make significant inroads and are perfectly aligned with the conference theme of accelerating the progress to end TB.*



Goa, India 06 September 2023. 7th International RePORT International meeting



RePORT SA meeting, Pretoria, South Africa, 19 – 20 October 2023.

Knowledge Translation - South African TB Think Tank

Essential to accelerating the progress to end TB, is the translation of science into policy and practice. *This is one of the SAMRC's five strategic pillars.* The TB TT was established by the National Department of Health in 2014 to bring together TB researchers and the national and provincial TB Control programmes and serves as a very effective knowledge translation bridge between TB scientists and the National Department of Health. To this end, the SAMRC though the OATB has been one of the funders of the South African Tuberculosis Think Tank (TB TT) since 2021. This year the TB TT celebrated its 10-year anniversary. In this past decade, the TB TT has seen many successes which included supporting the National Strategic Plans, and producing numerous guidelines, algorithms, and guidance documents.

The TB TT aims to strengthen the government's programmatic TB response and has been instrumental to the NDOH being an early adopter of new evidence in the National TB Control Programme. In addition to the OATB being a part funder of the TB TT, the office also provides guidance and technical support to this knowledge translation vehicle in its pursuit of epidemic impact. Through its funding and involvement, this collaboration positions the SAMRC to influence the synthesis of TB research and to inform policy and practice.



Follow the SA TB TT work at: <https://tbthinktank.org>

Capacity Building - SHIFT TB

The OATB and the Grants Innovation and Product Development (GIPD) unit jointly fund the determinants of treatment outcomes with an injection free shorter regimen for multidrug- and rifampicin resistant tuberculosis (SHIFT-TB) research project. Discovery of new and repurposed drugs, particularly bedaquiline and linezolid, has enabled progressive shortening of treatment for DR-TB. South Africa has pioneered use of shorter, all-oral regimens, generating evidence and influencing global policy through programmatic implementation. A major outcome from SAMRC investment in the SHIFT-TB project was the establishment of a highly productive clinical research site at Nkqubela Chest Hospital (NCH). NCH is in the township of Mdantsane which is on the outskirts of Buffalo City in the Eastern Cape province. The area is impoverished and largely underserved. The study team has built strong partnerships with the hospital leadership and local health authorities whose support was key to the establishment of permanent physical research infrastructure at the hospital. This initiative is a key example of capacity building in areas where it is most needed.