

# SOUTH AFRICAN MEDICAL RESEARCH COUNCIL

Grants, Innovation and Product Development (GIPD)

NIOH Presentation  
Thursday, 19 November 2020

An organisation... "*advancing life*"



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# EVOLUTION OF MRC GRANT FUNDING

Prior to revitalization in 2012

- SIR grant program
- (Research Capacity Development Awards)
- (Extra-mural Unit Funding)
- Very little innovation funding

# EVOLUTION OF MRC GRANT FUNDING

2012-2020 – 220 grants

- SIR grant program
- FLAGSHIP grant program
- SAMRC/NIH grant program
- SHIP grant program
- SA Grand Challenges
- SAMRC – Sweden grant program
- SAMRC – UK grant program (Newton Fund)
- SAMRC – India grant program
- SAMRC – Sudan grant program
- SAMRC – BGMF grant program
- SAMRC – Anglo American Platinum grant program
- SAMRC – CIHR grant program
- Big move towards standardized protocols

# OVERVIEW OF GIPD: CURRENT GRANT PROGRAMS

- **GIPD co-funding with International partners:**
  - Newton Fund (UK MRC, UK Government),
    - Non Communicable diseases (with GSK)
    - TB Implementation Science
    - Anti- microbial resistance
    - Precision Medicine (co-funded with DST)
    - Mental Health
  - Gates Foundation:
    - **Grand Challenges SA**
    - Global Health Innovation Accelerator (GHIA)
  - National Institutes of Health
    - HIV, TB and HIV comorbidities
    - **TB REPORT**
  - Sweden FORTE
  - SA-India (DST Funded)
  - **CIHR – HeLTI**
  - **NEISHIE**
  - Large COVID portfolio – >30 projects

# SOUTH AFRICAN POPULATION RESEARCH INFRASTRUCTURE NETWORK





## MOU SIGNING BETWEEN SAMRC & BGI



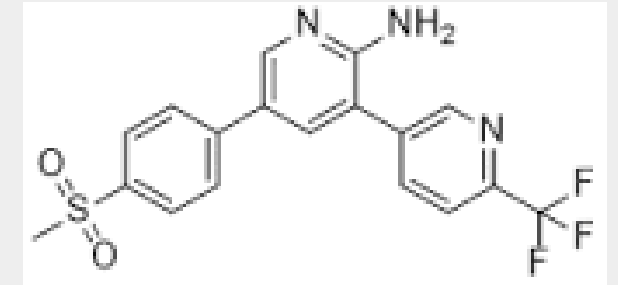
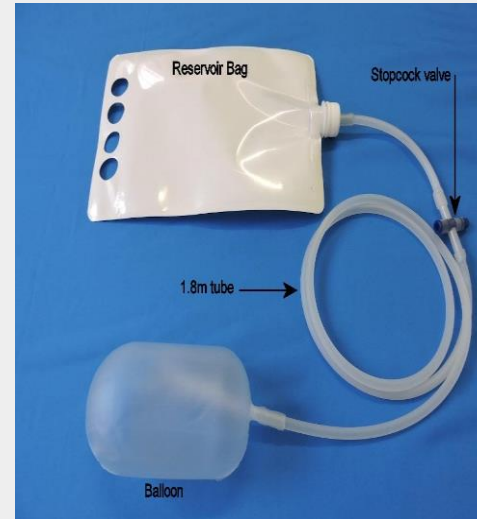
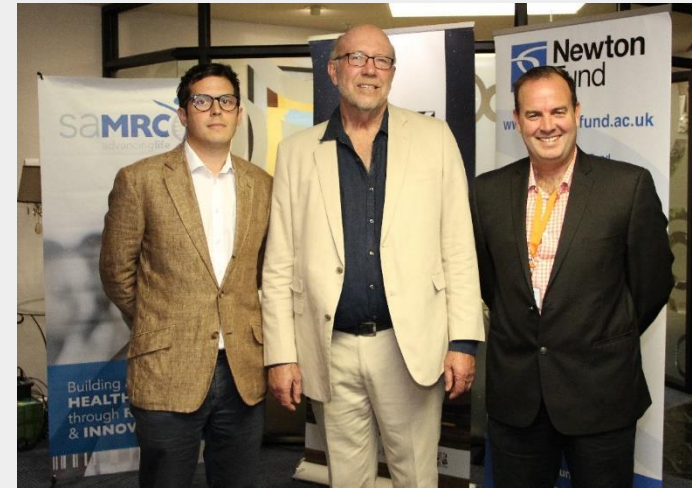
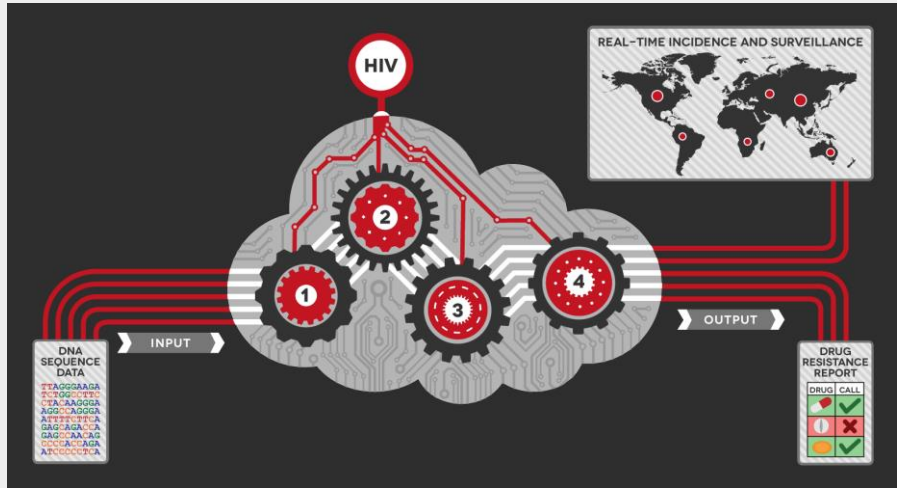
25 APRIL 2017 | SAMRC PRETORIA SOUTH AFRICA

The SAMRC and BGI (Beijing Genomics Institute) have signed an MOU which will see the two organisations enter into a partnership to establish a Whole Genomic Sequencing facility.

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**DDU** Drug Discovery Unit  
College of Life Sciences  
University of Dundee



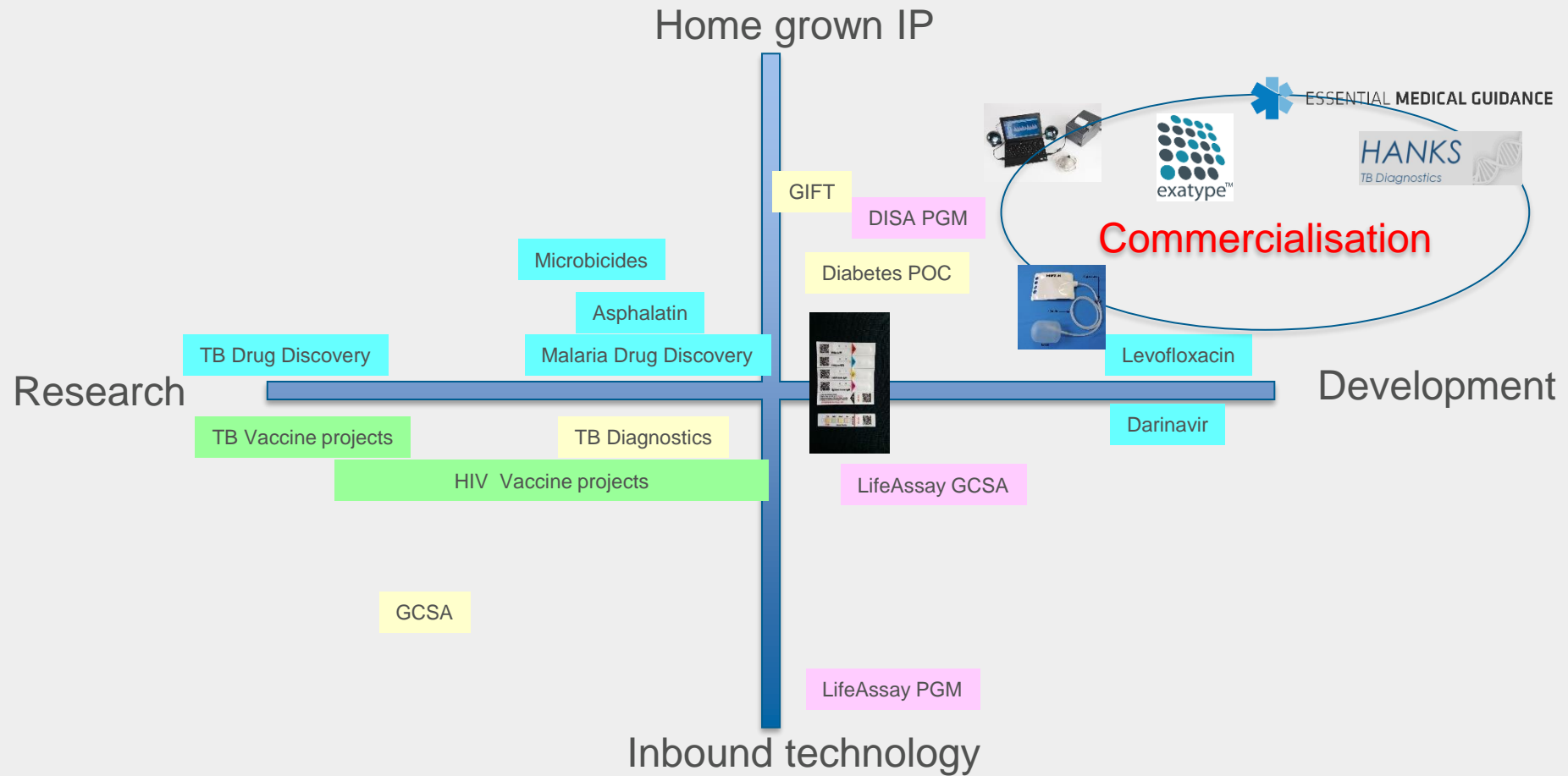
# HOW WE SELECT FUNDING TOPICS

**Key Message:** This is aligned with the disease burden of SA

- **SHIP: (DST, DOH, DTI, SAMED, SANAC)**
  - SHIP SteerCo (See SHIP section)
- **FLAGSHIP Grants: (MRC)**
  - Based on quality proposals aligned with national disease burden
- **Newton Fund (MRC, UKMRC, GSK)**
  - NCD: Based on quality proposals aligned with national disease burden, GSK and UKMRC
  - TB: Based on TB Think Tank priority areas – DOH, MRC, BMGF
  - AMR
  - Mental Health – parliament/Board
- **Grand Challenges South Africa (MRC, BMGF)**
  - MRC aligned with Grand Challenges “Saving Lives at Birth” call



# SHIP INNOVATION PROJECTS



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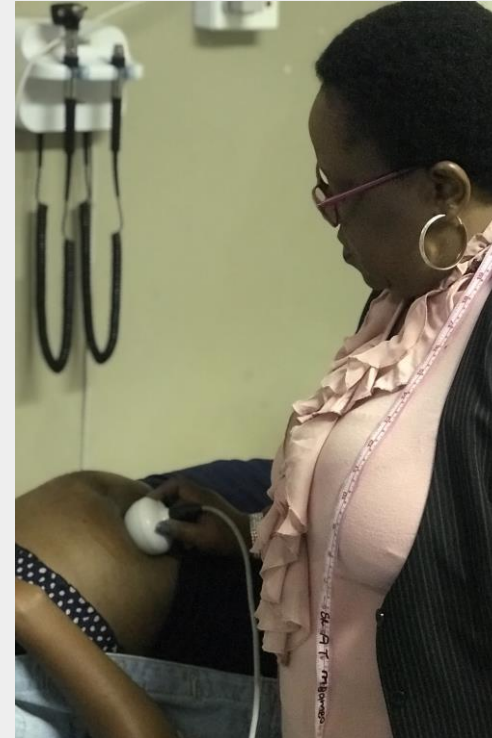
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# PUBLIC HEALTH UMBIFLOW

- **Abnormal Umbiflow** reading observed in **10% low-risk** pregnancy population (9 province study)
- **Absent end-diastolic flow in low-risk pregnancy population is 8~10 x higher** than in high-income countries
- Umbiflow screening followed by appropriate interventions resulted in **40% reduction in stillbirth rate** in study group
- ELMA Philanthropies and Clinton Health Access Initiative have provided **funding to support the implementation study for national roll-out**



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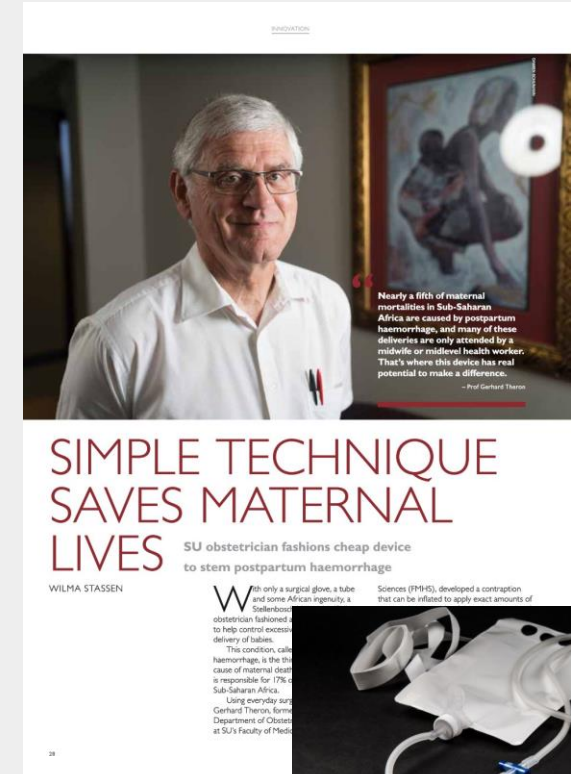
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# UTERINE BALLOON TAMPONADE

- Sinapi UBT demonstrated to be feasible for the management of **postpartum haemorrhage** in a rural regional hospital without specialist supervision (St. Elizabeth's Hospital, Lusikisiki)
- Case series was conducted on 10 patients by medical officers without specialist supervision.
- The overall **success rate was 90%** (9/10). No immediate complications resulted from the use of the Ellavi UBT. All patients included in the case series arrived at the referral hospital and had a good outcome
- UBT has received a CE mark for the UBT
  - adopted by 31 South African hospitals (in 5 provinces) in 2019
  - received regulatory approvals in Kenya and Ghana in January 2020
  - Already on the market in Botswana, Lesotho, Swaziland, Kuwait, Puerto Rico, and Brazil
- An RCT that includes the Ellavi UBT is planned by WHO in Vietnam in 2021



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## SELECTED PROJECT HIGHLIGHTS

- Enrolment and infusion of the first participant into the **CAPRISA 012B first-in-human phase 1 trial of CAP256V2LS in July 2020**
- New large-scale **image-based analytical method for mycobacterial functional genomics** developed and contributed to the **TB Drug Accelerator** (3<sup>rd</sup> assay developed through SHIP funding)
- **Content management system (CMS)** developed for **EML App** to allow NDOH to manage its own content updates.
  - Same CMS being applied to TB and HIV clinical guide Apps

## PROJECT FUNDS LEVERAGED

- Chibale (TB and malaria drug discovery): **Gates Foundation**
- Chibale (malaria drug discovery): **MMV**
- Chibale/Masamba: **NIH**
- Warner: **NIH & Gates Foundation**
- Pattinson: **CHAI and Elma Philanthropies**



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# HOW DO WE MEASURE PROGRESS/SUCCESS?

- Practice
  - Changing practise
    - TB Active case finding – Newton
    - Transmission – MRC/Gates
    - Lung challenge projects – MRC Gates
    - Breast Cancer – SUN/TIA.
  - Lives saved
    - UBT with PATH
    - Doppler with CSIR
    - TB Newton
  - Prescribing
    - Low dose Darinivir (co-funded with US funder)
    - ADVAANCE study
    - TB CHAMP – paediatric levofloxacin (Co-funded with UKMRC)
  - Manufacturing
    - CBT



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# KEY LEARNINGS

- Don't send 1 proposal! Success rates are 10-25%
- Include data! – reviewers need to see this. They review under confidentiality
- Collaborations trump single institution applications
- Capacity development and transformation are very important
- Evolve with the times and research priorities.



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# FUNDING OPPORTUNITIES

- Keep checking out SAMRC website
- Self Initiated research calls
- SHIP
- Newton
- SAMRC & private sector



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