Article:

DOI: 10.1016/S2214-109X(18)30030-5
Impact Factor: 17.686

Summary:

According WHO estimates, cardiovascular diseases are the second most common cause of death in Africa. Of the prevailing cardiovascular diseases in Africa, stroke was the top killer and the fourth leading cause of all deaths in 2015. Globally, the highest age-standardised incidence of stroke is in Africa. Hitherto, however, the epidemiology of stroke in Africa has not been characterised optimally, leading to ineffective prevention and control.
Article:


Impact Factor: 17.686

Summary:
It is well established that Africa is undergoing rapid transitions resulting in a triple burden of malnutrition, infectious diseases, and Non-Communicable Diseases (NCDs). That health systems are unlikely to be able to cope with this burden is also widely noted. What is less often discussed outside academic circles is the degree to which infectious diseases and malnutrition in Africa are exacerbating the burden of NCDs, and the implications of this exacerbation for individuals and populations.
Summary:

Background: Maternal postnatal depression occurs following 10–15% of births and is associated with a range of negative child outcomes. Risks to children are particularly increased when postnatal depression is persistent. We aimed to examine whether a parenting Video-Feedback Therapy (VFT) intervention versus a control treatment of Progressive Muscle Relaxation (PMR), both added to Cognitive Behavioural Therapy (CBT) for persistent postnatal depression, would lead to improved child outcomes at age 2 years.

Methods: In this two-arm, parallel-design, individually randomised controlled trial, we recruited a community sample of women aged 18 years or older living within 50 miles of Oxford, UK, between 4·5 and 9·0 months post partum. All participants met diagnostic criteria for current major depressive disorder that had persisted for at least 3 months and had infants at 35 or more weeks of gestation, with a birthweight of 2000 g or greater, and without serious neonatal complications. Through a centralised service, women were randomly assigned by use of a minimisation algorithm, to receive either VFT or PMR, balanced for child sex, temperament, age, socioeconomic status, and severity of depression. Both groups also received CBT for depression. Primary outcomes were child cognitive development, language development, behaviour problems, and attachment security at age 2 years. There were 11 home-based treatment sessions before child age 1 year, followed by two booster sessions in the second year. Assessors were masked to treatment group allocation. All analyses were done according to the intention-to-treat principle. This trial is registered with the ISRCTN registry, number ISRCTN07336477.

Findings: Between March 18, 2011, and Dec 9, 2013, we randomly assigned 144 women, 72 to each group. Primary outcome data were available for 62–64 (86–89%) VFT and 67–68 (93–94%) PMR participants. There were no group differences in child outcome (cognitive development, adjusted difference −1·01 [95% CI −5·11 to 3·09], p=0·63; language development, 1·33 [−4·16 to 6·82], p=0·63; behaviour problems, −1·77 [−4·39 to 0·85], p=0·19; attachment security, 0·02 [−0·06 to 0·10], p=0·58), with both groups achieving scores similar to non-clinical norms on all outcomes. There were six serious adverse events: five in the VFT group (in two participants) and one in the PMR group. None was treatment-related.

Interpretation: The effect of persistent postnatal depression on children is a major public health issue. For both treatment groups there was sustained remission from depression, and child development outcomes were in the normal range. The precise mechanisms accounting for the observed positive child outcomes cannot be ascertained from this study.
Summary
Claiming close to two million lives each year, tuberculosis is now the leading cause of death from an infectious disease. The rise in number of Mycobacterium tuberculosis (Mtb) strains resistant to existing TB drugs has underscored the urgent need to develop new antimycobacterials with novel mechanisms of action. To meet this need, a drug pipeline has been established that is populated with new and repurposed drugs. Recent advances in identifying molecules with inhibitory activity against Mtb under conditions modelled on those encountered during infection, and in elucidating their mechanisms of action, have primed the pipeline with promising drug/target couples, hit compounds and new targets. In this review, we highlight recent advances and emerging areas of opportunity in this field.
Article:
DOI: 10.1093/infdis/jiy084
Impact Factor: 6.273

Summary
Evidence to-date points to a detrimental role of the type I IFNs during tuberculosis. The mechanisms underpinning the IFNαβ-mediated exacerbation of the disease is unclear. The 2′-5′-oligoadenylate synthetases (OAS), namely OAS1, OAS2 and OAS3 are part of the interferon-induced genes which until now have been synonymous with an anti-viral function. Blood transcriptome profiling has continuously observed their upregulation in a number of gene expression signatures which discriminate active TB from latent TB infection, however the role of the OASs and the effect that their expression has on the pathogenesis and persistence of TB is unknown. Evidence suggests that the OASs exhibit other cellular functions which include the induction of apoptosis, enhancement of IFNαβ signalling, immune cell receptor modulation and autophagy. We propose that i) during the late stages of disease, sustained RNaseL expression through OAS activation enhances type I IFN signalling and, ii) that they may exhibit immune-modulatory capabilities.
1.  **INTRAMURAL RESEARCH UNITS**

**Alcohol, Tobacco and Other Drug**

   **Impact Factor:** 3.222

   **Impact Factor:** 2.822

   **Impact Factor:** 2.822

   **Impact Factor:** 2.341

   **Impact Factor:** 2.369

   **Impact Factor:** 1.969

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**Biomedical Research and Innovation Platform**

   **Impact Factor:** 2.186

   **Impact Factor:** 2.006

   **Impact Factor:** None
Biostatistics
1. Mayaphi SH, Martin DJ, Olorunju SAS, Williams BG, Quinn TC, Stoltz AC. High risk exposure to HIV among sexually active individuals who tested negative on rapid HIV Tests in the Tshwane District of South Africa-The importance of behavioural prevention measures. PLoS ONE. 2018 Feb 2;13(2):e0192357. DOI: 10.1371/journal.pone.0192357
   Impact Factor: 2.806

Burden of Disease
   Impact Factor: 1.731

Centre for Tuberculosis
   Impact Factor: 1.731

   Impact Factor: 4.259

   Impact Factor: 6.273

   Impact Factor: 6.273

   Impact Factor: 4.302

   Impact Factor: 2.415
Environment and Health

   Impact Factor: 4.208

2. du Preez DJ, du Plessis JL, Wright CY. Assessing a portable, real-time display handheld meter with UV-A and UV-B sensors for potential application in personal sun exposure studies. Skin Research and Technology. 2018 Feb 23. DOI: 10.1111/srt.12462
   Impact Factor: 1.662

   Impact Factor: 1.731

   Impact Factor: 4.900

Gender and Health

   Impact Factor: 2.806

   Impact Factor: None

   Impact Factor: 2.797

Health Systems

   Impact Factor: 6.264

   Impact Factor: 6.269
   DOI: 10.1177/0081246318757932
   Impact Factor: 0.619

Non-Communicable Disease
   DOI: 10.1016/S2214-109X(18)30030-5
   Impact Factor: 17.686

   DOI: 10.1080/19320248.2018.1434104
   Impact Factor: None

Office of AIDS
   DOI: 10.1016/j.antiviral.2018.02.001
   Impact Factor: 4.271

   DOI: 10.1186/s12978-018-0455-1
   Impact Factor: 2.209

South African Cochrane Centre
   DOI: 10.1002/14651858.CD004148.pub4
   Impact Factor: 6.264

   DOI: 10.1002/14651858.CD012960
   Impact Factor: 6.264

   DOI: 10.1093/nutrit/nux074
   Impact Factor: 5.291

   DOI: 10.1186/s13104-018-3210-3
   Impact Factor: None

   DOI: 10.1002/14651858.CD011595.pub2
   Impact Factor: 6.264
Violence, Injury and Peace

   DOI: 10.1080/13668803.2018.1433636
   Impact Factor: None

   DOI: 10.1186/s12889-018-5150-1
   Impact Factor: 2.265
2. EXTRAMURAL RESEARCH UNITS

Bioinformatics Capacity Development
   DOI: 10.1093/ve/vey003
   Impact Factor: None

Child and Adolescent Lung Health
   DOI:10.7196/SAMJ. 2018.v108i2.13088
   Impact Factor: 1.731

   DOI: 10.1097/inf.0000000000001960
   Impact Factor: 2.486

3. Zar HJ. Hypoxia and signs of increased work of breathing are most strongly associated with radiographic pneumonia in children. BMJ Evidence Based Medicine. 2018 Feb 19.
   DOI: 10.1136/bmjebm-2017-110874
   Impact Factor: None

Developmental Pathways for Health
   DOI: 10.2147/CMAR.S148317
   Impact Factor: 3.851

   DOI: 10.1371/journal.pone.0192071.
   Impact Factor: 2.806

   DOI: 10.1017/S1368980018000125
   Impact Factor: 2.326

   DOI: 10.1007/s00198-018-4422-z
   Impact Factor: 3.591
Diarrhoeal Pathogens
   Impact Factor: 1.431

Drug Discovery and Development
   Impact Factor: 4.519

Gynaecological Cancer
   Impact Factor: 2.343

Herbal Drugs
   Impact Factor: 1.418

HIV/TB Pathogenesis and Treatment
   Impact Factor: 2.873

Hypertension and Cardiovascular Disease
   Impact Factor: 17.686

Immunology of Infectious Disease
   Impact Factor: 4.259
   **Impact Factor: None**

   **Impact Factor: 4.259**

   **Impact Factor: 4.856**

**Maternal and Infant Health Care Strategies**

   **Impact Factor: 1.731**

**Molecular Mycobacteriology**

   **Impact Factor: 6.635**

**Respiratory and Meningeal Pathogens**

   **Impact Factor: 2.486**

   **Impact Factor: 3.235**

**Risk and Resilience in Mental Disorders**

   **Impact Factor: 3.222**
Impact Factor: 1.731

Impact Factor: 6.442

Impact Factor: None

Rural Public Health and Health Transition

Impact Factor: 17.686

Impact Factor: 11.588

Impact Factor: 6.296

Impact Factor: 2.541
3. **GRANT FUNDED RESEARCH**

   **Impact Factor:** 2.454

   DOI: 10.1186/s13643-018-0703-z
   **Impact Factor:** None

   DOI: 10.1098/rsbl.2017.0783
   **Impact Factor:** 3.089

   DOI: 10.1002/ptr.6047
   **Impact Factor:** 3.092

   DOI: 10.1155/2018/5101656
   **Impact Factor:** 1.740

   DOI: 10.3389/fimmu.2018.00225
   **Impact Factor:** 6.429

   DOI: 10.1371/journal.pone.0192060
   **Impact Factor:** 2.806

   DOI: 10.1128/jcm.01914-17
   **Impact Factor:** 3.712

   DOI: 10.1146/annualrev-immunol-042617-053420
   **Impact Factor:** 28.396
   Impact Factor: 3.051

   Impact Factor: 0.619

   Impact Factor: 47.831

   Impact Factor: 2.293

   Impact Factor: 2.466

   Impact Factor: None

   Impact Factor: 3.769

   Impact Factor: 5.964
4. **RESEARCH CENTRES**

**Soweto Matlosana SAMRC Collaborating Centre for HIV/AIDS and TB**


   **Impact Factor: 16.761**

**UP Centre for Sustainable Malaria Control**


   DOI: 10.1016/j.envint.2018.01.016

   **Impact Factor: 7.088**

5. **CLOSED RESEARCH UNITS**

**Exercise Science and Sports Medicine**


   DOI: 10.3390/ijerph15020351

   **Impact Factor: 2.101**
6. RESEARCH UNITS WITH NO QUALIFYING PUBLICATIONS

Intramural

- HIV Prevention
- Office of Cancer
- Office of Malaria
- Office of Tuberculosis
- Primate

Extramural

- Antiviral Gene Therapy
- Common Epithelial Cancer
- Health Services to Systems
- Human Genetics
- Microbial Water Quality Monitoring
- Prospective Gastrointestinal Cancer
- Receptor Biology
- Stem Cell Research and Therapy

Research Centres

- Advancing Care and Treatment (ACT) For TB/HIV
- Centre for Basic and Translational Human TB Research
- Centre for Tuberculosis Biomarker-Targeted Intervention
- Clinical and Community HIV-Tuberculosis Research Collaborating Centre
- TB Free through Research and Innovation
- Tuberculosis Collaborating Centre for Child Health (TB-CHILD)
- Tygerberg SAMRC Collaborating centre for HIV Laboratory Research
- UCT Collaborating Centre for Optimising Antimalarial Therapy in South Africa
- Wits Clinical HIV/TB Research Unit, WITS Health Consortium
- Wits Collaborating Centre for Multi-Disciplinary Research on Malaria
- Wits RHI Collaborating Centre for HIV/AIDS
# 7. GRANTS AWARDED

<table>
<thead>
<tr>
<th>SAMRC Unit</th>
<th>Funder</th>
<th>Main Funder</th>
<th>Project Title/Description</th>
<th>Contract Value</th>
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<tr>
<td></td>
<td></td>
<td>CDC</td>
<td>Strengthening the Evidence Base and Capacity for Implementing HIV Prevention (CEBHA+)</td>
<td>Foreign: 49,331</td>
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<tr>
<td>HSRU</td>
<td>WHO</td>
<td>WHO</td>
<td>To support the work of the Department of Maternal, Newborn, Child and Adolescent Health (MCA) and to conduct an evaluation of dissemination methods for updated WHO guidelines on HIV and infant feeding.</td>
<td>Rand: 1,923,000</td>
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<td></td>
<td>World Bank</td>
<td>World Bank</td>
<td>Strengthening resilience in 4 sub-districts in the Western Cape. Contract no. 7185081</td>
<td>Rand: 580,316</td>
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<p>|            |                    |             |                                                                                         | Foreign: 49,290 |</p>
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<tr>
<td></td>
<td>Department of Health and Human Services</td>
<td>NIH</td>
<td>South African MRC HIV Prevention Trials Unit Grant Nr 5 UMI A1069422-12</td>
<td>2,128,390 Rand</td>
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<td></td>
<td>EDCTP</td>
<td>EDCTP</td>
<td>A combination efficacy study in Africa of two DNA-MVA or DNA – Env protein HIV-1 vaccine regiments with pre-exposure prophylaxis (Prep) - PrEPVacc</td>
<td>28,616,496 Rand</td>
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<td></td>
<td>Fred Hutchinson Cancer Research</td>
<td>Bill &amp; Melinda Gates Foundation</td>
<td>HIV Vaccine Trials Network P5 Protocol Funding - Isipingo</td>
<td>605,523 Rand</td>
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<td>National Institute of Health</td>
<td>HVTN703 Protocol Funding – Botha’s Hill Sub-award # 925293</td>
<td>5,396,101 Rand</td>
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<td></td>
<td>Magee Women’s Research Institute</td>
<td>NIH</td>
<td>Leadership and Operations Center: Microbicides Trials Network Protocol Funding Sub-award 9538</td>
<td>18,233,101 Rand</td>
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