



# CELEBRATES SCIENCE



# Newsletter

MAY 2016

# TOP 5 ARTICLES

**Director: Prof Carl Lombard**



## Article:

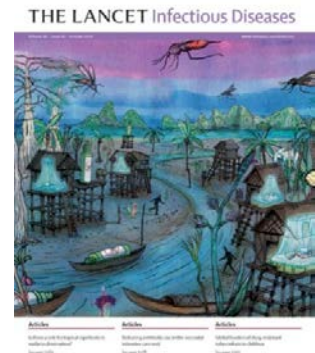
**Lombard C, Cousens S, Tylleskär T, Van de Perre P, Nagot N. Trial size, HIV pre-exposure prophylaxis, and breastfeeding - Authors' reply. Lancet. 2016 May 21; 387(10033): 2091. [Letter]**  
DOI: 10.1016/S0140-6736(16)30540-2  
**Impact Factor: 44.002**

## Summary:

We thank Sheila Bird for her interest in our trial.<sup>1</sup> The effect sizes used for the sample size calculation for the trial<sup>1,2</sup> stemmed from clinical information available before August, 2011, with an assumed range for mother-to-child transmission of 3% to 5% for the lamivudine group. The expected transmission rate of 1·0% to 2·5% in the lopinavir–ritonavir group was deemed to be of clinical significance. The observed transmission rate in the lamivudine group was less than half that expected,<sup>3</sup> while the rate in the lopinavir–ritonavir group was within the expected range.

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**Director: Prof Shabir Madhi**



### Article:

**Kwatra G**, Cunnington MC, Merrall E, **Adrian PV**, Ip M, **Klugman KP**, Tam WH, **Madhi SA**. Prevalence of maternal colonisation with group B streptococcus: A systematic review and meta-analysis. *Lancet Infectious Diseases*. 2016 May 25. [Original]

DOI: 10.1016/S1473-3099(16)30055-X

**Impact Factor: 21.372**

### Summary

**Background:** The most important risk factor for early-onset (babies younger than 7 days) invasive group B streptococcal disease is rectovaginal colonisation of the mother at delivery. We aimed to assess whether differences in colonisation drive regional differences in the incidence of early-onset invasive disease.

**Methods:** We did a systematic review of maternal group B streptococcus colonisation studies by searching MEDLINE, Embase, Pascal Biomed, WHOLIS, and African Index Medicus databases for studies published between January, 1997, and March 31, 2015, that reported the prevalence of group B streptococcus colonisation in pregnant women. We also reviewed reference lists of selected studies and contacted experts to identify additional studies. Prospective studies in which swabs were collected from pregnant women according to US Centers for Disease Control and Prevention guidelines that used selective culture methods were included in the analyses. We calculated mean prevalence estimates (with 95% CIs) of maternal colonisation across studies, by WHO region. We assessed heterogeneity using the  $I^2$  statistic and the Cochran Q test.

**Findings:** 221 full-text articles were assessed, of which 78 studies that included 73 791 pregnant women across 37 countries met prespecified inclusion criteria. The estimated mean prevalence of rectovaginal group B streptococcus colonisation was 17.9% (95% CI 16.2–19.7) overall and was highest in Africa (22.4, 18.1–26.7) followed by the Americas (19.7, 16.7–22.7) and Europe (19.0, 16.1–22.0). Studies from southeast Asia had the lowest estimated mean prevalence (11.1%, 95% CI 6.8–15.3). Significant heterogeneity was noted across and within regions (all  $p \leq 0.005$ ). Differences in the timing of specimen collection in pregnancy, selective culture methods, and study sample size did not explain the heterogeneity.

**Interpretation:** The country and regional heterogeneity in maternal group B streptococcus colonisation is unlikely to completely explain geographical variation in early-onset invasive disease incidence. The contribution of sociodemographic, clinical risk factor, and population differences in natural immunity need further investigation to understand these regional differences in group B streptococcus maternal colonisation and early-onset disease.

**Director: Prof Shabir Madhi**



**Article:**

**Groome MJ, Zell ER, Solomon F, Nzenze S, Parashar UD, Izu A, Madhi SA.** Temporal association of rotavirus vaccine introduction and reduction in all-cause childhood diarrheal hospitalizations in South Africa. *Clinical Infectious Diseases*. 2016 May 1; 62 Suppl 2: S188-95. [Original]

DOI: 10.1093/cid/civ1204

**Impact Factor: 8.736**

**Summary**

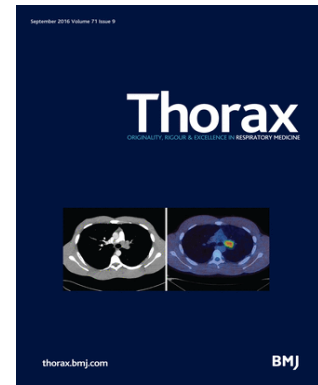
**Background:** The public health impact of rotavirus vaccination in African settings with a high human immunodeficiency virus (HIV) infection prevalence is yet to be established. We evaluated trends in all-cause diarrheal hospitalizations in Soweto, Johannesburg, before and after the introduction of rotavirus vaccine into South Africa's national immunization program in August 2009.

**Methods:** Hospitalizations in children <5 years of age with a diagnosis of diarrhea, defined by International Classification of Diseases, Tenth Revision codes A00-A05, A06.0-A06.3, A06.9, A07.0-A07.2, A07.9, and A08-A09, were identified at the Chris Hani Baragwanath Academic Hospital from 1 January 2006 to 31 December 2014. The median annual prevaccine (2006-2008) hospitalization incidence was compared to that of the vaccine era (2010-2014), and stratified by age group and HIV infection status.

**Results:** Incidence reductions (per 1000 population) were greatest in children aged <12 months: 54.4 in the prevaccine era vs 30.0, 23.6, 20.0, 18.8, and 18.9 in the postvaccine years 2010-2014, respectively (a 44.9%-65.4% reduction). Lower incidence reductions (39.8%-49.4%) were observed among children aged 12-24 months from the second year post-vaccine introduction onward. Reductions were observed in both HIV-infected and HIV-uninfected children. There was a change in the seasonal pattern of diarrheal hospitalizations post-vaccine introduction, with flattening of the autumn-winter peaks seen in the prevaccine years.

**Conclusions:** An accelerated and sustained decline in all-cause diarrheal hospitalizations, temporally associated with rotavirus vaccine introduction, was observed in children <2 years of age. However, the impact of other interventions such as improved sanitation and changes in HIV management cannot be discounted.

**Director: Prof Paul van Helden**



### Article:

**Chegou NN**, Sutherland JS, **Malherbe S**, Crampin AC, Corstjens PL, Geluk A, Mayanja-Kizza H, **Loxton AG**, **van der Spuy G**, **Stanley K**, **Kotzé LA**, van der Vyver M, Rosenkrands I, Kidd M, **van Helden PD**, Dockrell HM, Ottenhoff TH, Kaufmann SH, **Walzl G**; AE-TBC consortium. Diagnostic performance of a seven-marker serum protein biosignature for the diagnosis of active TB disease in African primary healthcare clinic attendees with signs and symptoms suggestive of TB. *Thorax*. 2016 May 4. [Original]  
DOI: 10.1136/thoraxjnl-2015-207999

**Impact Factor: 8.121**

### Summary

**Background:** User-friendly, rapid, inexpensive yet accurate TB diagnostic tools are urgently needed at points of care in resource-limited settings. We investigated host biomarkers detected in serum samples obtained from adults with signs and symptoms suggestive of TB at primary healthcare clinics in five African countries (Malawi, Namibia, South Africa, The Gambia and Uganda), for the diagnosis of TB disease.

**Methods:** We prospectively enrolled individuals presenting with symptoms warranting investigation for pulmonary TB, prior to assessment for TB disease. We evaluated 22 host protein biomarkers in stored serum samples using a multiplex cytokine platform. Using a pre-established diagnostic algorithm comprising of laboratory, clinical and radiological findings, participants were classified as either definite TB, probable TB, questionable TB status or non-pulmonary TB.

**Results:** Of the 716 participants enrolled, 185 were definite and 29 were probable TB cases, 6 had questionable TB disease status, whereas 487 had no evidence of TB. A seven-marker biosignature of C reactive protein, transthyretin, IFN- $\gamma$ , complement factor H, apolipoprotein-A1, inducible protein 10 and serum amyloid A identified on a training sample set (n=491), diagnosed TB disease in the test set (n=210) with sensitivity of 93.8% (95% CI 84.0% to 98.0%), specificity of 73.3% (95% CI 65.2% to 80.1%), and positive and negative predictive values of 60.6% (95% CI 50.3% to 70.1%) and 96.4% (95% CI 90.5% to 98.8%), respectively, regardless of HIV infection status or study site.

**Conclusions:** We have identified a seven-marker host serum protein biosignature for the diagnosis of TB disease irrespective of HIV infection status or ethnicity in Africa. These results hold promise for the development of a field-friendly point-of-care screening test for pulmonary TB.



**Director: Dr Johan Louw**



### Article:

**Huisamen B**, Hafver TL, Lumkwana D, Lochner A. The impact of chronic glycogen synthase Kinase-3 inhibition on remodeling of normal and pre-diabetic rat hearts. *Cardiovascular Drugs and Therapy*. 2016 May 16. [Original]

DOI: 10.1007/s10557-016-6665-2

**Impact Factor: 3.189**

### Summary

**Purpose:** There is an ongoing search for new drugs and drug targets to treat diseases like Alzheimer's disease, cancer and type 2 diabetes (T2D). Both obesity and T2D are characterized by the development of a cardiomyopathy associated with increased hypertension and compensatory left ventricular hypertrophy. Small, specific glycogen synthase kinase-3 (GSK-3) inhibitors were developed to replace lithium chloride for use in psychiatric disorders. In addition, they were advocated as treatment for T2D since GSK-3 inhibition improves blood glucose handling. However, GSK-3 is a regulator of hypertrophic signalling in the heart via phosphorylation of NFATc3 and  $\beta$ -catenin respectively. In view of this, we hypothesized that chronic inhibition of GSK-3 will induce myocardial hypertrophy or exacerbate existing hypertrophy.

**Methods:** Rats with obesity-induced prediabetes were treated orally with GSK-3 inhibitor (CHIR118637 (CT20026)), 30 mg/kg/day for the last 8 weeks of a 20-week diet high in sugar content vs a control diet. Biometric and biochemical parameters were measured, echocardiography performed and localization and co-localization of NFATc3 and GATA4 determined in cardiomyocytes.

**Results:** Obesity initiated myocardial hypertrophy, evidenced by increased ventricular mass ( $1.158 \pm 0.029$  vs  $0.983 \pm 0.03$  g) and enlarged cardiomyocytes ( $18.86 \pm 2.25$  vs  $14.92 \pm 0.50 \mu\text{m}^2$ ) in association with increased end-diastolic diameter (EDD =  $8.48 \pm 0.11$  vs  $8.15 \pm 0.10$  mm). GSK-3 inhibition (i) increased ventricular mass only in controls ( $1.075 \pm 0.022$  g) and (ii) EDD in both groups (controls:  $8.63 \pm 0.07$ ; obese:  $8.72 \pm 0.15$  mm) (iii) localized NFATc3 and GATA4 perinuclearly.

**Conclusion:** Indications of onset of myocardial hypertrophy in both control and obese rats treated with a GSK-3 inhibitor were found. It remains speculation whether these changes were adaptive or maladaptive.

## 1. INTRAMURAL RESEARCH UNITS

### Alcohol, Tobacco and Other Drug

1. Cleary M, **Siegfried N**, Escott P, Walter G. Super research or super-researched?: When enough is enough.... Issues in Mental Health Nursing. 2016 May 12; 37(5): 380-2. [Letter]  
DOI: 10.3109/01612840.2016.1163977  
**Impact Factor: 0.990**
2. **Morojele NK**, Ramsoomar L. Addressing adolescent alcohol use in South Africa. South African Medical Journal. 2016 May 14.  
DOI: 10.7196/SAMJ. 2016.v106i6.10944  
**Impact Factor: 1.500**
3. May PA, Hasken JM, Blankenship J, Marais AS, Joubert B, Cloete M, de Vries MM, Barnard R, Botha I, Roux S, Doms C, Gossage JP, Kalberg WO, Buckley D, Robinson LK, Adnams CM, Manning MA, **Parry CD**, Hoyme HE, Tabachnick B, Seedat S. Breastfeeding and maternal alcohol use: Prevalence and effects on child outcomes and fetal alcohol spectrum disorders. Reproductive Toxicology. 2016 May 10. [Original]  
DOI: 10.1016/j.reprotox.2016.05.002  
**Impact Factor: 2.850**
4. **Parry CD**, **Kekwaletswe C**, Shuper PA, **Nkosi S**, **Myers BJ**, **Morojele NK**. Heavy alcohol use in patients on highly active antiretroviral therapy: What responses are needed? South African Medical Journal. 2016 May 8. [Original]  
DOI: 10.7196/SAMJ. 2016.v106i6.10639  
**Impact Factor: 1.500**

### Biomedical Research and Innovation Platform

1. **Huisamen B**, Hafver TL, Lumkwana D, Lochner A. The impact of chronic glycogen synthase Kinase-3 inhibition on remodeling of normal and pre-diabetic rat hearts. Cardiovascular Drugs and Therapy. 2016 May 16. [Original]  
DOI: 10.1007/s10557-016-6665-2  
**Impact Factor: 3.189**

### Biostatistics

1. Derman W, Schwellnus MP, **Jordaan E**, Runciman P, Van de Vliet P, Blauwet C, Webborn N, Willick S, Stomphorst J. The incidence and patterns of illness at the Sochi 2014 Winter Paralympic Games: a prospective cohort study of 6564 athlete days. British Journal of Sports Medicine. 2016 May 9. [Original]  
DOI: 10.1136/bjsports-2016-096215  
**Impact Factor: 6.724**
2. Steyn NP, Jaffer N, Nel J, Levitt N, Steyn K, **Lombard C**, Peer N. dietary intake of the urban black population of Cape Town: The Cardiovascular Risk in Black South Africans (CRIBSA) Study. Nutrients. 2016 May 13; 8(5). pii: E285. [Original]  
DOI: 10.3390/nu8050285  
**Impact Factor: 3.759**
3. **Lombard C**, Cousens S, Tylleskär T, van de Perre P, Nagot N. Trial size, HIV pre-exposure prophylaxis, and breastfeeding - Authors' reply. Lancet. 2016 May 21; 387(10033): 2091. [Letter]  
DOI: 10.1016/S0140-6736(16)30540-2  
**Impact Factor: 44.002**

4. Subnational Estimates Working Group of the HIV Modelling Consortium [including **Manda SOM**]. Evaluation of geospatial methods to generate subnational HIV prevalence estimates for local level planning. *AIDS*. 2016 May 11. [Original]  
DOI: 10.1097/QAD.0000000000001075  
**Impact Factor: 4.407**

### Burden of Disease

1. **Matzopoulos R**. Gun control saves lives. *South African Medical Journal*. 2016 May 19. [Editorial]  
DOI: 10.7196/SAMJ.2016.v106i6.11034  
**Impact Factor: 1.500**
2. **Matzopoulos R, Groenewald P, Abrahams N, Bradshaw D**. Where have all the gun deaths gone? *South African Medical Journal*. 2016 May 19. [Original]  
DOI: 10.7196/SAMJ.2016.v106i6.10379  
**Impact Factor: 1.500**
3. Oni T, Smit W, **Matzopoulos R**, Hunter Adams J, Pentecost M, Rother HA, Albertyn Z, Behroozi F, Alaba O, Kaba M, van der Westhuizen C, King MS, Levitt NS, Parnell S, Lambert EV. Urban health research in Africa: Themes and priority research questions. *Journal of Urban Health*. 2016 May 16. [Original]  
DOI: 10.1007/s11524-016-0050-0  
**Impact Factor: 2.046**

### Centre for Tuberculosis

1. **Chegou NN, Sutherland JS, Malherbe S, Crampin AC, Corstjens PL, Geluk A, Mayanja-Kizza H, Loxton AG, van der Spuy G, Stanley K, Kotzé LA, van der Vyver M, Rosenkrands I, Kidd M, van Helden PD, Dockrell HM, Ottenhoff TH, Kaufmann SH, Walzl G**; AE-TBC consortium. Diagnostic performance of a seven-marker serum protein biosignature for the diagnosis of active TB disease in African primary healthcare clinic attendees with signs and symptoms suggestive of TB. *Thorax*. 2016 May 4. [Original]  
DOI: 10.1136/thoraxjnl-2015-207999  
**Impact Factor: 8.121**
2. Mbugi EV, Katale BZ, **Streicher EM, Keyyu JD, Kendall SL, Dockrell HM, Michel AL, Rweyemamu MM, Warren RM, Matee MI, van Helden PD, Couvin D, Rastogi N**. Mapping of *Mycobacterium tuberculosis* complex genetic diversity profiles in Tanzania and other African countries. *PLoS One*. 2016 May 5; 11(5): e0154571. [Original]  
DOI: 10.1371/journal.pone.0154571  
**Impact Factor: 3.057**
3. **Parsons SD, McGill K, Doyle MB, Goosen WJ, van Helden PD, Gormley E**. Antigen-specific IP-10 release is a sensitive biomarker of *Mycobacterium bovis* infection in cattle. *PLoS One*. 2016 May 11; 11(5): e0155440. [Original]  
DOI: 10.1371/journal.pone.0155440  
**Impact Factor: 3.057**
4. **Whitfield MG, Streicher EM, Dolby T, Simpson JA, Sampson SL, van Helden PD, van Rie A, Warren RM**. Prevalence of pyrazinamide resistance across the spectrum of drug resistant phenotypes of *Mycobacterium tuberculosis*. *Tuberculosis*. 2016 May 30; 99: 128-30. [Original]  
DOI: 10.1016/j.tube.2016.05.003  
**Impact Factor: 2.952**



## Gender and Health

1. **Jewkes R**, Nduna M, **Jama-Shai N**, **Chirwa E**, **Dunkle K**. Understanding the relationships between gender inequitable behaviours, childhood trauma and socio-economic status in single and multiple perpetrator rape in rural South Africa: Structural equation modelling. *PLoS One*. 2016 May 16; 11(5): e0154903. [Original]  
DOI: 10.1371/journal.pone.0154903  
**Impact Factor: 3.057**

## Health Systems

1. Das-Munshi J, Lund C, **Mathews C**, Clark C, Rethon C, Stansfeld S. Mental health inequalities in adolescents growing up in post-apartheid South Africa: Cross-sectional survey, SHaW Study. *PLoS One*. 2016 May 03; 11(5): e0154478. [Original]  
DOI: 10.1371/journal.pone.0154478  
**Impact Factor: 3.057**
2. Pellowski J, **Mathews C**, Kalichman MO, **Dewing S**, Lurie MN, Kalichman SC. Advancing partner notification through electronic communication technology: A review of acceptability and utilization research. *Journal of Health Communication*. 2016 May 04. [Original]  
DOI: 10.1080/10810730.2015.1128020  
**Impact Factor: 2.013**
3. **Mathews C**, Eggers SM, **Townsend L**, Aaro LE, de Vries PJ, Mason-Jones AJ, De Koker P, **McClinton Appollis T**, **Mtshizana Y**, Koech J, Wubs A, de Vries H. Effects of PREPARE, a multi-component, school-based HIV and Intimate Partner Violence (IPV) Prevention Programme on adolescent sexual risk behaviour and IPV: Cluster randomised controlled trial. *AIDS & Behavior*. 2016 May 03: 1-20. [Original]  
DOI: 10.1007/s10461-016-1410-1  
**Impact Factor: 3.063**
4. Kalichman SC, **Mathews C**, Kalichman M, Lurie MN, **Dewing S**. Perceived barriers to partner notification among sexually transmitted infection clinic patients, Cape Town, South Africa. *Journal of Public Health (Oxford, England)*. 2016 May 24: pii: fdw051. [Epub ahead of print]. [Original]  
DOI: 10.1093/pubmed/fdw051  
**Impact Factor: 2.019**

## HIV Prevention

1. **Moodley J**, **Naidoo S**, **Moodley J**, **Ramjee G**. Sharing of investigational drug among participants in the Voice Trial. *AIDS and Behavior*. 2016 May 04. [Original]  
DOI: 10.1007/s10461-016-1414-x  
**Impact Factor: 3.063**
2. Luecke EH, Cheng H, **Woeber K**, Nakyanzi T, Mudekunya-Mahaka IC, van der Straten A, MTN-003D Study team. Stated product formulation preferences for HIV pre-exposure prophylaxis among women in the VOICE-D (MTN-003D) study. *Journal of the International AIDS Society*. 2016 May 30; 19(1): 20875. [Original]  
DOI: 10.7448/ias.19.1.20875  
**Impact Factor: 6.256**

## MRC Office of Cancer

1. Moodley J, **Stefan DC**, Sewram V, Ruff P, Freeman M, Asante-Shongwe K. An overview of cancer research in South African academic and research institutions, 2013 - 2014. *South African Medical Journal*. 2016 May 10; 106(6): 607-10. [Original]  
DOI: 10.7196/SAMJ.2016.v106i6.10314  
**Impact Factor: 1.500**

## MRC Office of Tuberculosis

1. **Malinga L, Brand J, Olorunju S, Stoltz A, van der Walt M.** Molecular analysis of genetic mutations among cross-resistant second-line injectable drugs reveals a new resistant mutation in Mycobacterium tuberculosis. *Diagnostic Microbiology and Infectious Disease*. 2016 May 20. [Original]  
DOI: 10.1016/j.diagmicrobio.2016.05.010  
**Impact Factor: 2.450**
2. Tudor C, **van der Walt ML**, Margot B, Dorman SE, Pan WK, Yenokyan G, Farley JE. Occupational risk factors for tuberculosis among healthcare workers in KwaZulu-Natal, South Africa. *Clinical Infectious Diseases*. 2016 May 15; 62 Suppl 3: S255-61. [Original]  
DOI: 10.1093/cid/ciw046  
**Impact Factor: 8.736**

## Non-Communicable Disease

1. Zemlin AE, Matsha TE, **Kengne AP**, Hon GM, Erasmus RT. Correlation of E-selectin concentrations with carotid intima-media thickness and cardio-metabolic profile of mixed ancestry South Africans: A cross-sectional study. *Annals of Clinical Biochemistry*. 2016 May 1. [Original]  
DOI: 10.1177/0004563216640001  
**Impact Factor: 2.119**
2. Malambo P, **Kengne AP**, Lambert EV, de Villers A, Puoane TR. Association between perceived built environment and prevalent hypertension among South African adults. *Advances in Epidemiology*. 2016 May 19. [Original]  
DOI: 10.1155/2016/1038715  
**Impact Factor: None**
3. Keswell D, Tootla M, **Goedecke JH**. Associations between body fat distribution, insulin resistance and dyslipidaemia in black and white South African women. *Cardiovascular Journal of Africa*. 2016 May 25; 27: 1-7. [Original]  
DOI: 10.5830/CVJA-2015-088  
**Impact Factor: 1.022**
4. **George C**, Goedecke JH, Crowther NJ, Jaff NG, **Kengne AP**, Norris SA, Micklesfield LK. The role of body fat and fat distribution in hypertension risk in urban black South African women. *PLoS One*. 2016 May 12; 11(5): e0154894. [Original]  
DOI: 10.1371/journal.pone.0154894  
**Impact Factor: 3.057**
5. Katte JC, Sobngwi E, Kamwa V, Dehayem MY, Nguewa JL, **Kengne AP**, Mbanya JC. The effects of a one-week short intensive insulin intervention on insulin sensitivity in patients with poorly controlled Type 2 diabetes. *International Journal of Diabetes and Clinical Research*. 2016 May 12; 3(2): 056. [Original]  
**Impact Factor: None**

## South African Cochrane Centre

1. Chiwanga FS, Njelekela MA, Diamond MB, Bajunirwe F, Guwatudde D, Nankya-Mutyoba J, Kalyesubula R, Adebamowo C, Ajayi I, Reid TG, **Volmink J**, Laurence C, Adami HO, Holmes MD, Dalal S. Urban and rural prevalence of diabetes and pre-diabetes and risk factors associated with diabetes in Tanzania and Uganda. *Global Health Action*. 2016 May 23; 9: 31440. [Original]  
DOI: 10.3402/gha.v9.31440  
**Impact Factor: 1.896**

## 2. EXTRAMURAL RESEARCH UNITS

### Antiviral Gene Therapy

1. **Bourhill T, Arbuthnot P, Ely A.** Successful disabling of the 5' UTR of HCV using adeno-associated viral vectors to deliver modular multimeric primary microRNA mimics. *Journal of Virological Methods*. 2016 May 12; 235: 26-33. [Original]  
DOI: 10.1016/j.jviromet.2016.05.008  
**Impact Factor: 1.508**

### Anxiety and Stress Disorders

1. du Plessis S, Vink M, Joska JA, Koutsilieri E, Bagadia A, **Stein DJ**, Emsley R. Prefrontal cortical thinning in HIV infection is associated with impaired striatal functioning. *Journal of Neural Transmission (Vienna)*. 2016 May 12. [Original]  
DOI: 10.1007/s00702-016-1571-0  
**Impact Factor: 2.587**
2. Kilaru V, Iyer SV, Almli LM, Stevens JS, Lori A, Jovanovic T, Ely TD, Bradley B, Binder EB, **Koen N, Stein DJ**, Conneely KN, Wingo AP, Smith AK, Ressler KJ. Genome-wide gene-based analysis suggests an association between NeuroLigin 1 (NLGN1) and post-traumatic stress disorder. *Translational Psychiatry*. 2016 May 24; 6: e820. [Original]  
DOI: 10.1038/tp.2016.69  
**Impact Factor: 5.538**
3. Fouche JP, du Plessis S, Hattingh C, **Roos A, Lochner C**, Soriano-Mas C, Sato JR, Nakamae T, Nishida S, Kwon JS, Jung WH, Mataix-Cols D, Hoexter MQ, Alonso P; OCD Brain Imaging Consortium, de Wit SJ, Veltman DJ, **Stein DJ**, van den Heuvel OA. Cortical thickness in obsessive-compulsive disorder: multisite mega-analysis of 780 brain scans from six centres. *British Journal of Psychiatry*. 2016 May 19. [Original]  
DOI: 10.1192/bjp.bp.115.164020  
**Impact Factor: 7.060**
4. Breen MS, **Uhlmann A**, Nday CM, Glatt SJ, Mitt M, Metsalpu A, **Stein DJ**, Illing N. Candidate gene networks and blood biomarkers of methamphetamine-associated psychosis: an integrative RNA-sequencing report. *Translational Psychiatry*. 2016 May 10; 6: e802. [Original]  
DOI: 10.1038/tp.2016.67  
**Impact Factor: 5.538**

### Developmental Pathways for Health

1. Matovu FK, Wattanachanya L, Beksinska M, **Pettifor JM**, Ruxrungtham K. Bone health and HIV in resource-limited settings: A scoping review. *Current opinion in HIV and AIDS*. 2016 May; 11(3): 306-25. [Review]  
DOI: 10.1097/COH.0000000000000274  
**Impact Factor: 4.378**
2. **Pedro TM, Micklesfield LK**, Kahn K, Tollman SM, **Pettifor JM, Norris SA**. Body image satisfaction, eating attitudes and perceptions of female body silhouettes in rural South African adolescents. *PLoS One*. 2016 May 12; 11(5): e0154784. [Original]  
DOI: 10.1371/journal.pone.0154784  
**Impact Factor: 3.057**

3. Runciman P, Tucker R, Ferreira S, Albertus-Kajee Y, **Micklesfield L**, Derman W. Site-specific bone mineral density is unaltered despite differences in fat-free soft tissue mass between affected and nonaffected sides in hemiplegic paralympic athletes with cerebral palsy: Preliminary findings. *American Journal of Physical Medicine and Rehabilitation*. 2016 May 4. [Original]  
DOI: 10.1097/PHM.0000000000000532  
**Impact Factor: 2.064**
4. Chantler S, Dickie K, **Micklesfield LK**, Goedecke JH. Determinants of change in body weight and body fat distribution over 5.5 years in a sample of free-living black South African women. *Cardiovascular Journal of Africa*. 2016 May 25; 27: 1-8. [Original]  
DOI: 10.5830/CVJA-2016-038  
**Impact Factor: 1.022**

### Diarrhoeal Pathogens

1. Matthiessen L, Colli W, Delfraissy J-F, Hwang E-S, **Mphahlele J**, Ouellette M; GloPID-R members. Coordinating funding in public health emergencies. *Lancet*. 2016 May 28; 387(10034): 2197-8. [Letter]  
DOI: 10.1016/S0140-6736(16)30604-3  
**Impact Factor: 44.002**
2. Amponsah-Dacosta E, Rakgole JN, Gededzha MP, Lukhwareni A, Blackard JT, Selabe SG, **Mphahlele MJ**. Evidence of susceptibility to lamivudine-based HAART and genetic stability of Hepatitis B virus (HBV) in HIV co-infected patients: A South African longitudinal HBV whole genome study. *Infection, Genetics and Evolution*. 2016 May 28. [Original]  
DOI: 10.1016/j.meegid.2016.05.035  
**Impact Factor: 2.591**

### Herbal Drugs

1. Chen W, Nkosi TAN, **Combrinck S**, **Viljoen AM**, Cartwright-Jones C. Rapid analysis of the skin irritant p-phenylenediamine (PPD) in henna products using atmospheric solids analysis probe mass spectrometry. *Journal of Pharmaceutical and Biomedical Analysis*. 2016 May 12. [Original]  
DOI: 10.1016/j.jpba.2016.05.020  
**Impact Factor: 3.169**
2. Mahumane GD, van Vuuren SF, Kamatou G, Sandasi M, **Viljoen AM**. Chemical composition and antimicrobial activity of *Eucalyptus radiata* leaf essential oil, sampled over a year. *Journal of Essential Oil Research*. 2016 May 02. [Original]  
DOI: 10.1080/10412905.2016.1175386  
**Impact Factor: 0.871**

### HIV/TB Pathogenesis and Treatment

1. **Shey MS**, Maharaj N, Archary D, Ngcapu S, Garrett N, Abdool Karim S, Passmore JAS. Modulation of female genital tract-derived dendritic cell migration and activation in response to inflammatory cytokines and toll-like receptor agonists. *PLoS One*. 2016 May 12; 11(5): e0155668. [Original]  
DOI: 10.1371/journal.pone.0155668  
**Impact Factor: 3.057**

## Human Genetics

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## Rural Public Health and Health Transition

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DOI: 10.1016/j.pt.2016.04.017  
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7. Mahne AC, Carr JA, **Bardien S**, Schutte CM. Clinical findings and genetic screening for copy number variation mutations in a cohort of South African patients with Parkinson's disease. *South African Medical Journal*. 2016 May 11. [Original]  
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## 4. CLOSED RESEARCH UNITS

### Exercise Science and Sports Medicine

1. Howard SJ, Cook CJ, Mohamed RS, Norris SA, **Draper CE**. The (possibly negative) effects of physical activity on executive functions: implications of the changing metabolic costs of brain development. *Journal of Physical Activity & Health*. 2016 May 11. [Review]  
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### Inter-University Cape Heart

1. **Sliwa K**, Anthony J. Late maternal deaths: A neglected responsibility. *Lancet*. 2016 May 21; 387(10033): 2072-3. [Comment]  
DOI: 10.1016/S0140-6736(16)30391-9  
**Impact Factor: 44.002**
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**Impact Factor: 5.135**
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## **5. RESEARCH UNITS WITH NO QUALIFYING PUBLICATIONS**

### **Intramural**

- Environment and Health
- MRC Office of AIDS
- MRC Office of Malaria
- Primate
- Violence, Injury and Peace

### **Extramural**

- Bioinformatics Capacity Development
- Child and Adolescent Lung Health
- Common Epithelial Cancer
- Drug Discovery and Development
- Gynaecological Cancer
- Health Policy Research Group
- Health Services to Systems
- Immunology of Infectious Disease
- Inter-university Cape Heart
- Maternal and Infant Health Care Strategies
- Medical Imaging
- Molecular Mycobacteriology
- Prospective Gastrointestinal Cancer
- Receptor Biology
- Stem Cell Research and Therapy

## 6. GRANTS AWARDED

<b>SAMRC LIST OF NEW CONTRACTS FOR MAY 2016</b>				
<b>MRC Unit</b>	<b>Funder</b>	<b>Project Title/Description</b>	<b>Contract Value</b>	
			<b>Rand</b>	<b>Foreign Currency</b>
Environmental & Health	National Research Foundation (NRF)	Incentive Funding for Rated Researches	240 000	
Health Systems	National Research Foundation (NRF)	Incentive Funding for Rated Researches	480 000	
HIV Prevention	National Research Foundation (NRF)	Incentive Funding for Rated Researches	480 000	
Non-Communicable Disease	National Research Foundation (NRF)	Incentive Funding for Rated Researchers (IPRRR)	240 000	-



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