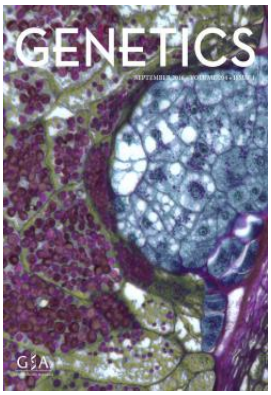
CELEBRATES SCIENCE

JULY 2016

THE SOUTH AFRICAN MEDICAL RESEARCH COUNCIL INFORMATION SERVICES DIVISION

TOP 5 ARTICLES

Director: Prof Paul van Helden



Article:

Uren C, Kim M, Martin AR, Bobo D, Gignoux CR, **van Helden PD**, **Möller M**, **Hoal EG**, Henn BM. Fine-scale human population structure in Southern Africa reflects ecogeographic boundaries. Genetics. 2016 Jul 29. [Original].
DOI: 10.1534/genetics.116.187369
Impact Factor: 4.644

Summary:

Recent genetic studies have established that the KhoeSan populations of southern Africa are distinct from all other African populations and have remained largely isolated during human prehistory until ∼2000 years ago. Dozens of different KhoeSan groups exist, belonging to three different language families, but very little is known about their population history. We examine new genome-wide polymorphism data and whole mitochondrial genomes for >100 South Africans from the ≠Khomani San and Nama populations of the Northern Cape, analyzed in conjunction with 19 additional southern African populations. Our analyses reveal fine-scale population structure in and around the Kalahari Desert. Surprisingly, this structure does not always correspond to linguistic or subsistence categories as previously suggested, but rather reflects the role of geographic barriers and the ecology of the greater Kalahari Basin. Regardless of subsistence strategy, the indigenous Khoe-speaking Nama pastoralists and the N|u-speaking ≠Khomani (formerly hunter-gatherers) share ancestry with other Khoe-speaking forager populations that form a rim around the Kalahari Desert. We reconstruct earlier migration patterns and estimate that the southern Kalahari populations were among the last to experience gene flow from Bantu speakers, ∼14 generations ago. We conclude that local adoption of pastoralism, at least by the Nama, appears to have been primarily a cultural process with limited genetic impact from eastern Africa.

Director: Prof Paul van Helden

Article:

Miller MA, Hogan JN, Meehan CL. Housing and demographic risk factors impacting foot and musculoskeletal health in African elephants [Loxodonta africana] and Asian elephants [Elephas maximus] in North American zoos. PLoS One. 2016 Jul 14;11(7): e0155223. [Original]
DOI: 10.1371/journal.pone.0155223
Impact Factor: 3.057

Summary:

For more than three decades, foot and musculoskeletal conditions have been documented among both Asian [Elephas maximus] and African [Loxodonta africana] elephants in zoos. Although environmental factors have been hypothesized to play a contributing role in the development of foot and musculoskeletal pathology, there is a paucity of evidence-based research assessing risk. We investigated the associations between foot and musculoskeletal health conditions with demographic characteristics, space, flooring, exercise, enrichment, and body condition for elephants housed in North American zoos during 2012. Clinical examinations and medical records were used to assess health indicators and provide scores to quantitate conditions. Using multivariable regression models, associations were found between foot health and age [P value = 0.076; Odds Ratio = 1.018], time spent on hard substrates [P value = 0.022; Odds Ratio = 1.014], space experienced during the night [P value = 0.041; Odds Ratio = 1.008], and percent of time spent in indoor/outdoor exhibits during the day [P value < 0.001; Odds Ratio = 1.003]. Similarly, the main risk factors for musculoskeletal disorders included time on hard substrate [P value = 0.002; Odds Ratio = 1.050] and space experienced in indoor/outdoor exhibits [P value = 0.039; Odds Ratio = 1.037]. These results suggest that facility and management changes that decrease time spent on hard substrates will improve elephant welfare through better foot and musculoskeletal health.

Director: Prof Paul van Helden

Article:

Leisching G, **Pietersen RD**, **Wiid I**, **Baker B**. Virulence, biochemistry, morphology and host-interacting properties of detergent-free cultured mycobacteria: An update. Tuberculosis (Edinb). 2016 Jul 13. [Review].
DOI: 10.1016/j.tube.2016.07.002
Impact Factor: 2.952

Summary:

The culturing of mycobacteria is a standard procedure that is consistent world-wide, with little variation in the growth media constituents, particularly those found in liquid and solid media. Before the 1940s however, the aggregating nature of mycobacteria as well as the characteristic slow growth-rate saw mycobacterial research delay considerably. Dubos and colleagues addressed both these issues and observed that a very small volume of Tween detergent was sufficient to greatly improve the culturing of mycobacteria. Over the years however, evidence of the unfavourable effects of this detergent on a number of morphological, biochemical, pathogenic and host-interacting properties of mycobacteria surfaced. For the first time we bring together literature, past and present to comprehensively review the mycobacterial properties which are, and are not affected by the use of this detergent. We also address other detergents and methods which may circumvent the need to include Tween compounds in mycobacterial culture media.

Director: Prof. Dan Stein

BMC Psychiatry

Article:

Atwoli L, Platt JM, Basu A, Williams DR, **Stein DJ**, Koenen KC. Associations between lifetime potentially traumatic events and chronic physical conditions in the South African Stress and Health Survey: A cross-sectional study. BMC Psychiatry. 2016 Jul 7; 16: 214. [Original]
DOI: 10.1186/s12888-016-0929-z
Impact Factor: 2.576

Summary:

Background: This study examined the association between the type, and cumulative number of lifetime potentially traumatic events (PTEs), and chronic physical conditions, in a South African sample. PTE exposures have been associated with an increased risk for a wide range of chronic physical conditions, but it is unclear whether psychiatric disorders mediate this association. Given the established differences in trauma occurrence, and the epidemiology of posttraumatic stress disorder (PTSD) in South Africa relative to other countries, examining associations between PTEs and chronic physical conditions, particularly while accounting for psychiatric comorbidity is important.

Methods: Data were drawn from the South African Stress and Health Study, a cross-sectional population-representative study of psychological and physical health of South African adults. Twenty-seven PTEs, based on the World Health Organization Composite International Diagnostic Interview Version 3.0, DSM-IV PTSD module were grouped into seven PTE types (war events, physical violence, sexual violence, accidents, unexpected death of a loved one, network events, and witnessing PTEs). Five clusters of physical conditions (cardiovascular, arthritis, respiratory, chronic pain, and other health conditions) were examined. Logistic regressions assessed the odds of reporting a physical condition in relation to type and cumulative number of PTEs. Cochran-Armitage test for trend was used to examine dose-response effect of cumulative PTEs on physical conditions.

Results: After adjusting for sociodemographic variables and psychiatric disorders, respondents with any PTE had increased odds of all assessed physical conditions, ranging between 1.48 (95 % CI: 1.06-2.07) for arthritis and 2.07 (95 % CI: 1.57-2.73) for respiratory conditions, compared to those without PTE exposure. Sexual violence, physical violence, unexpected death of a loved one, and network PTEs significantly increased the odds of all or nearly all the physical conditions assessed. There was a dose-response relationship between number of PTEs and increased odds of all physical conditions.

Conclusions: Results from this study, the first in an African general population, are consistent with other population-based studies; PTEs confer a broad-spectrum risk for chronic physical conditions, independent of psychiatric disorders. These risks increase with each cumulative PTE exposure. Clinically, comprehensive evaluations for risk of mental and physical health morbidities should be considered among PTE survivors.

Director: Prof Debbie Bradshaw

BMJ open

Article:

Nglazi MD, **Joubert JD**, Stein DJ, Lund C, Wiysonge CS, Vos T, **Pillay-van Wyk V**, **Roomaney RA**, Muhwava LS, **Bradshaw D**. Epidemiology of major depressive disorder in South Africa (1997-2015): A systematic review protocol. BMJ Open. 2016 Jul 4;6(7): e011749. [Original]
DOI: 10.1136/bmjopen-2016-011749
Impact Factor: 2.562

Summary:

Introduction: Major depressive disorder (MDD) is a leading cause of disease and disability globally and in South Africa. Epidemiological data for MDD are essential to estimate the overall disease burden in a country. The objective of the systematic review is to examine the evidence base for prevalence, incidence, remission, duration, severity, case fatality and excess mortality of MDD in South Africa from 1997 to 2015.

Methods and analysis: We will perform electronic searches in PubMed, PsycINFO, Scopus and other bibliographical databases. Articles published between January 1997 and December 2015 will be eligible for inclusion in this review. The primary outcomes will be prevalence, incidence, remission, duration, severity, case fatality and excess mortality of MDD. The secondary outcomes will be risk factors and selected populations for MDD. If appropriate, a meta-analysis will be performed. If a meta-analysis is not possible, the review findings will be presented narratively and in tables. Subgroup analyses will be conducted with subgroups defined by population group, rural/urban settings and study designs, if sufficient data are available.

Ethics and dissemination: The systematic review will use published data that are not linked to individuals. The review findings may have implications for future research prioritisation and disease modelling of MDD to estimate its morbidity burden in South Africa, and will be disseminated electronically and in print through peer-reviewed publications.

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1. INTRAMURAL RESEARCH UNITS

Alcohol, Tobacco and Other Drug

1. **Carney T**, **Petersen Williams PM**, **Parry CD**. Ithubalethu-Intervention to address drug use and sexual HIV risk patterns among female commercial sex workers in Durban, South Africa. Journal of Psychoactive Drugs. 2016 Jul 20. [Original]
DOI: 10.1080/02791072.2016.1208855
Impact Factor: 1.755

2. **Carney T**, **Myers B**, Louw J. Reliability of the GAIN-SS, CRAFTT and PESQ screening instruments for substance use among South African adolescents. South African Journal of Psychiatry. 2016 Jul 15; 22(1): a932. [Original]
DOI: 10.4102/SAJPSYCHIATRY.V22I1.932
Impact Factor: 0.193

3. Foley M, **Carney T**, **Rich E**, **Parry C**, van Hout MC, Deluca P. Medical professionals' perspectives on prescribed and over-the-counter medicines containing codeine: A cross-sectional study. BMJ Open. 2016 Jul 14; 6(7): e011725. [Original]
DOI: 10.1136/bmjopen-2016-011725
Impact Factor: 2.562

4. **Morojele NK**, Brook JS, Brook DW. Tobacco and alcohol use among adolescents in South Africa: Shared and unshared risks. Journal of Child and Adolescent Mental Health. 2016 Jul 29; 28(2): 139-52. [Original]
DOI: 10.2989/17280583.2016.1200586
Impact Factor: None

5. **Myers B**, Sorsdahl K, **Morojele NK**, **Kekwaletswe C**, **Shuper PA**, **Parry CD**. "In this thing I have everything I need": Perceived acceptability of a brief alcohol-focused intervention for people living with HIV. AIDS Care. 2016 Jul 19: 1-5. [Original]
DOI: 10.1080/09540121.2016.1211242
Impact Factor: 1.902

Biostatistics

1. Cluver L, Meinck F, Shenderovich Y, Ward CL, Romero RH, Redfern A, **Lombard C**, Doubt J, Steinert J, Catanho R, Wittesaele C, de Stone S, Salah N, Mpimpilashe P, Lachman J, Loening H, Gardner F, Blanc D, Nocuza M, Lechowicz M. A parenting programme to prevent abuse of adolescents in South Africa: Study protocol for a randomised controlled trial. Trials. 2016 Jul 19; 17(1): 328. [Original]
DOI: 10.1186/s13063-016-1452-8
Impact Factor: 1.859

2. Fadnes LT, Nankabirwa V, Engebretsen IM, Sommerfelt H, Birungi N, **Lombard C**, **Swanevelder S**, van den Broeck J, Tylleskär T, Tumwine JK; PROMISE-EBF Study Group. Effects of an exclusive breastfeeding intervention for six months on growth patterns of 4-5 year-old children in Uganda: The cluster-randomised PROMISE EBF trial. BMC Public Health. 2016 Jul 12; 16: 555. [Original]
DOI: 10.1186/s12889-016-3234-3
Impact Factor: 2.209

Burden of Disease

1. **Nglazi MD**, **Joubert JD**, Stein DJ, Lund C, Wiysonge CS, Vos T, **Pillay-van Wyk V**, **Roomaney RA**, Muhwava LS, **Bradshaw D**. Epidemiology of major depressive disorder in South Africa (1997-2015): A systematic review protocol. BMJ Open. 2016 Jul 4; 6(7): e011749. [Original]
DOI: 10.1136/bmjopen-2016-011749
Impact Factor: 2.562

2. Cassidy T, Bowman B, McGrath C, **Matzopoulos R**. Brief report on a systematic review of youth violence prevention through media campaigns: Does the limited yield of strong evidence imply methodological challenges or absence of effect? Journal of Adolescence. 2016 Jul 30. [Original]
DOI: 10.1016/j.adolescence.2016.07.002
Impact Factor: 2.007

Centre for Tuberculosis

1. Glanzmann B, Herbst H, **Kinnear CJ**, **Möller M**, Gamieldien J, Bardien S. A new tool for prioritization of sequence variants from whole exome sequencing data. Source Code for Biology and Medicine. 2016 Jul 1; 11: 10. [Original]
DOI: 10.1186/s13029-016-0056-8
Impact Factor: None

2. Chengalroyen MD, Beukes GM, Gordhan BG, **Streicher EM**, Churchyard G, Hafner R, **Warren R**, Otwombe K, Martinson N, Kana BD. Detection and quantification of differentially culturable tubercle bacteria in sputum from tuberculosis patients. American Journal of Respiratory and Critical Care Medicine. 2016 Jul 7. [Original]
Impact Factor: 13.118

3. **Leisching G**, **Pietersen RD**, **Wiid I**, **Baker B**. Virulence, biochemistry, morphology and host-interacting properties of detergent-free cultured mycobacteria: An update. Tuberculosis (Edinb). 2016 Jul 13. [Review]
DOI: 10.1016/j.tube.2016.07.002
Impact Factor: 2.952

4. **Uren C**, Kim M, Martin AR, Bobo D, Gignoux CR, **van Helden PD**, **Möller M**, **Hoal EG**, Henn BM. Fine-scale human population structure in Southern Africa reflects ecogeographic boundaries. Genetics. 2016 Jul 29. [Original]
DOI: 10.1534/genetics.116.187369
Impact Factor: 4.644

5. **du Plessis WJ**, Keyser A, **Walzl G**, **Loxton AG**. Phenotypic analysis of peripheral B cell populations during Mycobacterium tuberculosis infection and disease. Journal of Inflammation (Lond). 2016 Jul 29; 13: 23. [Original]
DOI: 10.1186/S12950-016-0133-4
Impact Factor: 1.975

6. **Miller MA**, Hogan JN, Meehan CL. Housing and demographic risk factors impacting foot and musculoskeletal health in African elephants [Loxodonta africana] and Asian elephants [Elephas maximus] in North American zoos. PLoS One. 2016 Jul 14; 11(7): e0155223. [Original]
DOI: 10.1371/journal.pone.0155223
Impact Factor: 3.057

7. Garcia BJ, **Loxton AG**, Dolganov GM, Van TT, Davis JL, de Jong BC, Voskuil MI, Leach SM, Schoolnik GK, **Walzl G**, Strong M, Walter ND. Sputum is a surrogate for bronchoalveolar lavage for monitoring Mycobacterium tuberculosis transcriptional profiles in TB patients. Tuberculosis (Edinb). 2016 Jul 25. [Original]
DOI: 10.1016/j.tube.2016.07.004
Impact Factor: 2.952

Gender and Health

1. **Beattie TS**, **Isac S**, **Bhattacharjee P**, **Javalkar P**, **Davey C**, **Raghavendra T**, **Nair S**, **Ramanaik S**, **Kavitha DL**, **Blanchard JF**, **Watts C**, **Collumbien M**, **Moses S**, **Heise L**. Reducing violence and increasing condom use in the intimate partnerships of female sex workers: Study protocol for Samvedana Plus, a cluster randomised controlled trial in Karnataka state, south India. BMC Public Health. 2016 Jul 29; 16:660. [Original]
Impact Factor: 2.209

Health Systems

1. **Bhana A**, Mellins CA, Small L, Nestadt DF, Leu CS, Petersen I, Machanyangwa S, McKay M. Resilience in perinatal HIV+ adolescents in South Africa. AIDS Care. 2016 Jul 8; 28 Suppl 2: 49-59. [Original]
DOI: 10.1080/09540121.2016.1176676
Impact Factor: 1.902

2. Glenton C, **Lewin S**, Gulmezoglu AM. Expanding the evidence base for global recommendations on health systems: Strengths and challenges of the OptimizeMNH guidance process. Implementation Science. 2016 Jul 18; 11: 98. [Original]
DOI: 10.1186/s13012-016-0470-y
Impact Factor: 3.201

3. Wainwright M, Colvin CJ, Swartz A, **Leon N**. Self-management of medical abortion: A qualitative evidence synthesis. Reproductive Health Matters. 2016; 24(47): 155-67. Epub 2016 Jul 21. [Original]
DOI: 10.1016/j.rhm.2016.06.008
Impact Factor: 1.221

HIV Prevention

1. Wand H, **Ramjee G**. Identifying factors associated with low-adherence and subsequent HIV seroconversions among South African women enrolled in a biomedical intervention Trial. AIDS and Behavior. 2016 Jul 12. [Original]
DOI: 10.1007/s10461-016-1471-1
Impact Factor: 3.063

2. Coutsoudis A, Daniels B, Moodley-Govender E, Ngomane N, Zako L, Spooner E, **Kiepiela P**, **Reddy S**, Kuhn L, **Ramjee G**. Randomised controlled trial testing the effect of cotrimoxazole prophylaxis on morbidity and mortality outcomes in breastfed HIV-exposed uninfected infants: study protocol. BMJ Open. 2016 Jul 12;6(7): e010656. [Original]
DOI: 10.1136/bmjopen-2015-010656
Impact Factor: 2.562

3. Riddler SA, Husnik M, Gorbach PM, Levy L, Parikh U, Livant E, **Pather A**, Makanani B, Muhlanga F, Kasaro M, Martinson F, Elharrar V, Balkus JE. Long-term follow-up of HIV seroconverters in microbicide trials - rationale, study design, and challenges in MTN-015. HIV Clinical Trials. 2016 Jul 28. [Original]
DOI: 10.1080/15284336.2016.1212561
Impact Factor: 1.951

MRC Office of AIDS

1. Rademeyer C, Korber B, Seaman MS, Giorgi EE, Thebus R, Robles A, Sheward DJ, Wagh K, Garrity J, Carey BR, Gao H, Greene KM, Tang H, Bandawe GP, Marais JC, Diphoko TE, Hraber P, Tumba N, Moore PL, **Gray GE**, Kublin J, McElrath MJ, Vermeulen M, Middelkoop K, Bekker LG, Hoelscher M, Maboko L, Makhema J, Robb ML, Abdool Karim S, Abdool Karim Q, Kim JH, Hahn BH, Gao F, Swanstrom R, Morris L, Montefiori DC, Williamson C. Features of recently transmitted HIV-1 clade C viruses that impact antibody recognition: Implications for active and passive immunization. PLoS Pathogen. 2016 Jul 19; 12(7): e1005742.
DOI: 10.1371/journal.ppat.1005742
Impact Factor: 7.003

MRC Office of Malaria

1. Abiodun GJ, **Maharaj R**, Witbooi P, Okosun KO. Modelling the influence of temperature and rainfall on the population dynamics of Anopheles arabiensis. Malaria Journal. 2016 Jul 15; 15: 364. [Original]
DOI: 10.1186/s12936-016-1411-6
Impact Factor: 3.079

MRC Office of Tuberculosis

1. Webb Mazinyo E, Kim L, **Masuku S**, **Lancaster JL**, **Odendaal R**, Uys M, Podewils LJ, Van der Walt ML. Adherence to concurrent tuberculosis treatment and antiretroviral treatment among co-infected persons in South Africa, 2008-2010. PLoS One. 2016 Jul 21; 11(7): e0159317. [Original]
DOI: 10.1371/journal.pone.0159317
Impact Factor: 3.057

Non-Communicable Disease

1. GBD 2015 HIV Collaborators, Wang H, Wolock TM, Carter A, Nguyen G, Kyu HH, Gakidou E, Hay SI, Mills EJ, Trickey A, Msemburi W, Coates MM, Mooney MD, Fraser MS, Sligar A, Salomon J, Larson HJ, Friedman J, Abajobir AA, Abate KH, Abbas KM, Razek MM, Abd-Allah F, Abdulle AM, Abera SF, Abubakar I, Abu-Raddad LJ, Abu-Rmeileh NM, Abyu GY, Adebiyi AO, Adedeji IA, Adelekan AL, Adofo K, Adou AK, Ajala ON, Akinyemiju TF, Akseer N, Lami FH, Al-Aly Z, Alam K, Alam NK, Alasfoor D, Aldhahri SF, Aldridge RW, Alegretti MA, Aleman AV, Alemu ZA, Alfonso-Cristancho R, Ali R, Alkerwi A, Alla F, Mohammad R, Al-Raddadi S, Alsharif U, Alvarez E, Alvis-Guzman N, Amare AT, Amberbir A, Amegah AK, Ammar W, Amrock SM, Antonio CA, Anwari P, Ärnlöv J, Artaman A, Asayesh H, Asghar RJ, Assadi R, Atique S, Atkins LS, Avokpaho EF, Awasthi A, Quintanilla BP, Bacha U, Badawi A, Barac A, Bärnighausen T, Basu A, Bayou TA, Bayou YT, Bazargan-Hejazi S, Beardsley J, Bedi N, Bennett DA, Bensenor IM, Betsu BD, Beyene AS, Bhatia E, Bhutta ZA, Biadgilign S, Bikbov B, Birlik SM, Bisanzio D, Brainin M, Brazinova A, Breitborde NJ, Brown A, Burch M, Butt ZA, Campuzano JC, Cárdenas R, Carrero JJ, Castañeda-Orjuela CA, Rivas JC, Catalá-López F, Chang HY, Chang JC, Chavan L, Chen W, Chiang PP, Chibalabala M, Chisumpa VH, Choi JY, Christopher DJ, Ciobanu LG, Cooper C, Dahiru T, Damtew SA, Dandona L, Dandona R, das Neves J, de Jager P, De Leo D, Degenhardt L, Dellavalle RP, Deribe K, Deribew A, Des Jarlais DC, Dharmaratne SD, Ding EL, Doshi PP, Driscoll TR, Dubey M, Elshrek YM, Elyazar I, Endries AY, Ermakov SP, Eshrati B, Esteghamati A, Faghmous ID, Farinha CS, Faro A, Farvid MS, Farzadfar F, Fereshtehnejad SM, Fernandes JC, Fischer F, Fitchett JR, Foigt N, Fullman N, Fürst T, Gankpé FG, Gebre T, Gebremedhin AT, Gebru AA, Geleijnse JM, Gessner BD, Gething PW, Ghiwot TT, Giroud M, Gishu MD, Glaser E, Goenka S, Goodridge A, Gopalani SV, Goto A, Gugnani HC, Guimaraes MD, Gupta R, Gupta R, Gupta V, Haagsma J, Hafezi-Nejad N, Hagan H, Hailu GB,

Hamadeh RR, Hamidi S, Hammami M, Hankey GJ, Hao Y, Harb HL, Harikrishnan S, Haro JM, Harun KM, Havmoeller R, Hedayati MT, Heredia-Pi IB, Hoek HW, Horino M, Horita N, Hosgood HD, Hoy DG, Hsairi M, Hu G, Huang H, Huang JJ, Iburg KM, Idrisov BT, Innos K, Iyer VJ, Jacobsen KH, Jahanmehr N, Jakovljevic MB, Javanbakht M, Jayatilleke AU, Jeemon P, Jha V, Jiang G, Jiang Y, Jibat T, Jonas JB, Kabir Z, Kamal R, Kan H, Karch A, Karema CK, Karletsos D, Kasaeian A, Kaul A, Kawakami N, Kayibanda JF, Keiyoro PN, Kemp AH, **Kengne AP**, Kesavachandran CN, Khader YS, Khalil I, Khan AR, Khan EA, Khang YH, Khubchandani J, Kim YJ, Kinfu Y, Kivipelto M, Kokubo Y, Kosen S, Koul PA, Koyanagi A, Defo BK, Bicer BK, Kulkarni VS, Kumar GA, Lal DK, Lam H, Lam JO, Langan SM, Lansingh VC, Larsson A, Leigh J, Leung R, Li Y, Lim SS, Lipshultz SE, Liu S, Lloyd BK, Logroscino G, Lotufo PA, Lunevicius R, Razek HM, Mahdavi M, Majdan M, Majeed A, Makhlouf C, Malekzadeh R, Mapoma CC, Marcenes W, Martinez-Raga J, Marzan MB, Masiye F, Mason-Jones AJ, Mayosi BM, McKee M, Meaney PA, Mehndiratta MM, Mekonnen AB, Melaku YA, Memiah P, Memish ZA, Mendoza W, Meretoja A, Meretoja TJ, Mhimbira FA, Miller TR, Mikesell J, Mirarefin M, Mohammad KA, Mohammed S, Mokdad AH, Monasta L, Moradi-Lakeh M, Mori R, Mueller UO, Murimira B, Murthy GV, Naheed A, Naldi L, Nangia V, Nash D, Nawaz H, Nejjari C, Ngalesoni FN, de Dieu Ngirabega J, Nguyen QL, Nisar MI, Norheim OF, Norman RE, Nyakarahuka L, Ogbo FA, Oh IH, Ojelabi FA, Olusanya BO, Olusanya JO, Opio JN, Oren E, Ota E, Padukudru MA, Park HY, Park JH, Patil ST, Patten SB, Paul VK, Pearson K, Peprah EK, Pereira CC, Perico N, Pesudovs K, Petzold M, Phillips MR, Pillay JD, Plass D, Polinder S, Pourmalek F, Prokop DM, Qorbani M, Rafay A, Rahimi K, Rahimi-Movaghar V, Rahman M, Rahman MH, Rahman SU, Rai RK, Rajsic S, Ram U, Rana SM, Rao PV, Remuzzi G, Rojas-Rueda D, Ronfani L, Roshandel G, Roy A, Ruhago GM, Saeedi MY, Sagar R, Saleh MM, Sanabria JR, Santos IS, Sarmiento-Suarez R, Sartorius B, Sawhney M, Schutte AE, Schwebel DC, Seedat S, Sepanlou SG, Servan-Mori EE, Shaikh MA, Sharma R, She J, Sheikhbahaei S, Shen J, Shibuya K, Shin HH, Sigfusdottir ID, Silpakit N, Silva DA, Silveira DG, Simard EP, Sindi S, Singh JA, Singh OP, Singh PK, Skirbekk V, Sliwa K, Soneji S, Sorensen RJ, Soriano JB, Soti DO, Sreeramareddy CT, Stathopoulou V, Steel N, Sunguya BF, Swaminathan S, Sykes BL, Tabarés-Seisdedos R, Talongwa RT, Tavakkoli M, Taye B, Tedla BA, Tekle T, Shifa GT, Temesgen AM, Terkawi AS, Tesfay FH, Tessema GA, Thapa K, Thomson AJ, Thorne-Lyman AL, Tobe-Gai R, Topor-Madry R, Towbin JA, Tran BX, Dimbuene ZT, Tsilimparis N, Tura AK, Ukwaja KN, Uneke CJ, Uthman OA, Venketasubramanian N, Vladimirov SK, Vlassov VV, Vollset SE, Wang L, Weiderpass E, Weintraub RG, Werdecker A, Westerman R, Wijeratne T, Wilkinson JD, Wiysonge CS, Wolfe CD, Won S, Wong JQ, Xu G, Yadav AK, Yakob B, Yalew AZ, Yano Y, Yaseri M, Yebyo HG, Yip P, Yonemoto N, Yoon SJ, Younis MZ, Yu C, Yu S, Zaidi Z, Zaki Mel S, Zeeb H, Zhang H, Zhao Y, Zodpey S, Zoeckler L, Zuhlke LJ, Lopez AD, Murray CJ. Estimates of global, regional, and national incidence, prevalence, and mortality of HIV, 1980-2015: The Global Burden of Disease Study 2015. Lancet HIV. 2016 Jul 19. [Original]
DOI: 10.1016/S2352-3018(16)30087-X
Impact Factor: 8.364

2. Lekoubou A, Clovis N, Dzudie A, **Kengne AP**. Diagnosed diabetes mellitus and in-hospital stroke mortality in a major sub-Saharan African urban medical unit. Primary Care Diabetes. 2016 Jul 31. pii: S1751-9918(16)30060-2. [Original]
DOI: 10.1016/j.pcd.2016.07.008
Impact Factor: 1.570

3. NCD Risk Factor Collaboration (NCD-RisC) [includes **Kengne AP** & Schutte AE]. A century of trends in adult human height. Elife. 2016 Jul 26;5. pii: e13410. [Original]
DOI: 10.7554/eLife.13410
Impact Factor: 8.282

4. Tanumihardjo SA, Gannon BM, Suri D, **van Jaarsveld PJ**. Concerns when serum retinol concentration is the primary biological indicator of vitamin A status in intervention studies. American Journal of Clinical Nutrition. 2016 Jul;104(1):235-6. DOI: 10.3945/ajcn.116.135483
Impact Factor: 6.703

South African Cochrane Centre

1. McCaul M, **Kredo T**. Antifibrinolytic drugs for acute traumatic injury. South African Medical Journal. 2016 Jul 13; 106(8): 777-8. [Other]
   DOI: 10.7196/SAMJ. 2016.v106i8.11042
   Impact Factor: 1.500

2. Oyo-Ita A, **Wiysonge CS**, Oringanje C, Nwachukwu CE, Oduwole O, Meremikwu MM. Interventions for improving coverage of childhood immunisation in low- and middle-income countries. Cochrane Database of Systematic Reviews. 2016 Jul 10; 7: CD008145. [Review]
   DOI: 10.1002/14651858.CD008145.pub3
   Impact Factor: 6.103

2. EXTRAMURAL RESEARCH UNITS

Anxiety and Stress Disorders

1. Terburg D, Syal S, Rosenberger LA, Heany SJ, **Stein DJ**, Honk Jv. Testosterone abolishes implicit subordination in social anxiety. Psychoneuroendocrinology. 2016 Jul 14. [Original]
DOI: 10.1016/j.psyneuen.2016.07.203
Impact Factor: 4.704

2. Hortensius R, Terburg D, Morgan B, **Stein DJ**, van Honk J, de Gelder B. The dynamic consequences of amygdala damage on threat processing in Urbach-Wiethe Disease.
A commentary on Pishnamazi et al. (2016). Cortex. 2016 Jul 25. pii: S0010-9452(16)30202-7. [Letter]
DOI: 10.1016/j.cortex.2016.07.013
Impact Factor: 4.314

3. Dell'Osso B, Benatti B, Hollander E, Fineberg N, **Stein DJ**, **Lochner C**, Nicolini H, Lanzagorta N, Palazzo C, Altamura AC, Marazziti D, Pallanti S, Van Ameringen M, Karamustafalioglu O, Drummond LM, Hranov L, Figee M, Grant JE, Zohar J, Denys D, Menchon JM. Childhood, adolescent and adult age at onset and related clinical correlates in obsessive-compulsive disorder: a report from the International College of Obsessive-Compulsive Spectrum Disorders (ICOCS). International Journal of Psychiatry in Clinical Practice. 2016 Jul 19. [Original]
DOI: 10.1080/13651501.2016.1207087
Impact Factor: 1.278

4. **Atwoli L**, Platt JM, Basu A, Williams DR, **Stein DJ**, Koenen KC. Associations between lifetime potentially traumatic events and chronic physical conditions in the South African Stress and Health Survey: A cross-sectional study. BMC Psychiatry. 2016 Jul 7; 16:214. [Original]
DOI: 10.1186/s12888-016-0929-z
Impact Factor: 2.576

5. **Stein DJ**, Karam EG, Shahly V, Hill ED, King A, Petukhova M, Atwoli L, Bromet EJ, Florescu S, Haro JM, Hinkov H, Karam A, Medina-Mora ME, Navarro-Mateu F, Piazza M, Shalev A, Torres Y, Zaslavsky AM, Kessler RC. Post-traumatic stress disorder associated with life-threatening motor vehicle collisions in the WHO World Mental Health Surveys. BMC Psychiatry. 2016 Jul 22; 16: 257. [Original]
DOI: 10.1186/s12888-016-0957-8
Impact Factor: 2.576

Child and Adolescent Lung Health

1. **Barnett W**, **Brittain K**, Sorsdahl K, **Zar HJ**, Stein DJ. Maternal participant experience in a South African birth cohort study enrolling healthy pregnant women and their infants. Philosophy, Ethics, and Humanities in Medicine. 2016 Jul 19; 11(1): 3. [Original]
DOI: 10.1186/s13010-016-0036-2
Impact Factor: None

Gynaecological Cancer

1. **Denny L**. Epidemiology and burden of disease associated with HPV infection. Current Obstetrics and Gynecology Reports. 2016 Jul 27.
DOI: 10.1007/s13669-016-0174-y
Impact Factor: None

2. **Saidu R**. Vulvar cancer, HPV infection, and HIV status. Current Obstetrics and Gynecology Reports. 2016 Jul 01.
DOI: 10.1007/s13669-016-0164-0
Impact Factor: None

3. **Adams TS**, **Mbatani NH**, **Rogers LJ**. Management of women with field effect of anogenital human papillomavirus infection. Current Obstetrics and Gynecology Reports. 2016 Jul 02.
DOI: 10.1007/s13669-016-0170-2
Impact Factor: None

Hypertension and Cardiovascular Disease

1. Koegelenberg AS, Smith W, Schutte R, **Schutte AE**. IGF-1 and NT-proBNP in a black and white population: The SABPA study. European Journal of Clinical Investigation. 2016 Jul 25. [Original]
DOI: 10.1111/eci.12663
Impact Factor: 2.687

2. Kriel JI, Fourie CM, **Schutte AE**. Monocyte Chemoattractant Protein-1 and Large Artery Structure and Function in Young Individuals: The African-PREDICT Study. Journal of Clinical Hypertension (Greenwich). 2016 Jul 25. [Original]
DOI: 10.1111/jch.12868
Impact Factor: 2.549

3. **Schutte AE**, Conti E, Mels CM, Smith W, Kruger R, Botha S, Gnessi L, Volpe M, **Huisman HW.** Attenuated IGF-1 predicts all-cause and cardiovascular mortality in a Black population: A five-year prospective study. European Journal of Preventive Cardiology. 2016 Jul 22. [Original]
DOI: 10.1177/2047487316661436
Impact Factor: 3.361

Maternal and Infant Health Care Strategies

1. **Allanson ER**, Grobicki K, **Pattinson RC**, Dickinson JE. Attitudes towards the implementation of universal umbilical artery lactate analysis in a South African district hospital. BMC Pregnancy and Childbirth. 2016 Jul 18; 16(1): 166. [Original]
DOI: 10.1186/S12884-016-0968-Y
Impact Factor: 2.180

2. **Bergh AM**, Bac M, Hugo J, Sandars J. "Making a difference" - Medical students' opportunities for transformational change in health care and learning through quality improvement projects. BMC Medical Education. 2016 Jul 11;16: 171. [Original]
DOI: 10.1186/s12909-016-0694-1
Impact Factor: 1.312

3. Cornette J, Laker S, Jeffery B, Lombaard H, Alberts A, Rizopoulos D, Roos-Hesselink JW, **Pattinson RC**. Validation of maternal cardiac output assessed by transthoracic echocardiography against pulmonary artery catheters in severely ill pregnant women. A prospective comparative study and systematic review. Ultrasound in Obstetrics & Gynecology. 2016 Jul 12. [Review]
DOI: 10.1002/uog.16015
Impact Factor: 4.254

Rural Public Health and Health Transition

1. Ranganathan M, Heise L, **Pettifor A**, Silverwood RJ, Selin A, **MacPhail C**, Delany-Moretlwe S, **Kahn K**, **Gomez-Olive FX**, Hughes JP, Piwowar-Manning E, Laeyendecker O, Watts C. Transactional sex among young women in rural South Africa: Prevalence, mediators and association with HIV infection. Journal of the International AIDS Society. 2016 Jul 27;19(1):20749. [Original]
DOI: 10.7448/IAS.19.1.20749
Impact Factor: 6.256

2. Wesson HK, Boikhutso N, Hyder AA, Bertram M, **Hofman KJ**. Informing road traffic intervention choices in South Africa: The role of economic evaluations. Global Health Action. 2016 Jul 06; 9: 30728. [Original]
DOI: 10.3402/gha. v9.30728
Impact Factor: 1.712

3. GRANT FUNDED RESEARCH

1. Van Voorhis WC, Adams JH, Adelfio R, Ahyong V, Akabas MH, Alano P, Alday A, Alemán Resto Y, Alsibaee A, Alzualde A, Andrews KT, Avery SV, Avery VM, Ayong L, Baker M, Baker S, Ben Mamoun C, Bhatia S, Bickle Q, Bounaadja L, Bowling T, Bosch J, Boucher LE, Boyom FF, Brea J, Brennan M, Burton A, Caffrey CR, Camarda G, Carrasquilla M, Carter D, Belen Cassera M, Chih-Chien Cheng K, Chindaudomsate W, Chubb A, Colon BL, Colón-López DD, Corbett Y, Crowther GJ, Cowan N, D'Alessandro S, Le Dang N, Delves M, DeRisi JL, Du AY, Duffy S, Abd El-Salam El-Sayed S, Ferdig MT, Fernández Robledo JA, Fidock DA, Florent I, Fokou PV, Galstian A, Gamo FJ, Gokool S, Gold B, Golub T, Goldgof GM, Guha R, Guiguemde WA, Gural N, Guy RK, Hansen MA, Hanson KK, Hemphill A, Hooft van Huijsduijnen R, Horii T, Horrocks P, Hughes TB, Huston C, Igarashi I, Ingram-Sieber K, Itoe MA, Jadhav A, Naranuntarat Jensen A, Jensen LT, Jiang RH, Kaiser A, Keiser J, Ketas T, Kicka S, Kim S, Kirk K, Kumar VP, Kyle DE, Lafuente MJ, Landfear S, Lee N, Lee S, Lehane AM, Li F, Little D, Liu L, Llinás M, Loza MI, Lubar A, Lucantoni L, Lucet I, Maes L, **Mancama D**, Mansour NR, March S, McGowan S, Medina Vera I, Meister S, Mercer L, Mestres J, Mfopa AN, Misra RN, Moon S, Moore JP, Morais Rodrigues da Costa F, Müller J, Muriana A, Nakazawa Hewitt S, Nare B, Nathan C, Narraidoo N, Nawaratna S, Ojo KK, Ortiz D, Panic G, Papadatos G, Parapini S, Patra K, Pham N, Prats S, Plouffe DM, Poulsen SA, Pradhan A, Quevedo C, Quinn RJ, Rice CA, Abdo Rizk M, Ruecker A, St Onge R, Salgado Ferreira R, Samra J, Robinett NG, Schlecht U, Schmitt M, Silva Villela F, Silvestrini F, Sinden R, Smith DA, Soldati T, Spitzmüller A, Stamm SM, Sullivan DJ, Sullivan W, Suresh S, Suzuki BM, Suzuki Y, Swamidass SJ, Taramelli D, Tchokouaha LR, Theron A, Thomas D, Tonissen KF, Townson S, Tripathi AK, Trofimov V, Udenze KO, Ullah I, Vallieres C, Vigil E, Vinetz JM, Voong Vinh P, Vu H, Watanabe NA, Weatherby K, White PM, Wilks AF, Winzeler EA, Wojcik E, Wree M, Wu W, Yokoyama N, Zollo PH, Abla N, Blasco B, Burrows J, Laleu B, Leroy D, Spangenberg T, Wells T, Willis PA. Open source drug discovery with the malaria box compound collection for neglected diseases and beyond. PLoS Pathogens. 2016 Jul 28; 12(7): e1005763. [Original]
DOI: 10.1371/journal.ppat.1005763
Impact Factor: 7.003

2. Chinta KC, Saini V, Glasgow JN, Mazorodze JH, Rahman MA, Reddy D, Lancaster JR [Jr], Steyn AJ. The emerging role of gasotransmitters in the pathogenesis of tuberculosis. Nitric Oxide. 2016 Jul 4. [Review]
DOI: 10.1016/j.niox.2016.06.009
Impact Factor: 3.760

3. Strauss LJ, du Plessis FCP. Automated dose verification in specialized radiotherapy (ADViSR): a tool for Monte Carlo based dose verification. Biomedical Physics & Engineering Express. 2016 July 5; 2(3): 037003. [Original]
DOI: 10.1088/2057-1976/2/3/037003
Impact Factor: None

4. Suliman S, Anthonissen L, Carr J, du Plessis S, Emsley R, Hemmings SM, Lochner C, McGregor N, van den Heuvel L, **Seedat S**. Posttraumatic stress disorder, overweight, and obesity: A systematic review and meta-analysis. Harvard Review of Psychiatry. 2016 Jul-Aug; 24(4): 271-93. [Review]
DOI: 10.1097/HRP.0000000000000106
Impact Factor: 2.328

5. Issarow CM, **Wood R**, Mulder N. Seminal mycobacterium tuberculosis in vivo transmission studies: Reanalysis using probabilistic modelling. Mycobacterial Diseases. 2016 Jul 13: 6: 217. [Original]
DOI:10.4172/2161-1068.1000217
Impact Factor: None

6. **Gräf T**, Machado Fritsch H, de Medeiros RM, Maletich Junqueira D, Esteves de Matos Almeida S, Pinto AR. Comprehensive characterization of HIV-1 molecular epidemiology and demographic history in the Brazilian region most heavily affected by AIDS. Journal of Virology. 2016 Jul 6. [Original]
DOI: 10.1128/JVI.00363-16
Impact Factor: 4.606

7. Robinson C, Tsang L, Solomon A, **Woodiwiss AJ**, Gunter S, Millen AME, Norton GR, Fernandez-Lopez MJ, Hollan I, Dessein PH. Omentin concentrations are independently associated with those of matrix metalloproteinase-3 in patients with mild but not severe rheumatoid arthritis. Rheumatology International. 2016 Jul 30: 1-9. [Original]
DOI: 10.1007/s00296-016-3541-0
Impact Factor: 1.702

8. Quanson JL, Stander MA, Pretorius E, Jenkinson C, Taylor AE, **Storbeck K-H**. High-throughput analysis of 19 endogenous androgenic steroids by ultra-performance convergence chromatography tandem mass spectrometry. Journal of Chromatography B. 2016 Jul 18. [Original]
DOI: 10.1016/j.jchromb.2016.07.024
Impact Factor: 2.687

4. RESEARCH UNITS WITH NO QUALIFYING PUBLICATIONS

Intramural

- Biomedical Research and Innovation Platform
- Environment and Health
- MRC Office of Cancer
- Primate
- Violence, Injury and Peace

Extramural

- Antiviral Gene Therapy
- Bioinformatics Capacity Development
- Common Epithelial Cancer
- Developmental Pathways for Health
- Diarrhoeal Pathogens
- Drug Discovery and Development
- Health Services to Systems
- Herbal Drugs
- HIV/TB Pathogenesis and Treatment
- Human Genetics
- Immunology of Infectious Disease
- Medical Imaging
- Microbial Water Quality Monitoring
- Molecular Mycobacteriology
- Prospective Gastrointestinal Cancer
- Receptor Biology
- Respiratory and Meningeal Pathogens
- Stem Cell Research and Therapy

5. GRANTS AWARDED

SAMRC Unit	Funder	Main Funder	Project Title/Description	Contract Value	
				Rand	Foreign Currency
Biomedical Research & Innovation Platform	The South Africa Rooibos Council (SARC)	The South Africa Rooibos Council (SARC)	Effects of Rooibos polyphenols on Microbiota Regulation, Bioavailability and Bioactivity	481 803	-
			Chronic inflammation as a target for prevention and/or alleviation of metabolic diseases	125 400	-
ATODRU	National Institute of Allergy Infectious Diseases	Boston Medical Center (Activity #0477201)	The Impact of Alcohol Consumption on TB Treatment Outcomes	4 296 996.44	$303 606
	Department of Social Development	The Western Cape Government via its Dept of Social Development		744 966	-
				593 914. 91	-
HIV Prevention	Fred Hutchinson Cancer Research Center	National Institutes of Health	HVTN 703/HVTN 081 Protocol Funding (PF-Chatsworth,SA)	4 300 124.30	$303 827
NCDU –CDL	International Atomic Energy Agency (IAEA)	International Atomic Energy Agency (IAEA)	Using Stable Isotope Dilution to Measure Total Body and Liver Vitamin A Pool Size in Preschool Children Before after Vitamin A Supplementation in an Impoverished South African Community Where Liver is Frequently Eaten and children are exposed	313 976	€20 000
Gender & Health	Oak Foundation	Oak Foundation	Being heard: Promoting ethical and meaningful participation of children in research on sexual violence evidence for prevention of violence against children and violence against women	8 529 850.58	$602 680

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