

## SABPA PROSPECTIVE COHORT STUDY PROGRESS (2008-)

### PRINCIPAL INVESTIGATOR: PROF LEONÉ MALAN

#### **A. CURRENT STATUS**

Successful completion of the 3year follow-up (87.8%)

#### **B. SABPA ACTIVE NATIONAL AND INTERNATIONAL COLLABORATORS**

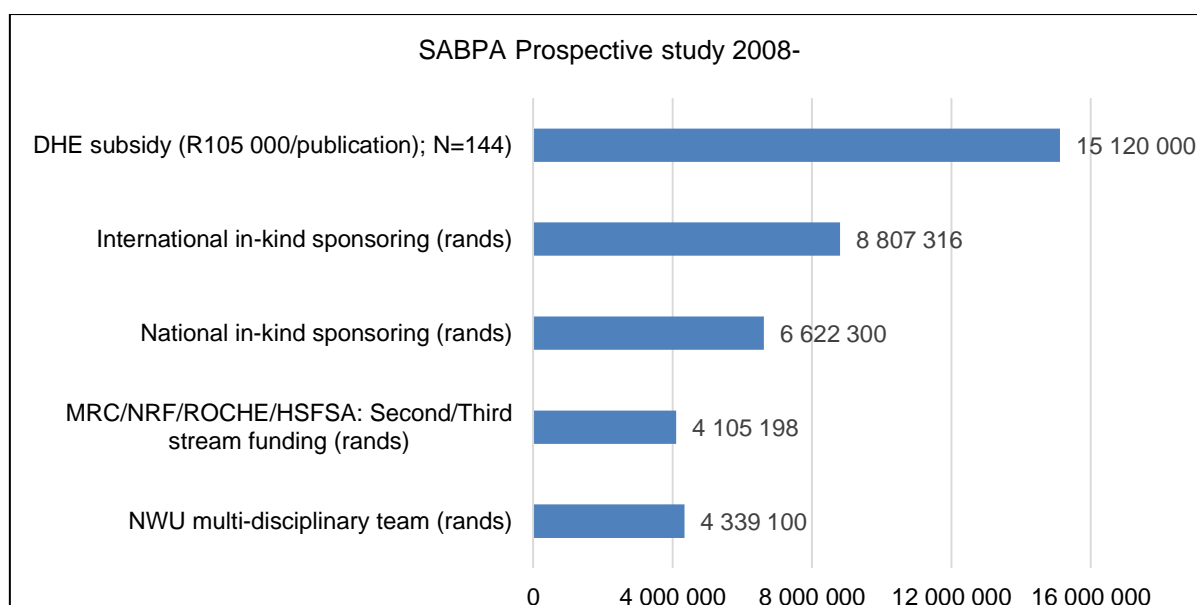
<b>NAME OF COLLABORATOR</b>	<b>ENTITIES</b>	<b>FOCUS OF COLLABORATION</b>	<b>ACTIVE COLLABORATION: <u>SABPA &amp; STRESSED PROJECTS</u></b>
<b>INTERNATIONAL</b>			
1. Prof N Frasure-Smith (PhD)	McGill University, Centre de Recherche de Université de Montréal & Montreal Heart Institute, Quebec, Canada	<b>Depression and CVD risk</b>	Co-author, SABPA design
2. Prof M Hamer (PhD)	University College London, UK	<b>Psychophysiological responses</b>	Author/Co-author, external examiner, co-supervisor, SABPA design
3. Prof R von Känel (MD); Extra-ordinary Professor (HART)	Zürich University, Switzerland	<b>Procoagulation, CVD and mental stress</b>	Author/Co-author, co-supervisor
4. Prof T Ziemssen (MD, PhD) 5. Dr M Reimann (PhD)	Techniklinikum Dresden, Germany	<b>Autonomic Function Retinal vessel analyses</b>	Author/Co-author, co-supervisor, Stressed cohort
6. Dr W Vilser (PhD, Ing) 7. Prof K Kotliar (PhD, Ing)	Imedos, Jena, Germany FH Aachen University, Jülich, Germany	<b>Retinal vessel analyses</b>	External control SABPA retinal images, funding software, co-author
8. Prof JCN de Geus (PhD)	Vrije Universiteit, Amsterdam, The Netherlands	<b>Genetic polymorphisms, autonomic function and mental stress</b>	Co-author
9. Prof M Schlaich (MD, PhD) 10. Prof GW Lambert (PhD)	University Western Australia, Perth, Australia. Swinburne University of Technology, Hawthorn, Melbourne, Australia	<b>Endothelial function  Neurogenic Hypertension</b>	Co-author, funding: 24h urine catecholamine and cortisol
11. Prof A Alkerwi (MD, PhD)	Luxembourg Institute of Health, Luxembourg	<b>Cardiometabolic responses</b>	Co-author
12. Prof M	Lund University,	<b>SABPA: Metabolomics,</b>	Author/Co-author

Magnusson (MD) 13.O Melander (MD)	Malmö, Sweden.	<b>diabetes progression and Cardiovascular disease</b>	
14. Prof S Bacon	Montreal Behavioural Medicine Centre, Canada	<b>Psychophysiological responses</b>	Co-superviso
15. Prof R Böger	University Medical Center, Hamburg, Germany	<b>Endothelial function</b>	Funding/Co-author
<b>SUB-SAHARAN AFRICA</b>			
16. Prof YK Seedat (MD, PhD)	University of KZN, Natal	<b>Planning; co-author, external examiner</b>	Co-author, Dept. Health Guidelines Advisory Board support
17. Prof R Delport (RN, PhD) 18. Prof P Rheeder (MD, PhD)	University Pretoria (UP)	<b>Cardiomyopathy</b>  <b>Cardiometabolic Diseases - Diabetes</b>	Co-authors, collaborators
19. Dr M Zatu (PhD)	Sefako Makgatho University	<b>Cardiometabolic Diseases</b>	Co-author, collaborator, Co-supervisor
20. Prof T Khumalo (PhD)	Vaal Campus, NWU	<b>Psychological stress</b>	Author/co-author, co-supervisor
21. ROCHE Diagnostics	Randburg, Gauteng	<b>Cardiometabolic responses</b>	Funding
22. Multidisciplinary team NWU	Hypertension in Africa Research Team (HART)	HART: cardiometabolic profile	<u>HART</u> Funding, collection of data, co-authoring
	Electrical & Electronic Engineering (P J van Vuuren)	Electrical & Electronic Engineering: Stressed	<u>Electrical &amp; Electron Eng.:</u> Bio-engineering modeling: StresSed phenotype
	PharmaCEN: (BH Harvey; M Wolmarans)	PharmaCEN: Depression	<u>PharmaCEN</u> Funding, co-authoring
	Education:(PJ Mentz)	Education: Teacher stress	<u>Education</u> Funding, co-authoring
	AUTHeR: (JC Potgieter; F van der Westhuizen, R Louw)	AUTHeR: Psychological distress;oxidative stress, metabonomics, genetic screening	<u>AUTHeR</u> Psychology: data collection, Author/co-author; funding, analyses, Co-author
	PhasRec: (JH de Ridder, M Swanepoel)	PhasRec: Physical activity, Anthropometry	<u>PhasRec</u> Funding, data collection & analyses, Author/Co-author
	Fieldworker: GJ Motlhasedi	Fieldworker	<u>Fieldworker</u> African Culture Expert: Recruitment, feedback

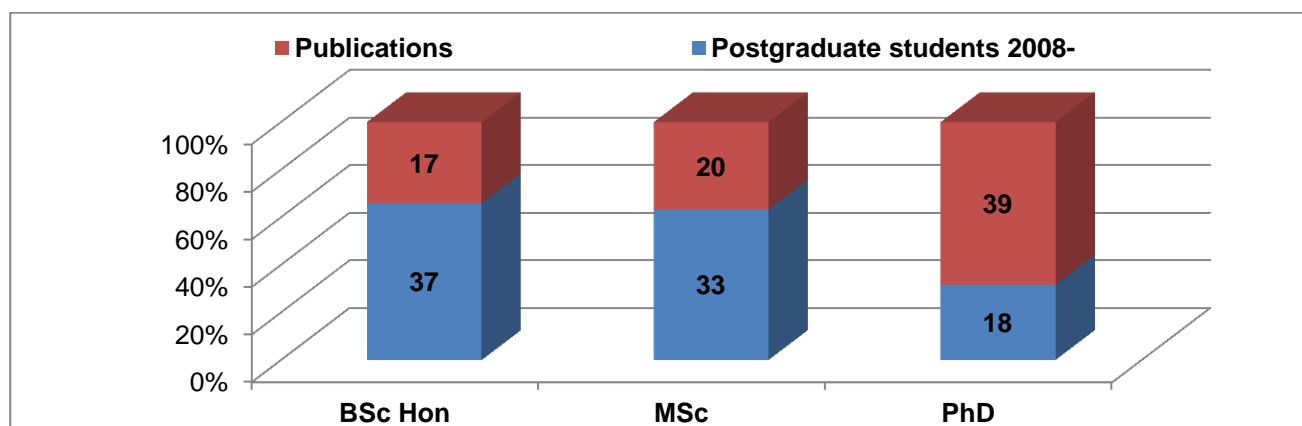
**2009- : SABPA STUDY FUNDING CONTRIBUTIONS****(R14.50 rand ~ 1 euro)****RAND**

<b>1. NWU Multidisciplinary team</b>	<b>4 339 100</b>
<b>2. Second Stream Funding</b>	<b>4 425 198</b>
• SABPA Award Metabolic Syndrome Institute (IDF committee), France	77 000
• Free State University, SA	471 200
• MRC, SA	1 145 000
• North-West Department of Education, SA	199 198
• NRF, SA	405 000
• PA & Alize Malan Trust, SA	17000
• ROCHE Diagnostics SA	1 790 000
• Heart & Stroke Foundation SA (HSFSA): 01/2019	320 000.00
<b>3. *National collaboration</b>	<b>6 622 300</b>
<b>4. *International Collaboration</b>	<b>8 807 316</b>

Publications as First authors, Open access fees; Biochemical analyses (In-kind sponsoring)



SABPA study: DHE (Department Higher Education) subsidy per peer-reviewed publication; funding and in-kind sponsoring.

**C. SABPA POSTGRADUATE and POSTDOC STUDENTS (2008-)**

**POSTDOC student guidance (N=4):**

2008-2009: S Péter (PhD, MD)

2016: F Hampel (PhD, MD)

2014: S Hoebel (PhD)

2015: M Möller-Wolmarans (BPharm, PhD)

**D. PROJECT INTERNATIONAL AWARD**

SABPA Study Design Excellence: Metabolic Syndrome Institute (France), New York, USA, 11th July 2008.

**E. SEMINARS/COLLOQUIUMS/SYMPOSIA**

2010: USA-Symposium (Portland, Oregon, USA): 68<sup>th</sup> American Psychosomatic Society Annual Meeting (Chair & Discussant, Prof JCN de Geus, Netherlands): Stress and health in black South Africans: The SABPA Study. Overview of Biomedical Pathophysiology Relevant to Stress and Disease. 13 March 2010. Plenary addresses [Proff L Malan, JC Potgieter, BH Harvey (South Africa), M Hamer (UK)].

2010: NWU-Colloquium: Prof John Reid (Glasgow, Scotland): Planning of Hypertension Research and Training Blood Pressure clinic, 2 March 2010 (6 CPD points) (N=52).

2011: NWU-Colloquium: Prof M Hamer (London, UK) & Dr M Reimann (Dresden, Germany): Cardiovascular risk and psychosocial stress, 18<sup>th</sup> – 23<sup>rd</sup> March 2011 (2 CPD points) (N=32).

2012: NWU-Colloquium: Prof Dr T Ziemssen (Dresden, Germany) & Dr Ing W Vilser (Jena, Germany): Retinal vessel analyses, 4-11 Sept 2012 (N=75).

2013: NWU-Colloquium: Prof Dr R von Känel (Barmelweid, Switzerland): Coagulation and depression, 18 Sept – 5 Oct 2013 (6 CPD points) (N=42).

2017: NWU-Symposium: Proff Dr M Magnusson & O Melander (Malmo, Sweden), R von Känel (Barmelweid, Switzerland), Dr JA Smuts (South Africa): Brain-Heart Cross talk and Cardiometabolic Health, 23 May 2017 (8 CPD points) (N=120).

**F. INTERNATIONAL WORKING VISITS TO NWU, SOUTH AFRICA**

2009: Mr D Mueller (Germany): Training of Dynamic Retinal vessel analyses.

2010: Prof J Reid (Scotland): Planning of Blood pressure clinic on Campus.

2011: Prof M Hamer (UK) & Dr M Reimann (Germany): SABPA data collection sites, training sessions, planning and discussing data dissemination.

2012: Prof Dr T Ziemssen (Germany) & Dr Ing W Vilser (Germany): Dynamic Retinal vessel data interpretation.

2013: Prof Dr R von Känel (Switzerland): SABPA data collection sites, training sessions, planning and discussing data dissemination.

2017: Proff Drs R von Känel (Switzerland); M Magnusson & O Melander (Sweden): SABPA project data dissemination.

**G. INVITED METANALYSIS/COLLABORATION**

1. Prof G Parati (MD), Istituto Auxologico Italiano and University of Milano-Bicocca, Milano, Italy. International Ambulatory blood pressure Registry: TeleMonitoring of hypertension and cardiovascular risk project: ARTEMIS (2011- )

2. Prof D Vancampfort, Belgium (Psychomotorisch therapist). Depression and cardiometabolic health: The SABPA Study (2012- )

3. Prof ML Molendijk, Leiden University, the Netherlands. Serum BDNF concentrations in depression (by antidepressant treatment) and healthy controls (2013- )

4. The #1 Antibody Resource (Emma Russell-Bennett): Request featuring 2013 paper (Int J Cardiol): von Willebrand factor antibodies webpage:

[http://www.antibodyresource.com/rateproduct/doi/10.1016/j.ijcard.2013.07.191/nico.malan\\_at\\_nwu.ac.za](http://www.antibodyresource.com/rateproduct/doi/10.1016/j.ijcard.2013.07.191/nico.malan_at_nwu.ac.za)

5. Dr M Mathur (MS): The association between perceived psychological stress and telomere length in humans. Quantitative Sciences Unit, Stanford University, USA: <https://med.stanford.edu/profiles/profiles/maya-mathur>
6. Boehringer Ingelheim: Increasing awareness of stroke incidence in South Africa: [carica.combrinck@boehringer-ingelheim.co.za](mailto:carica.combrinck@boehringer-ingelheim.co.za)
7. Prof A Sumner, NIH (USA). Waist circumference consensus guidelines in Africa. Proposed to finalise 2020.

#### **H. PUBLIC ENGAGEMENT (number of contributions in brackets)**

1. National & International papers: Burger (1), Volksblad (1), Herald (4), The Star (1); North-West Independent (2); Beeld (3); HORIZON2020: PanEuropean Networks 2014 & 2015 (2).
2. Radio interviews: SABC Monitor (1); Radio Pretoria (1); OFM (1).
3. SABPA project-stress relaxation (2) and feedback workshops: (2).
4. *Invited Popular Talks* (23)
5. Ongoing community service cardiovascular monitoring for local and referred patients: 24h ABPM & -ECG, 12-lead ECG, IOP, CIMT, plus full report.
6. YouTube video: Are you too B.U.S.Y. Brain-Heart Health: <https://www.youtube.com/watch?v=RW2iwJ05-5o&feature=youtu.be>

#### **I. SABPA POSTER AWARD**

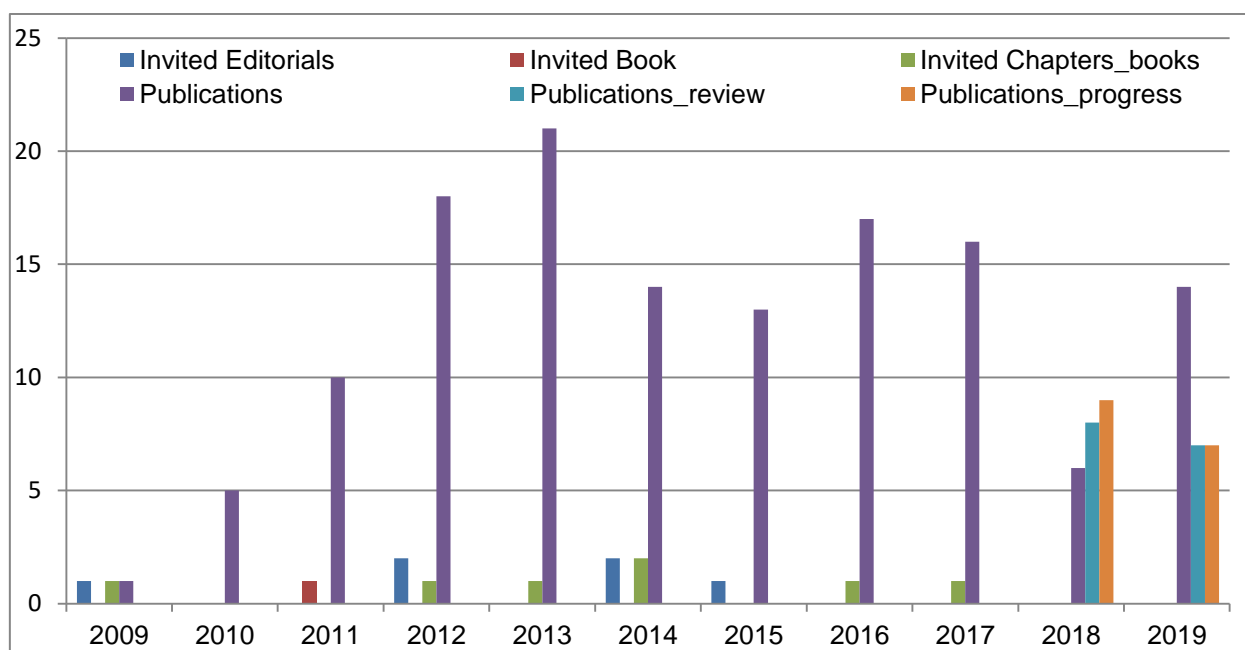
Alberto Ferrari best poster award (Section: Neural Mechanisms) 21st European Society of Hypertension (ESH) meeting, Milan, Italy, 20th June 2011.

#### **J. SABPA RIPPLE EFFECT**

L & NT Malan sparked the conceptualization and implementation of the Hypertension and Training on-campus clinic.

#### **K. SABPA OUTPUT**

<b>PEER REVIEWED PUBLICATIONS: 2009 –</b>	
<b>METRICS SUMMARY</b>	<b>Number</b>
Peer-reviewed Articles	130
Book	1
Peer-reviewed Chapters in Books	7
Editorials (Invited)	4
Popular manuscript/One-pager	2
Commentary (Invited)	2
Peer-reviewed Articles (Impact factors)	IF $\geq$ 8 (n=4)
	IF $\geq$ 7-8 (n=4)
	IF $\geq$ 4-7 (n=21)
	IF 1.02-3.99 (n=101)



**Figure 1: SABPA OUTPUT**

### **GENBANK DATA**

Pretorius M, van der Westhuizen FH, Malan L, Schoonen M; Elson J, Malan L. Mitochondrial DNA sequences of South African population: The SABPA study. Submission date 9 Sept 2017. Genbank Accession: PRJNA403942 ID: 403942. <https://www.ncbi.nlm.nih.gov/bioproject/403942>; <https://www.ncbi.nlm.nih.gov/Traces/study/?acc=SRP117189>; Summary list: <https://www.ncbi.nlm.nih.gov/sra/?term=SRP117189>.

### **POPULAR MANUSCRIPTS/EDITORIALS**

1. *Invited one-pager*: Malan L. The Heart-Brain link. PanEuropean Networks: H1 - Hypertension – HP10053 – HORIZON 2020; 2014:148.
2. *Invited one-pager*: Malan L. Heart-Heart Health. PanEuropean Networks: H2 - Hypertension – HP10117 – HORIZON 2020; 2014:172. <http://www.horizon2020publications.com/H2/#172>
3. *Invited editorial*: Malan L. Coping with urbanization: a cardio-neuro-metabolic risk for black South Africans? MetS Insight, 2008,14(9):4-6.
4. *Invited editorial*: Malan L, Malan NT, Du Plessis A, Wissing MP, Potgieter JC, Seedat YK. The cost of coping: a cardio-neuro-metabolic risk for South Africans? CardioVasc J Afr 2012;21(4). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3721487/>
5. *Invited editorial*: Malan L. Review on the SABPA study. SA Cardiology and Stroke, Jan/Febr Issue 2012:6.
6. *Invited manuscript*: Van Lill AS, Malan L, Schutte R, Steyn HS. Sympathovagal balance, renin responses and structural vascular disease in dipper and non-dipper urban Africans: the SABPA study. SA Cardiology & Stroke 2012;6(1):8-15. [https://scholar.google.com/citations?view\\_op=view\\_citation&hl=ru&user=GxcOYzwAAAAJ&cstart=100&pagesize=100&sortby=title&citation\\_for\\_view=GxcOYzwAAAAJ:J-pR\\_7NvFogC](https://scholar.google.com/citations?view_op=view_citation&hl=ru&user=GxcOYzwAAAAJ&cstart=100&pagesize=100&sortby=title&citation_for_view=GxcOYzwAAAAJ:J-pR_7NvFogC)
7. *Invited editorial*: Malan L, Malan NT. The microcirculation as early prognostic factor in the control of blood pressure. VASA 2015 44(4):245-246. <https://www.ncbi.nlm.nih.gov/pubmed/26314355>

## INVITED COMMENTARY

1. Malan L, Hamer M, de Kock A, Scheepers JD, Malan NT. Stress Appraisal and Risk Markers for Structural Vascular Disease. *Int Atherosclerosis Soc* [Internet]. 2013. <http://www.athero.org/commentaries/comm1133.asp>
2. Schutte AE, Schutte R, Huisman HW, Van Rooyen JM, Fourie CMT, Malan NT, Malan L. Blood pressure variability is significantly associated with ECG left ventricular mass in normotensive Africans: The SABPA study. *SA Cardiol & Stroke Jan/Feb Issue*, 2012.

## BOOKS

1. ***Invited:*** Hoebel S, Malan L, De Ridder HS. Determining cut-off values for neck circumference as a measure of the metabolic syndrome amongst a South African cohort: the SABPA study. VDM Verlag Dr. Müller. 2011. ISBN-13:978-3639365580. 124p. <http://www.amazon.com/association-anthropometric-parameters-diabetes-Africans/dp/3639365585>

## CHAPTERS IN BOOKS

1. ***Invited:*** Malan L, Oosthuizen W, Malan NT, Potgieter JC, Seedat, Y.K. Coping with psychosocial stress reflects in changes in the cardio-endocrine profile of Africans. *In: Psychological Factors and Cardiovascular Disorders* (Ed: Prof Sher, L et al., Columbia University, New York). 2009. ISBN: 978-1-60741-189-5.
2. ***Invited:*** Hoebel S, Malan L, De Ridder HS. The association of anthropometric parameters with Type 2 Diabetes and microalbuminuria in black African males and females: the SABPA Study. Germany, VDM Publishing House. 2012. ISBN: 978-3-639-36558-0.
3. ***Invited:*** Willers M, Potgieter JC, Khumalo IP, Malan L, Mentz PJ, Ellis S. Coping and Cultural Context: Implications for Psychological Health and Well-Being, pp251-272. *In: Well-Being Research in South Africa Series: Cross-Cultural Advancements in Positive Psychology, Vol. 4(XIII)*. (Ed: Wissing MP). 2013. ISBN 978-94-007-6368-5. 639p. <http://www.springer.com/gp/book/9789400763678>
4. ***Invited:*** Van Staden R, Malan L, Van Rooyen JM. Cardiomyopathy vulnerability in an urban African male cohort: the SABPA Study. *In: Urbanization: Global Trends, Role of Climate Change and effects on Biodiversity*. (Ed: Kauffman HJ), Nova Science Publishers. New York. 2014. ISBN: 978-1-63117-063-8.
5. ***Invited:*** Malan L, Oosthuizen W, JD Scheepers, Möller-Wolmarans M, Malan NT. Coping and autonomic dysfunction *act* in tandem with alcohol-related sub-clinical atherosclerosis: The SABPA Study. *In: Substance Abuse: Prevalence, Genetic and Environmental Risk Factors and Prevention* (Ed: Raines J), Nova Science Publishers. New York. 2014. ISBN: 978-1-63321-950-2. Pp107-128. [https://www.novapublishers.com/catalog/product\\_info.php?products\\_id=52183](https://www.novapublishers.com/catalog/product_info.php?products_id=52183)
6. ***Invited:*** Malan NT, von Känel R, Smith W, Lambert GW, Vilser W, Eikelis N, Reimann M, **Malan L**. A challenged sympathetic system, is associated with retinal vascular calibre in a Black male cohort: the SABPA study. *In: Microcirculation in Health and Disease*. (Ed H Lenasi), InTech. Janeza Trdine, Rijeka, Croatia, 2016. ISBN 978-953-51-4801-2. Pp135-153. <http://www.intechopen.com/articles/show/title/a-challenged-sympathetic-system-is-associated-with-retinal-vascular-calibre-in-a-black-male-cohort-t>
7. ***Invited:*** **Malan L**, Malan NT. Emotional Stress as a Risk for Hypertension in Sub-Saharan Africans: Are We Ignoring the Odds? (Ed Md. S Islam). *In: Hypertension: from basic research to clinical practice; Adv Exp Med Biol - Advances in Internal Medicine 2017*;2:497–510. DOI 10.1007/5584\_2016\_37. ISBN 978-3-319-44250-1. [http://link.springer.com/chapter/10.1007/5584\\_2016\\_37](http://link.springer.com/chapter/10.1007/5584_2016_37)

**PEER-REVIEWED PUBLICATIONS****2009**

1. Schutte R, Schutte AE, Huisman HW, van Rooyen JM, Malan NT, Péter S, Fourie CMT, van der Westhuizen, Louw R, Botha CA, Malan L. Blood glutathione and sub-clinical atherosclerosis in African men: the SABPA Study. *Am J Hypertens* 2009;22:1154-1159. <https://www.ncbi.nlm.nih.gov/pubmed/19730419>

**2010**

2. Hamer M & Malan L. Psychophysiological risk markers of cardiovascular disease. In: *Psychophysiological Biomarkers of Health. Special Edition: Neurosc Biobehav Rev.* 2010;35:76-83. <https://www.ncbi.nlm.nih.gov/pubmed/19909773>
3. Schutte R, Huisman HW, Schutte AE, Malan NT, van Rooyen JM, Fourie CMT, Malan L. Serum calcium revisited. Associations with 24-hour ambulatory blood pressure and cardiovascular reactivity in African men: the SABPA Study. *Hypertens Res* 2010;33:688-694. <https://www.ncbi.nlm.nih.gov/pubmed/20448635>
4. Mashele N, JM van Rooyen, L Malan, JC Potgieter. Cardiovascular function and psychological distress in urbanised black South Africans: the SABPA Study. *Cardiovasc J Afr* 2010;21(4):206-11. <https://www.ncbi.nlm.nih.gov/pubmed/20838719>
5. Hoebel S, de Ridder, JH, Malan L. The association between anthropometric, metabolic syndrome and microalbuminuria in black Africans: the SABPA Study. *Cardiovasc J Afr.* 2010;21(3):148-152. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3734740>
6. Du Plessis A, Malan L, Malan NT. Coping and the metabolic syndrome in urban black South African men: the SABPA study. *Cardiovasc J Afr.* 2010;21(5):268-73. <https://www.ncbi.nlm.nih.gov/pubmed/20972515>. **Andries-Brink Kaye Award (best article in Cardiovasc J Afr 2010)**

**2011**

7. M Hamer, L Malan, NT Malan, AE Schutte, HW Huisman, JM van Rooyen, R Schutte, CMT Fourie, Seedat YK . Plasma renin responses to mental stress and carotid intima media thickness in black Africans: the SABPA Study. *J Hum Hypertens.* 2011;25:437-443. <https://www.ncbi.nlm.nih.gov/pubmed/20686501>
8. Hamer M, Malan L, Malan NT, Schutte AE, Huisman HW, van Rooyen JM, Schutte R, Fourie CMT, Seedat YK. Objectively assessed health behaviors and sub-clinical atherosclerosis in black and white Africans: the SABPA Study. *Atherosclerosis* 2011;215:237-242. [https://www.researchgate.net/publication/49731096\\_Conventional\\_and\\_behavioral\\_risk\\_factors\\_explain\\_differences\\_in\\_sub-clinical\\_vascular\\_disease\\_between\\_Black\\_and\\_Caucasian\\_South\\_Africans\\_The\\_SABPA\\_Study](https://www.researchgate.net/publication/49731096_Conventional_and_behavioral_risk_factors_explain_differences_in_sub-clinical_vascular_disease_between_Black_and_Caucasian_South_Africans_The_SABPA_Study)
9. Schutte AE, Schutte R, Huisman HW, Van Rooyen JM, Fourie CMT, Malan NT, Malan L. Blood Pressure variability is significantly associated with ECG left ventricular mass in normotensive Africans: the SABPA Study. *Hypertens Res.*2011;34:1127-1134. <https://www.ncbi.nlm.nih.gov/pubmed/21796132>
10. Hamer M, Malan NT, Harvey BH, Malan L. Depressive symptoms and sub-clinical atherosclerosis in Africans: role of metabolic syndrome, inflammation and sympathoadrenal function: the SABPA study. *Phys & Behav.* 2011;104:744-8. <https://www.ncbi.nlm.nih.gov/pubmed/21208616>
11. Lammertyn L, Schutte AE, Schutte R. Blood glucose and nocturnal blood pressure in African and Caucasian men: The SABPA study. *Diabetes Res Clin Pract.* 2011;93(2):235-42. <https://www.ncbi.nlm.nih.gov/pubmed/21632140>
12. Lammertyn L, Schutte R, Schutte AE, Huisman HW, van Rooyen JM, Malan NT, Fourie CMT, Malan L. Associations of cholesterol and glucose with cardiovascular dysfunction in



- black Africans: the SABPA Study. *J Clin Exp Hypertens* 2011;33(3):159-166. <https://www.ncbi.nlm.nih.gov/pubmed/21513480>
13. Hoebel S, Malan L, De Ridder JH. Differences in MetS marker prevalence between Black and Caucasian teachers from the North West province, South Africa: The SABPA Study. the SABPA Study. *J Endocrin Met Diab SA*. 2011;16:49-56. <http://www.jemdsa.co.za/index.php/JEMDSA/article/viewFile/212/263>
  14. Van Lill AS, L Malan, JM van Rooyen, Ziemssen T, Reimann M. Baroreceptor sensitivity and left ventricular hypertrophy in urban South African men: The SABPA Study. *Blood Pressure* 2011;20:355-61. <https://www.ncbi.nlm.nih.gov/pubmed/21545353> [http://www.saheart.org/uploads/files/SAHJ\\_spring\\_2012\\_newsletter.pdf](http://www.saheart.org/uploads/files/SAHJ_spring_2012_newsletter.pdf)
  15. Prinsloo J, Malan L, de Ridder JH, Potgieter JC, Steyn HS. Determining the waist circumference cut off which best predicts the Metabolic Syndrome components in urban Africans: The SABPA study. The SABPA study. *J Exp Clin Endocrin & Diab* 2011;119:1-5. <https://www.ncbi.nlm.nih.gov/pubmed/22068551>
  16. Schutte R, Schutte AE, Huisman HW, Glyn MCP, van Rooyen JM, Malan NT, Fourie CMT, Malan L. Ambulatory blood pressure, arterial stiffness and low-grade albuminuria in African and Caucasian men: the SABPA study. *Hypertens Res* 2011;34:862-868. <https://www.ncbi.nlm.nih.gov/pubmed/21525947>
- 2012**
17. Hamer M, Frasure-Smith N, Lespérance F, Harvey BH, Malan NT, Malan L. Depressive symptoms and 24h blood pressure in Africans: The SABPA study. *Int J Hypertens* 2012. PMID: 22028954. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3199098>.
  18. Huisman HW, Schutte R, Schutte AE, Van Rooyen JM, Malan NT, Fourie CMT, Glyn MC, Malan L. The usefulness of Y-glutamyltransferase as a marker of cardiovascular function in Africans and Caucasians: The SABPA study. *Clin Exp Hypertens* 2012;34(1):8-16. <https://www.ncbi.nlm.nih.gov/pubmed/22148881>
  19. Reimann M, Ziemssen T, Rüdiger H, Schlaich MP, Malan L, Malan NT, Hamer M. Spectral analyses and autonomic dysfunction in a African cohort: the SABPA Study. *Psychophysiology* 2012;49(4):454-461. <https://www.ncbi.nlm.nih.gov/pubmed/22176778>
  20. Malan L, Hamer M, Schlaich MP, Lambert GW, Ziemssen T, Reimann M, Van Rooyen JM, Schutte R, Schutte AE, Huisman HW, Fourie CMT, Harvey BH, De Geus JCN, Seedat YK, Malan NT. Facilitated defensive coping, silent ischemia and ECG left ventricular hypertrophy: the SABPA Study. *J Hypertens* 2012;30(3):543-550. <https://www.ncbi.nlm.nih.gov/pubmed/22245987>
  21. Hamer M, Malan L. Sympathetic nervous activity and metabolic syndrome in Africans: the SABPA Study. *Stress* 2012;15(5):562–568. <https://www.ncbi.nlm.nih.gov/pubmed/22150400>
  22. Malan NT, Hamer M, Lambert, GW, Schutte AE, Huisman HW, van Rooyen JM, Mels CM, Smith W, Fourie CMT, Schutte R, Kruger R, Malan L. Sex hormones associated with subclinical kidney damage and atherosclerosis in South African men: the SABPA study. *J Hypertens* 2012;30(12):2387-2394. <https://www.ncbi.nlm.nih.gov/pubmed/23111623>
  23. Reimann M, Hamer M, Schlaich MP, Malan NT, Ruediger H, Ziemssen T, Malan L. Greater cardiovascular reactivity to a cold stimulus is due to higher cold pain perception in black Africans: the Sympathetic Activity and Ambulatory Blood Pressure in Africans (SABPA) study. *J Hyper* 2012;30(12):2416-2424. <https://www.ncbi.nlm.nih.gov/pubmed/23111622>
  24. Meyburgh D, Malan L, van Rooyen JM, Potgieter JC. Cardiovascular, cortisol and coping responses in urbanised Africans: The SAPBA Study. *Cardiovasc J Afr* 2012;23(1):28-33. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3721911>
  25. Kruger R, Schutte R, Huisman HW, Van Rooyen JM, Malan NT, Fourie CMT, Louw R, Van der Westhuizen F, Van Deventer CA, Malan L, Schutte AE. Associations between reactive
-

- oxygen species, blood pressure and arterial stiffness in black South Africans: the SABPA Study. *J Hum Hypertens* 2012;26:91-97. <https://www.ncbi.nlm.nih.gov/pubmed/21270837>
26. Griffiths ME, Malan L, van Rooyen JM, Vorster BC, Koekemoer G. Silent ischemia is associated with sub-clinical atherosclerosis in African males: the SABPA study. *J Clin Exp Hypertens* 2012;34(5):363-369. <https://www.ncbi.nlm.nih.gov/pubmed/22686450>
  27. De Kock A, Malan L, Potgieter JC, Steenekamp W, Malan NT. Metabolic syndrome indicators and target organ damage in urban active coping African and Caucasian men: The SABPA Study. *Exp Clin Endocrin & Diab.* 2012;120(5):282-287. <https://www.ncbi.nlm.nih.gov/pubmed/22231925>
  28. Venter HL, Malan L, Van Rooyen JM. Are 3-methoxy-4-hydroxyphenylglycol (MHPG), norepinephrine metabolite, and ambulatory blood pressure coping responses of Africans associated with a marker of sub-clinical atherosclerosis? The SABPA study. *SA Cardiol & Stroke* 2012;4(5):8-14.
  29. Hoebel S, Malan L, De Ridder H. Determining cut-off values for neck circumference as a measure of the metabolic syndrome amongst a South African cohort: the SABPA Study. *Endocrine* 2012;42:335-342. <https://www.ncbi.nlm.nih.gov/pubmed/22407493>
  30. De Kock A, Malan L, Hamer M, Malan NT. Defensive coping and subclinical vascular disease risk - associations with autonomic exhaustion in Africans and Caucasians: the SABPA study. *Atherosclerosis* 2012;225:438-443. <https://www.ncbi.nlm.nih.gov/pubmed/23044096>
  31. Botha J, Malan L, Potgieter JC, Steyn HS, De Ridder JH. Association of waist circumference with perception of own health in a group of urban African males and females: the Sympathetic Activity and Ambulatory Blood Pressure in Africans (SABPA) study. *J Endocrin Met Diab SA* 2012;17(2):106.
  32. Hamer M, Frasure-Smith N, Lespérance F, Harvey BH, Malan NT, Malan L. Depressive symptoms and 24h blood pressure in Africans: The SABPA study. *Int J Hypertens* 2012;426803:1-6. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3199098>
  33. Pieterse C, Schutte AE, Mels C, Smith W, Schutte R. Carotid cross-sectional wall area is significantly associated with serum leptin levels, independent of body mass index: the SABPA study. *Hypertens Res* 2012;35:1185-1192. <https://www.ncbi.nlm.nih.gov/pubmed/22932876>
- 2013**
34. Huisman HW, Schutte AE, Schutte R, Van Rooyen JM, Fourie CMT, Mels CM, Smith W, Malan NT, Malan L. Exploring the link between cardiovascular reactivity and end-organ damage in African and Caucasian men: the SABPA study. *Am J Hypertens* 2013;26(1):68-75. <https://www.ncbi.nlm.nih.gov/pubmed/23382329>
  35. Harvey BH, Van der Westhuizen FH, Hamer M, Louw R, Malan L. Metabolic and glutathione redox markers associated with brain-derived neurotrophic factor in depressed African men and women. Evidence for counter-regulation? *Neuropsychobiology* 2013;67:33-40 <https://www.ncbi.nlm.nih.gov/pubmed/23221974>
  36. Malan NT, Hamer M, Schutte AE, Huisman HW, van Rooyen JM, Schutte R, Mels CM, Steyn HS, Smith W, Fourie CMT, Glynn M, Malan L. Low Testosterone and Hyperkinetic Blood Pressure Responses in a Cohort of South African Men: The SABPA Study. *Clin Exp Hypertens* 2013;35(3):228-35. <https://www.ncbi.nlm.nih.gov/pubmed/23953632>  
[http://www.mdlinx.com/art\\_author\\_comment.cfm](http://www.mdlinx.com/art_author_comment.cfm)
  37. Mels CM, Schutte AE, Schutte R, Huisman HW, Van Rooyen JM, Fourie CMT, Smith W, Malan NT, Malan L. L-carnitine and long-chain acylcarnitines are positively correlated with ambulatory blood pressure in humans: the SABPA study. *Lipids* 2013;48(1):63-73. <https://www.ncbi.nlm.nih.gov/pubmed/230998893>
-

38. Malan L, Hamer M, Schlaich MP, Lambert GW, Ziemssen T, Reimann M, Steyn HS, Schutte R, Smith W, Van Rooyen JM, Fourie CMT, Malan NT. Defensive active coping facilitates chronic hyperglycemia and endothelial dysfunction in African men: the SABPA study. *Int J Cardiol* 2013;168:999-1005. <https://www.ncbi.nlm.nih.gov/pubmed/23168003>
  39. Malan L, Hamer M, Schlaich MP, Lambert GW, Ziemssen T, Reimann M, Frasure-Smith N, Amirkhan JM, Schutte R, Van Rooyen JM, Mels C, Fourie CMT, Uys AS, Malan NT. Defensive coping facilitates higher blood pressure and early sub-clinical structural vascular disease via alterations in heart rate variability: the SABPA study. *Atherosclerosis* 2013;227:391-397. <https://www.ncbi.nlm.nih.gov/pubmed/23380269>
  40. Schutte R, Huisman HW, Malan L, van Rooyen JM, Smith W, Glyn MCP, Mels CMC, Fourie CMT, Malan NT, Schutte AE. Serum alkaline phosphatase and measures of arterial structure and function in hypertensive African men: the SABPA study. *Int J Cardiology* 2013;167:1995-2001. <https://www.ncbi.nlm.nih.gov/pubmed/22656046>
  41. Von Kaenel R, Hamer M, Malan NT, Scheepers JD, Meiring M, Malan L. Procoagulant reactivity to laboratory acute mental stress in Africans and Caucasians, and its relation to depressive symptoms: The SABPA Study. *Thromb Haem* 2013;110(5):977-86. <https://www.ncbi.nlm.nih.gov/pubmed/23965941>
  42. Malan NT, von Känel R, Schutte AE, Huisman H, Schutte R, Mels CM, Kruger R, Meiring M, Smith W, van Rooyen JM, Malan L. Testosterone and acute stress are associated with fibrinogen and von Willebrand factor in African men: the SABPA study. *Int J Cardiol* 2013;168:4638-4642. <https://www.ncbi.nlm.nih.gov/pubmed/23953632>; [http://www.mdlinx.com/art\\_author\\_comment.cfm](http://www.mdlinx.com/art_author_comment.cfm)
  43. Reimann M, Hamer M, Malan NT, Schlaich MP, Lambert GW, Ziemssen T, R Böger, Malan L. Effects of acute and chronic stress on the L-arginine nitric oxide pathway in black and white South Africans: the SABPA study. *Psychosom Med* 2013;75(8):751-758. <https://www.ncbi.nlm.nih.gov/pubmed/23960161>
  44. Mels CM, Schutte AE, Schutte R, Huisman HW, Smith W, Fourie CMT, Kruger R, Van Rooyen JM, Malan NT, Malan L. The link between vascular deterioration and branched chain amino acids in a population with high glycated haemoglobin: The SABPA study. *Amino Acids* 2013;45(6):1405-1413. <https://www.ncbi.nlm.nih.gov/pubmed/24178767>
  45. Schultz A, Schutte AE, Schutte R. Double product and end-organ damage in African and Caucasian men: the SABPA study. *Int J Cardiol*, 2013;167:792-797. <https://www.ncbi.nlm.nih.gov/labs/articles/22465346/>
  46. Mashele N, Malan L, Van Rooyen JM, Potgieter JC, Harvey, BH, Hamer M. Cardio-metabolic dysfunction is associated with depression in black African men and women: the SABPA Study. *J Clin & Exp Hypertens* 2013;35(3):213-219. <https://www.ncbi.nlm.nih.gov/pubmed/22954159>; <http://www.mdlinx.com/psychiatry/news-article.cfm/4553390>
  47. Van Deventer C, Van der Westhuizen FH, Louw R, Koekemoer G, Vorster CB, Malan L. Tyrosine hydroxylase polymorphism and hypertension in a selected South-African population: the SABPA Study. *Clin Exp Hypertension* 2013;35(8):614-619. <https://www.ncbi.nlm.nih.gov/pubmed/23489065>
  48. Uys AS, Malan L, Van Rooyen JM, Steyn HS, Ziemssen T, Reimann M. Nocturnal blood pressure, 3-methoxy-4-hydroxyphenylglycol and carotid intima-media thickness: the SABPA study. *Heart, Lung and Circulation* 2013;22(11):917-923. <https://www.ncbi.nlm.nih.gov/pubmed/23333076>
  49. Van der Walt C, Malan L, Uys AS, Malan NT. Low grade inflammation and ECG left ventricular hypertrophy in urban African males: the SABPA study. *Heart, Lung and Circulation* 2013;22(11):924-929. <https://www.ncbi.nlm.nih.gov/pubmed/23711691>
-

50. Hoebel S, De Ridder JH, Malan L. Determining ethnic-, gender-, and age-specific waist circumference cut-off points to predict the metabolic syndrome: the SABPA study. *Journal Endocrinology, Metabolism, Diabetes SA* 2013;18(2):88-96. <http://www.tandfonline.com/doi/pdf/10.1080/22201009.2013.10872311>
51. Botha J, De Ridder H, Potgieter JC, HS Steyn, Malan L. Structural vascular disease in Africans: Performance of ethnic-specific waist circumference cut points using Logistic Regression and Neural Network analyses: the SABPA study. *Exp Clin Endo Diab* 2013;121:441-447. <https://www.ncbi.nlm.nih.gov/pubmed/23934678>; [http://doctor.diabetovalens.com/lat\\_news/highlightnews.asp?newsid=13076](http://doctor.diabetovalens.com/lat_news/highlightnews.asp?newsid=13076)
52. Vosloo M, Potgieter JC, Temane M, Ellis S, Khumalo T. Validation of the Short Self-Regulation Questionnaire in a group of Black teachers: The SABPA study. *SA J Indus Psych* 2013;39(1). <http://www.sajip.co.za/index.php/sajip/article/view/1157/1486>

## 2014

53. Van Rooyen JM, Schutte AE, Huisman HW, Schutte R, Fourie CMT, Malan NT, Malan L. End-organ damage in urbanized Africans with low plasma renin levels: the SABPA study. *J Clin Exp Hypertens* 2014;36(1):70-75. <https://www.ncbi.nlm.nih.gov/pubmed/23786427>
54. Pieterse C, Schutte R, Schutte AE. Autonomic activity and leptin in Africans and whites: the SABPA study. *J Hypertens* 2014;32:826-833. <https://www.ncbi.nlm.nih.gov/pubmed/24509121>
55. Malan NT, Stalder T, Schlaich MP, Lambert GW, Hamer M, Schutte AE, Huisman HW, Schutte R, Smith W, Mels CM, Van Rooyen JM, Malan L. Chronic distress and acute vascular stress responses associated with ambulatory blood pressure in low testosterone African men: The SABPA study. *J Hum Hypertens* 2014;28:393-398. <https://www.ncbi.nlm.nih.gov/pubmed/24284381>; [http://www.nature.com/jhh/journal/v28/n6/full/jhh2013124a.html?WT.feed\\_name=subjects\\_steroid-hormones](http://www.nature.com/jhh/journal/v28/n6/full/jhh2013124a.html?WT.feed_name=subjects_steroid-hormones)
56. Mashele N, Malan L, Van Rooyen JM, Harvey BH, Potgieter JC, Hamer M. Blunted neuro-endocrine responses linking depressive symptoms and ECG left ventricular hypertrophy in black Africans: the SABPA study. *Cardiovasc Endocrin* 2014;3(2):59-65. <http://journals.lww.com/cardiovascularendocrinology/Pages/toc.aspx?year=2014&issue=06000>
57. Lammertyn L, Schutte AE, Pieters M, Schutte R. D-dimer relates positively with increased blood pressure in black South Africans: The SABPA study. *Thromb Res* 2014;133:1152-1157. <http://europepmc.org/abstract/med/24713108>
58. Uys AS, Malan L, Van Rooyen JM, Steyn HS, Reimann M, Ziemssen T. Attenuated NOx responses and myocardial ischemia, a possible risk for structural vascular disease in African men: the SABPA study. *J Hum Hypertens* 2014;28:438-443. <https://www.ncbi.nlm.nih.gov/pubmed/24401953>
59. Schutte AE, Schutte R, Smith W, Huisman HW, Mels CMC, Malan L, Fourie CMT, Malan NT, van Rooyen JM, Kruger R, Conti E. Compromised bioavailable IGF-1 of African men relates favourably to ambulatory blood pressure: The SABPA study. *Atherosclerosis* 2014;233:139-44. <https://www.ncbi.nlm.nih.gov/pubmed/24529134>
60. Schutte AE, Volpe M, Tocci G, Conti E. Revisiting the relationship between blood pressure and insulin-like growth factor-1. *Hypertension* 2014;63(5):1070-7. <https://www.ncbi.nlm.nih.gov/pubmed/24566078>
61. Joosten L, Malan L, Uys AS, Alkerwi A, Malan NT. Acute cardiometabolic responses facilitating a state of chronic hyperglycemia and renal impairment: the SABPA study. *Cardiovasc Endocrin* 2014;3(3):98-106. [http://journals.lww.com/cardiovascularendocrinology/Abstract/2014/09000/Acute\\_cardiometabolic\\_responses\\_facilitating\\_a.4.aspx](http://journals.lww.com/cardiovascularendocrinology/Abstract/2014/09000/Acute_cardiometabolic_responses_facilitating_a.4.aspx)

62. Mels CM, Schutte AE, Schutte R, Pretorius PJ, Smith W, Huisman HW, van der Westhuizen FH, Fourie CM, Kruger R, Louw R, Malan NT, Malan L. 8-Oxo-7,8-dihydro-2'-deoxyguanosine, reactive oxygen species and ambulatory blood pressure in African and Caucasian men: The SABPA study. *Free Radic Res* 2014;8(6):1-23. <https://www.ncbi.nlm.nih.gov/pubmed/25096646>
63. Hoebel S, Malan L, Botha J, Swanepoel M. Optimizing waist circumference cut-points for the metabolic syndrome and its components in a South African cohort at 3 year follow-up: the SABPA prospective cohort. *Endocrine* 2014;67(1):2013. <https://www.ncbi.nlm.nih.gov/pubmed/25564690>
64. Hoebel S, Swanepoel M, Malan L. Examining waist and neck circumferences as screening tools for metabolic syndrome in a sub-Saharan Caucasian cohort at three year follow-up: the SABPA prospective cohort. *J Endocrin Met Diab SA* 2014;19(3):106-112. <http://www.ajol.info/index.php/jemdsa/article/viewFile/110753/100505>
65. von Känel R, Hamer M, Van Der Westhuizen FH, Malan NT, Malan L. Leukocyte telomere length and hemostatic factors in a South African cohort: The SABPA Study. *Thromb Hemostasis* 2014;12:1975–1985. <https://www.ncbi.nlm.nih.gov/pubmed/25244563>
66. Boshoff N, Potgieter JC, Van Rensburg E, Ellis S. Occupational Stress and Mental Well-Being in a cohort of Black South African Teachers: The SABPA study, *J Psychology in Africa* 2014;24(2):125-130. <http://www.tandfonline.com/doi/abs/10.1080/14330237.2014.903069?src=recsys&journalCode=rpia20>

## 2015

67. von Känel R, Hamer M, Malan NT, Malan L. Comparison of telomere length in Black and White teachers from South Africa: The SABPA study. *Psychosom Med* 2015;77:26Y32. <https://www.ncbi.nlm.nih.gov/pubmed/25244563>
  68. Hamer M, Von Känel R, Reimann, Malan NT, Schutte AE, Huisman HW, Malan L. Progression of cardiovascular risk factors in Black Africans: 3 year follow up of the SABPA cohort study. *Atherosclerosis* 2015;238(1):52-4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4726657>
  69. Smith AJ, Malan L, Uys AS, Ziemssen T, Harvey BH, Malan NT. Attenuated Brain-derived Neurotrophic Factor and hypertrophic remodelling: The SABPA Study. *J Hum Hypertens* 2015;29(1):33-9. <https://www.ncbi.nlm.nih.gov/pubmed/24898921>
  70. Schutte R, Huisman HW, Ware LJ, Mels CMC, Botha S, Kruger R, Smith W, Malan NT, Malan L, van Rooyen JM, Fourie CMT, Schutte AE. Cornell product relates to albuminuria in hypertensive black adults independently of blood pressure: the SABPA study. *J Am Soc Hypertens* 2015;9(2):115–122. <https://www.ncbi.nlm.nih.gov/pubmed/25670251>
  71. De Kock A, Malan L, Hamer M, Cockeran M, Malan NT. Defensive coping and renovascular disease risk – Adrenal fatigue in a cohort of Africans and Caucasians: the SABPA study. *Phys Behav* 2015;147(8):213-219. <https://www.ncbi.nlm.nih.gov/pubmed/25911265>; <http://nauresmedicine.com.au/category/blog/hormones/>
  72. Scheepers JD, Malan L, De Kock A, Malan NT, Cockeran M, Von Känel R. Ethnic disparity in defensive coping endothelial responses: The SABPA study. *Phys Behav* 2015;147(8):306-312. <https://www.ncbi.nlm.nih.gov/pubmed/25956802>
  73. Malan NT, Smith W, von Känel R, Hamer M, Schutte AE, Malan L. Low serum testosterone and increased diastolic ocular perfusion pressure: a risk for retinal microvasculature: The SABPA study. *VASA* 2015;44:435–443. <https://www.ncbi.nlm.nih.gov/pubmed/26515220>
  74. Lammertyn L, Mels CMC, Pieters M, Schutte AE, Schutte R. Ethnic-specific relationships between haemostatic and oxidative stress markers in black and white South Africans: The SABPA study. *Clin Exp Hypertens* 2015;37(6):511-517.
-

<http://www.tandfonline.com/doi/abs/10.3109/10641963.2015.1013123?src=recsys&journalCode=iceh20>

75. Koegelenberg ASE, Schutte R, Smith W, Schutte AE. Bioavailable IGF-1 and its relationship with endothelial damage in a bi-ethnic population: The SABPA study. *Thromb Res* 2015;136:1007-1012. <https://www.ncbi.nlm.nih.gov/labs/articles/26359321/>
76. Pieterse C, Schutte R, Schutte AE. Leptin links with plasminogen activator inhibitor-1 in human obesity: the SABPA study. *Hypertens Res* 2015;38:507-512. <https://www.nature.com/hr/journal/v38/n7/full/hr201528a.html>
77. Malan L, Hamer M, Frasure-Smith N, Steyn HS, Malan NT. COHORT PROFILE: Sympathetic activity and Ambulatory Blood Pressure in Africans (SABPA) Prospective Cohort Study. *Int J Epidemiol* 2015;44(6): 1814-1822. [https://www.google.co.za/?gfe\\_rd=cr&ei=u\\_UqWPHKHO6o8weG7p6gCQ#q=PMC4689997](https://www.google.co.za/?gfe_rd=cr&ei=u_UqWPHKHO6o8weG7p6gCQ#q=PMC4689997) <http://www.mdlinx.com/cardiology/medical-news-article/2014/11/17/blood-pressure/5676233>
78. Van Deventer CA, Lindeque JZ, Jansen van Rensburg PJ, Malan L, Van der Westhuizen FH, Louw R. Use of metabolomics to elucidate the metabolic perturbation associated with hypertension in a black South African male cohort: The SABPA Study. *J Am Soc Hypertens* 2015;9(2):104-14. <https://www.ncbi.nlm.nih.gov/pubmed/25577962>

## 2016

79. von Känel R, Malan NT, Hamer M, Reimann M, Schlaich MP, Lambert GW, Malan L. Three-year changes of prothrombotic factors in a cohort of South African teachers with a high clinical suspicion of obstructive sleep apnea. *Thromb Haemost* 2016;115(1):63-72. <https://www.ncbi.nlm.nih.gov/pubmed/26335891>
80. Gafane L, Schutte R, Van Rooyen JM, Schutte AE. Plasma renin and cardiovascular responses to the cold pressor test differ in black and white populations: The SABPA study. *J Hum Hypertens* 2016;30(5):346-51. <https://www.nature.com/jhh/journal/v30/n5/pdf/jhh201588a.pdf>
81. Mels CMC, Huisman HW, Smith W, Schutte R, Schwedhelm E, Atzler D, Böger RH, Ware LJ, Schutte AE. The relationship of nitric oxide synthesis capacity, oxidative stress and albumin-to-creatinine ratio in black and white men: The SABPA study. *J Am Aging Assoc*. 2016;38(9):1-11. <https://www.ncbi.nlm.nih.gov/pubmed/26767376>
82. Mels CMC, Schwedhelm E, Atzler D, Böger RH, Schutte AE. Nitric oxide synthesis capacity, ambulatory blood pressure and end organ damage in a black and white population: The SABPA study. *Amino Acids* 2016;48(3):801-810. <https://www.ncbi.nlm.nih.gov/pubmed/26573539>
85. Scheepers JD, Malan L, von Känel R, De Kock A, Cockeran M, Malan NT. Hypercoagulation and hyperkinetic blood pressure indicative of physiological loss-of-control despite behavioural control in Africans: The SABPA study. *Blood pressure* 2016;25(4):219-27. <https://www.ncbi.nlm.nih.gov/pubmed/26806201>
86. Jansen van Vuren E, Malan L, Cockeran M, Scheepers JD, Oosthuizen W, Malan NT. Fibrosis and reduced perfusion - a cardiovascular disease risk: The SABPA study. *Clin Exp Hypertens* 2016;38(5):482-8. <https://www.ncbi.nlm.nih.gov/pubmed/27380493>
87. Oosthuizen W, Malan L, Scheepers JD, Cockeran M, Malan NT. The defense response and alcohol intake: A coronary artery disease risk? The SABPA Study. *J Clin Exp Hypertens* 2016;38(6):526-32. <https://www.ncbi.nlm.nih.gov/pubmed/27399032>
88. Malan L, Hamer M, von Känel R, Schlaich MP, Reimann M, Frasure-Smith-N, Lambert GW, Vilser W, Harvey B, Steyn HS, Malan NT. Chronic depression symptoms and salivary NOx associated with retinal vascular dysregulation: the SABPA study. *Nitric Oxide - Biology and Chemistry* 2016;(55-56):10-17. <https://www.ncbi.nlm.nih.gov/pubmed/26945470>; <http://www.strokecenter.org/chronic-depression-symptoms-and-salivary-nox-are-associated-with-retinal-vascular-dysregulation-the-sabpa-study/>

89. Mels CMC, van Zyl C, Huisman HW. Cardiovascular function is not associated with creatine kinase activity in a black African population: The SABPA study. *BMC Cardiovasc Dis* 2016;16:136. <https://bmccardiovascdisord.biomedcentral.com/articles/10.1186/s12872-016-0315-2>
  90. Van Zyl C, Huisman HW, Mels CMC. Antioxidant enzyme activity is associated with blood pressure and carotid intima media thickness in black men and women: the SABPA study. *Atherosclerosis* 2016;248:91-96. <https://www.ncbi.nlm.nih.gov/pubmed/26990726>
  91. Pieterse C, Schutte R, Schutte AE. Leptin relates to prolonged cardiovascular recovery after acute stress in Africans: the SABPA study. *Nutr Metab Cardiovasc Dis* 2016;26:45-52. <https://www.ncbi.nlm.nih.gov/pubmed/26645796>
  92. Van Vuren EJ, Malan L, Von Känel R; Cockeran M, Malan NT Systemic inflammation, cardiac troponin and arterial tone associated with cardiac remodelling: The SABPA study. *Hypertens Res* 2016;39(9):648-53. <https://www.ncbi.nlm.nih.gov/pubmed/27169396>
  93. Smith W, Malan NT, Schutte AE, Schutte R, Mels CMC, Vilser W, Malan L. Retinal vessel calibre and its relationship with nocturnal blood pressure dipping status: the SABPA study. *Hypertens Res*, 2016; 39(10): 730-736. <https://www.ncbi.nlm.nih.gov/pubmed/27194573>
  94. Mokhaneli MC, Fourie CMT, Botha S, Mels CMC. The association of oxidative stress with arterial compliance and vascular resistance in a bi-ethnic population: the SABPA study. *Free Radical Res*, 2016;50(8):920-928. <http://www.tandfonline.com/doi/abs/10.1080/10715762.2016.1201816?src=recsys&journalCode=ifra20>
  95. Koegelenberg ASE, Smith W, Schutte R, Schutte AE. IGF-1 and NT-proBNP in a black and white population: The SABPA study. *Eur J Clin Invest* 2016;46(9):795-803. <https://www.ncbi.nlm.nih.gov/labs/articles/27455178/>
  96. Omboni S, Aristizabal D, De la sierra A, Dolan E, Head G, Kahan T, Kantola I, Kario K, Kawecka-Jaszcz K, Malan L, Narkiewicz K, Octavio JA, Ohkubo T, Palatini P, Siègelová J, Silva E, Stergiou, G, Zhang Y, Mancia G, Parati, G; on behalf of ARTEMIS (international Ambulatory blood pressure Registry: TEleMonitoring of hypertension and cardiovascular rISK project) Investigators. Hypertension types defined by clinic and ambulatory blood pressure in 14 143 patients referred to hypertension clinics worldwide. Data from the ARTEMIS study. *J Hypertens* 2016;34(11):2187-2198. <https://www.ncbi.nlm.nih.gov/pubmed/27512964>
  97. Schutte CE, Malan L, Scheepers, Oosthuizen W, Cockeran M, Malan NT. Cortisol:Brain-derived Neurotrophic Factor ratio associated with Silent Ischemia in a Black male cohort: The SABPA Study. *Cardiovasc J Afr* 2016;27:387-391. [https://issuu.com/clinicscardivepublishing/docs/cvja\\_27.6\\_online\\_journal](https://issuu.com/clinicscardivepublishing/docs/cvja_27.6_online_journal)
- 2017**
98. Du Plooy CS, Mels CMC, Huisman HW, Kruger R. The association of endothelin-1 with markers of arterial stiffness in black South African women: The SABPA study. *J Amino Acids*, Hindawi Publishing Corporation. PMID: 26823980. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707353/>
  99. von Känel R, Bruwer EJ, de Ridder JH, Malan L. Association between objectively measured physical activity, chronic stress and leukocyte telomere length: the SABPA study. *J Sports Med Phys Fitness*. PMID: 27074439. [https://www.ncbi.nlm.nih.gov/pubmed?linkname=pubmed\\_pubmed&from\\_uid=27074439](https://www.ncbi.nlm.nih.gov/pubmed?linkname=pubmed_pubmed&from_uid=27074439)
  100. Malan L, Mashele N, Malan NT, Harvey BH, Potgieter JC, Van Rooyen JM. Depression symptoms facilitated fibrinolytic dysregulation and future coronary artery disease risk in a Black male cohort: The SABPA study. *J Cardiovasc Nursing* 2017;32(4):401-408. <https://www.ncbi.nlm.nih.gov/pubmed/27428354>
-

101. Malan L, Schutte CE, Alkerwi A, Stranges S, Malan NT. Hypothalamic-pituitary-adrenal-axis dysregulation and double product increases potentiate ischemic heart disease risk in a Black male cohort: The SABPA study. *Hypertens Res* 2017;40(6):590-597. <https://www.ncbi.nlm.nih.gov/pubmed/28179626>
  102. Hamer M, Bruwer EJ, de Ridder JH, Swanepoel M, Kengne AP, Cockeran M, Malan L. The association between seven-day objectively measured habitual physical activity and 24h ambulatory blood pressure: the SABPA study. *J Hum Hypertens* 2017;31(6):409-414. <https://www.ncbi.nlm.nih.gov/pubmed/28124683>
  103. Möller M, Malan L, Mels CM, Magnusson M, Malan NT. Defensive coping and essential amino acid markers as possible predictors for structural vascular disease in an African and Caucasian male cohort: The SABPA study. *Psychophys*. 2017;54(5):696-705. <https://www.ncbi.nlm.nih.gov/pubmed/28218795>
  104. Venter M, Malan L, van Dyk E, Elson JL, van der Westhuizen FH. Using MutPred derived mtDNA load scores to evaluate mtDNA variation in hypertension and diabetes in a bi-ethnic cohort: The SABPA study. *J Genetics & Genomics* 2017;20;44(3):139-149. <https://www.ncbi.nlm.nih.gov/pubmed/28298255>; [http://en.nankai.findplus.cn/n\\_index\\_findplus\\_en.php?h=articles&db=edselp&an=S1673852716302041](http://en.nankai.findplus.cn/n_index_findplus_en.php?h=articles&db=edselp&an=S1673852716302041)
  105. Griffiths M, Malan L, Delpont R, Cockeran M, Reimann M. Lower high-sensitivity cardiac Troponin T cut-points in Blacks predicted 24h systolic hypertension: the SABPA study. *Eur J Prev Cardiol* 2017; 24(9):942-950. <https://www.ncbi.nlm.nih.gov/pubmed/28195519>
  106. Schutte AE, Botha S, Fourie CMT, Gafane L, Kruger R, Lammertyn L, Malan L, Mels CMC, Schutte R, Smith W, van Rooyen JM, Ware L, Huisman HW. Recent advances in understanding hypertension development in sub-Saharan Africa. *J Hum Hypertens* 2017;31(8):491-500. <https://www.ncbi.nlm.nih.gov/pubmed/28332510>
  107. Swart R, van Rooyen JM, Mels CMC. Change in renin, cardiovascular and inflammatory markers over three years in a black and white population: the SABPA study. *BMC Cardiovascular Disorders* 2017;17:104. <https://bmccardiovascdisord.biomedcentral.com/articles/10.1186/s12872-017-0538-x>
  108. Malan NT, von Känel R, Kruger R, Steyn HS, Malan L. The protective role of estradiol against silent myocardial events and hypertensive risk in a Black male cohort: the SABPA Prospective study. *Inter J Cardiol* 2017;244:43-48. <https://www.ncbi.nlm.nih.gov/pubmed/28629624>
  109. Malan L, Hamer M, von Känel, Lambert GW, Delpont R, Steyn HS, Malan NT. Chronic defensiveness and neuroendocrine dysregulation reflect a novel cardiac Troponin T cut point: the SABPA study: *Psychoneuroendocrinology* 2017;2;85:20-27. <http://www.sciencedirect.com/science/article/pii/S0306453017303529>
  110. Du Plooy C, Mels C, Huisman H, Kruger R. Three-year change in endothelin-1 and markers of vascular remodelling in a bi-ethnic South African cohort: The SABPA study. *J Hum Hypertens* 2017;31:708-714.
  111. Mels CMC, Schutte AE, Huisman HW, Smith W, Kruger R, van Rooyen JM, Schwedhelm E, Atzler D, Boeger RH, Malan NT, Malan L. Asymmetric dimethylarginine and symmetric dimethylarginine prospectively relates to carotid wall thickening in black men: The SABPA-study. *Amino Acids* 2017;49(11):1843-1853. <https://www.ncbi.nlm.nih.gov/pubmed/28831582>
- 2018**
112. Swart R, Schutte AE, Van Rooyen JM, Mels CMC. Serum selenium levels, the selenoprotein glutathione peroxidase and vascular protection: The SABPA study. *Food Res Int* 2018;104:69-76. <http://www.sciencedirect.com/science/article/pii/S0963996917303071>
  113. Venter M, van der Westhuizen FH, Elson JL. The aetiology of cardiovascular disease: a role for mitochondrial DNA. *Cardiovasc J Afr* 2018;29(2):122-132.
-



- <https://www.ncbi.nlm.nih.gov/pubmed/28906532>
114. De Vos AC, Malan L, Seedat YK, Cockeran M, Malan NT. Chronic depression symptoms desensitize renin activity to protect against volume overloading hypertension in Blacks: the SABPA study. *Phys & Behav* 2018;194:474-480. <https://www.ncbi.nlm.nih.gov/pubmed/29960014>. (IF=2.571).
115. Wentzel A, Malan L, Scheepers JD, Malan NT. QTc prolongation, increased NT-proBNP and pre-clinical myocardial wall remodelling in excessive alcohol consumers: The SABPA study. *Alcohol* 2018;68:1-8. <https://www.sciencedirect.com/science/article/pii/S0741832916301811>.  
*Media invite:* <https://sciencetrends.com/investigating-the-link-between-alcohol-abuse-and-hypertension-in-black-south-africans/>
116. Malan L, de Kock A, Hamer M, Cockeran M, Malan NT. Defensive coping facilitated a smaller cortisol-to-estradiol ratio and a higher hypertension risk: the SABPA study, *Blood Pressure* 2018;27(5):280-288. <https://www.ncbi.nlm.nih.gov/pubmed/29667849>
117. Le Roux S, Lotter G, Steyn HS, Malan L. Cultural coping as a risk for Depression and Hypertension: the SABPA Prospective study. *Cardiovasc J Afr* 2018;29:1-8. <https://www.ncbi.nlm.nih.gov/pubmed/30152843>.
- 2019**
118. Myburgh CE, Malan L, Wentzel A, Scheepers JD, Malan NT. Coping and Cardiac Troponin T - a risk for hypertension and sub-clinical ECG left ventricular hypertrophy: The SABPA study. *Heart Lung Circ* 2018. [https://www.heartlungcirc.org/article/S1443-9506\(18\)30596-1/pdf](https://www.heartlungcirc.org/article/S1443-9506(18)30596-1/pdf)
119. Gafane-Mateman LF, Van Rooyen JM, Schutte R, Schutte AE. Aldosterone and renin in relation to surrogate measures of sympathetic activity: The SABPA study. *Cardiovasc J Afr* 2019 30(1):34-40. <https://www.ncbi.nlm.nih.gov/pubmed/30720841>
120. Jansen van Vuren E, Malan L, von Känel R, Lammertyn L, Malan NT. Longitudinal changes of cardiac troponin and inflammation are associated with progressive myocyte stretch and hypertension risk in a Black male cohort: The SABPA study. *Hypertens Res* 2019; 42(5):708-716. <https://www.ncbi.nlm.nih.gov/pubmed/30626934>
121. Wentzel A, Malan L, Smith W, von Känel R, Malan NT. Retinal vasculature reactivity during flicker-light-provocation, cardiac stress and stroke risk in Africans: The SABPA study. *Trans Stroke Res* 2018. <https://link.springer.com/article/10.1007%2Fs12975-018-0673-4>.
122. Venter M, Malan L, Elson J, van der Westhuizen FH. Implementing a new variant load model to investigate the role of mtDNA in oxidative stress and inflammation in a bi-ethnic cohort: the SABPA study. *Mitochondrial DNA Part A*. 2019;30(3):440-447. <https://www.ncbi.nlm.nih.gov/pubmed/30657012>
123. Boshoff S, Potgieter JC, J Mentz, S Ellis, Malan L. Validation of the Teacher Stress Inventory (TSI) in a multicultural context: the SABPA study. *SA J Education* 2018;38(2):S1-S12. <https://www.ajol.info/index.php/saje/article/view/182901/172276>
124. J van Vuren E, Malan L, von Känel R, Magnusson M, Lammertyn L, Malan N.T. Prospective associations between cardiac stress, glucose dysregulation and executive cognitive function in Black men: The SABPA study. *J Diab Vasc Disease Res* 2019; 16(3):236-243. <https://journals.sagepub.com/doi/abs/10.1177/1479164118816221>
125. Wentzel A, Malan L, von Känel R, Malan NT. Troponin T acute mental stress responses and ethnic-specific RaVL cut-points: The SABPA study. *Am J Epidem* 2019;pii:kwz082. <https://www.ncbi.nlm.nih.gov/pubmed/30927365>
126. Jansen van Vuren E, Malan L, von Känel R, Magnusson M, Lammertyn L, Malan NT. BDNF increases, constant troponin T levels and cognitive interference control: The SABPA study. *Eur J Clin Invest* 2019; 49(7). <https://www.ncbi.nlm.nih.gov/pubmed/30932178>
-

121. Myburgh CE, Malan L, Möller M, Magnusson M, Melander O, Rauch HGL, Steyn HS, Malan NT. Coping facilitated troponin T increases and hypo-responsivity in the copeptin-HPA-axis during acute mental stress in a Black cohort: the SABPA study. *Phys & Behav* 2019;(1);207:159-166. <https://www.ncbi.nlm.nih.gov/pubmed/31095930>
  127. Myburgh C, Huisman HW, Mels CMC. Cardiovascular reactivity and oxidative stress in young and older adults: The African-PREDICT and SABPA studies. *Blood Pressure* 2019;28:4:229-238. <https://www.tandfonline.com/doi/abs/10.1080/08037051.2019.1609348>
  128. Swart C, Lammertyn L, Welsh PI, Botha-Le Roux S. Vascular Structure and Inflammation in a South African Population: The SABPA Study. *Pulse*, Accepted 2019. <https://www.karger.com/Article/Abstract/500899#>
  129. Gafane-Matemané L, Mokae L, Breet Y, Malan L. Relation of the renin-angiotensin-aldosterone system with potential cardiac injury and remodelling: The SABPA study. *Blood Pressure*, Accepted 2019.
  130. Myburgh C, Huisman HW, Mels CMC. Three-year change in oxidative stress markers is linked to target organ damage in black and white men: The SABPA study. *Hypertens Res* Accepted.
- L. PEER-REVIEWED CONFERENCE PROCEEDINGS:** Plenary/keynote presentations (n=71); Poster presentations (n=58).
-