

SABPA PROSPECTIVE COHORT STUDY PROGRESS

Principal Investigator: Prof Leoné Malan (2008-2019)

A. CURRENT STATUS

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

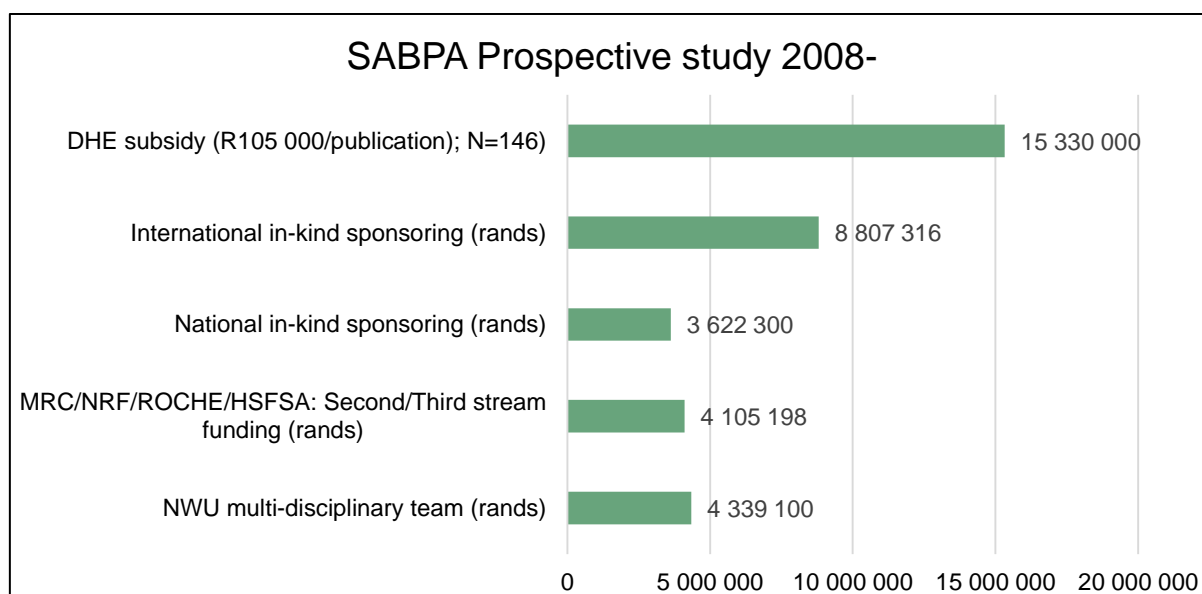
B. SABPA ACTIVE NATIONAL AND INTERNATIONAL COLLABORATORS

NAME OF COLLABORATOR	ENTITIES	FOCUS OF COLLABORATION	ACTIVE COLLABORATION: SABPA & STRESSED PROJECTS
INTERNATIONAL			
1. Prof N Frasure-Smith (PhD)	McGill University, Centre de Recherche de Université de Montréal & Montreal Heart Institute, Quebec, Canada	Depression and CVD risk	Co-author, SABPA design
2. Prof M Hamer (PhD)	University College London, UK	Psychophysiological responses	Author/Co-author, external examiner, co-supervisor, SABPA design
3. Prof R von Känel (MD); Extra-ordinary Professor (HART)	Zürich University, Switzerland	Procoagulation, CVD and mental stress	Author/Co-author, co-supervisor
4. Prof T Ziemssen (MD, PhD) 5. Dr M Reimann (PhD)	Techniklinikum Dresden, Germany	Autonomic Function Retinal vessel analyses	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	Retinal vessel analyses	External control SABPA retinal images, funding software, co-author
8. Prof JCN de Geus (PhD)	Vrije Universteit, Amsterdam, The Netherlands	Genetic polymorphisms, autonomic function and mental stress	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	Endothelial function Neurogenic Hypertension	Co-author, funding: 24h urine catecholamine and cortisol
11. Prof A Alkerwi (MD, PhD)	Luxembourg Institute of Health, Luxembourg	Cardiometabolic responses	Co-author
12. Prof M Magnusson (MD) 13. Prof O Melander (MD)	Lund University, Malmö, Sweden.	SABPA: Metabolomics, diabetes progression and Cardiovascular disease	Author/Co-author
14. Prof S Bacon	Montreal Behavioural Medicine Centre, Canada	Psychophysiological responses	Co-superviso
15. Prof R Böger	University Medical Center, Hamburg, Germany	Endothelial function	Funding/Co-author
SUB-SAHARAN AFRICA			
16. Prof YK Seedat	University of KZN, Natal	Planning; co-author,	Co-author, Dept. Health

(MD, PhD)		external examiner	Guidelines Advisory Board support
17. Prof R Delpont (RN, PhD) 18. Prof P Rheeder (MD, PhD)	University Pretoria (UP)	Cardiomyopathy Cardiometabolic Diseases - Diabetes	Co-authors, collaborators
19. Dr M Zatu (PhD)	Sefako Makgatho University	Cardiometabolic Diseases	Co-author, collaborator, Co-supervisor
20. Prof T Khumalo (PhD)	Vaal Campus, NWU	Psychological stress	Author/co-author, co-supervisor
21. ROCHE Diagnostics	Randburg, Gauteng	Cardiometabolic responses	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 & Electron Eng.:</u> Bio-engineering modeling: StresSed phenotype
	PharmaCEN: (BH Harvey; M Möller-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

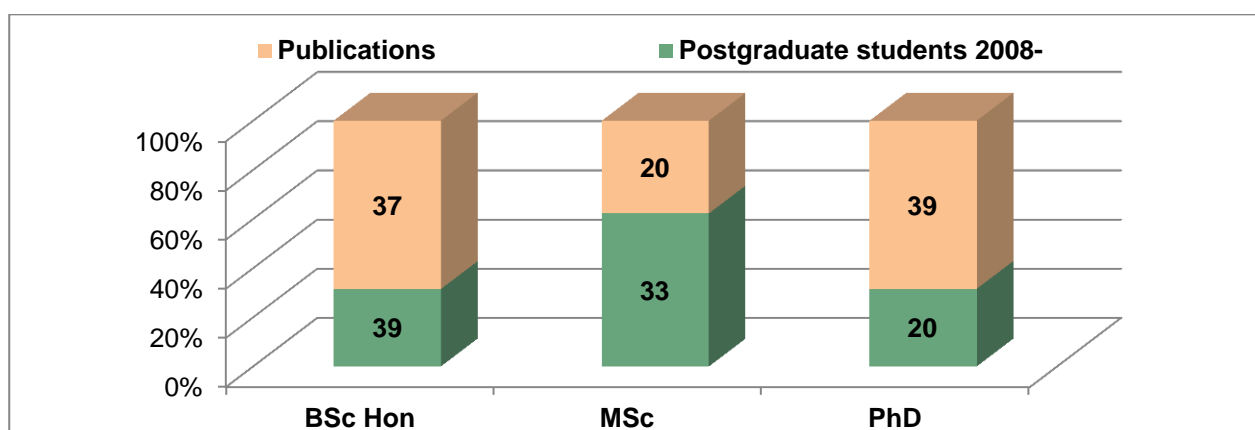
2009- : SABPA STUDY FUNDING CONTRIBUTIONS**(R14.50 rand ~ 1 euro)****RAND**

1. <u>NWU Multidisciplinary team</u>	4 339 100
2. <u>Second Stream Funding</u>	4 725 00
• 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	1 990 000
• Heart & Stroke Foundation SA (HSFSA): 01/2019	320 000.00
3. <u>*International Collaboration</u>	8 807 316
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 students (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): 68th 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, 18th – 23rd 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).
- 2019: NWU-Symposium: Proff Dr P Nilsson, M Magnusson, Dr J Molvin, Dr H Holm (Malmo, Sweden): Sweden-SA collaboration – Cardiometabolic risk, 25 October 2019 (N=80).

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 longitudinal 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.
- 2019: Proff Dr P Nilsson, M Magnusson, Dr J Molvin, Dr H Holm (Malmo, Sweden), 21-26 October 2019: Future collaborative strategy.

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 therapeut). 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
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-ingenelheim.co.za
7. Prof A Sumner, NIH (USA). Waist circumference consensus guidelines in Africa. Ongoing.

H. PUBLIC ENGAGEMENT (number of contributions in brackets): 2008-2019

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* (33)

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

PEER-REVIEWED OUTPUT: 2009 –	
METRICS SUMMARY	Number
Patent	2 (1x filed and 1x pending)
Peer-reviewed Articles	134
Book	1
Peer-reviewed Chapters in Books	7
Editorials (Invited)	4
Popular manuscript/One-pager	2
YouTube video	1
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=104)

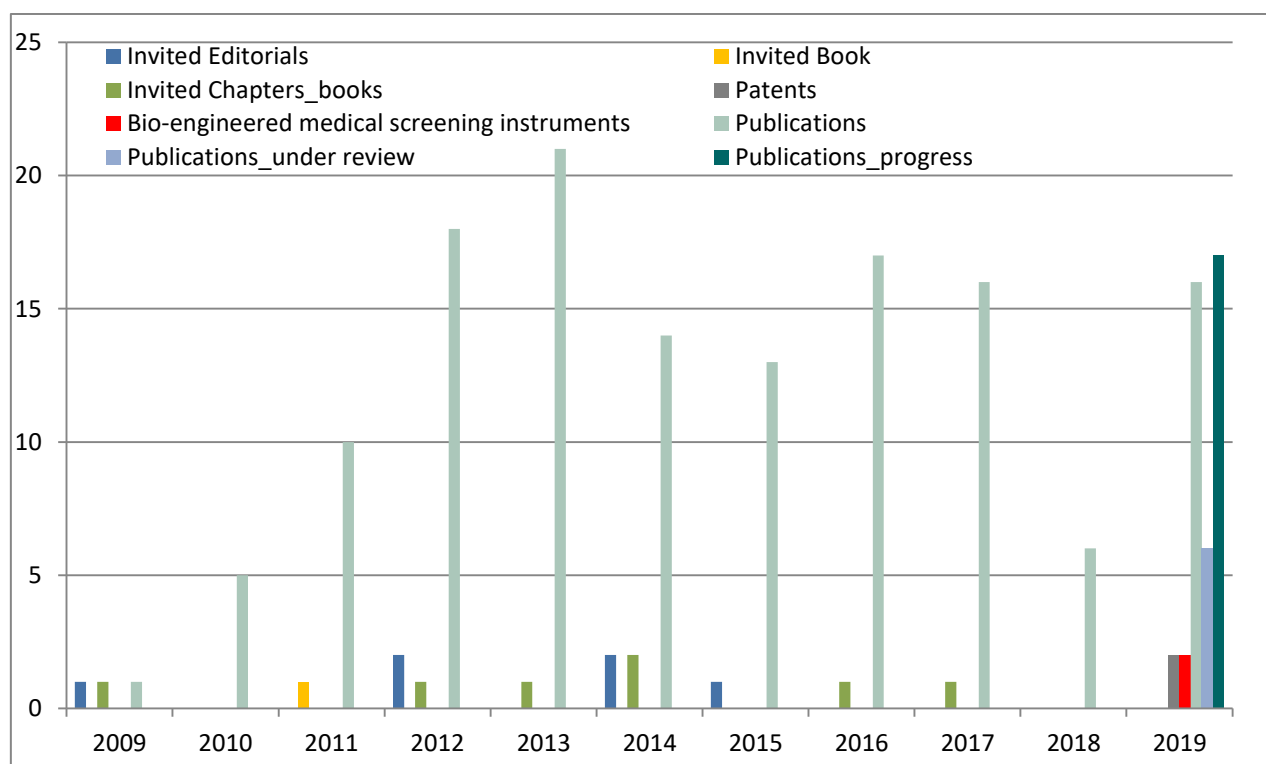


Figure 1: SABPA OUTPUT

PATENT (N=2)

2019: Filed: Malan L, Malan NT. Chronic emotional stress phenotype: RSA Pat. Appl. No. 2019/05103.

2020: Pending: Malan L, Malan NT. Chronic emotional stress and diabetic-stroke phenotype: RSA Pat. Appl. No XXXX

CLINICAL BIO-ENGINEERED MEDICAL SCREENING APPS (N=2)

2019: Filed: Malan L, Malan NT. Chronic emotional stress phenotype: RSA Patent Application Number: 2019/05103.

2020: Pending: Malan L, Malan NT. Chronic stress and diabetes-stroke risk phenotype: RSA Patent Application Number: XXXXX.

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>.

YOUTUBE VIDEO (N=1)

2016: Malan L. (2016, Febr 28). Are you too B.U.S.Y. – brain-heart health: <https://www.youtube.com/watch?v=RW2iwJ05-5o&feature=youtu.be>

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
 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.

BOOK

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-13:978-3-639365580. 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

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

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](#)

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. *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
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 SABPA 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>
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L. PEER-REVIEWED CONFERENCE PROCEEDINGS: Plenary/keynote presentations (n=72); Poster presentations (n=58).