SUMMARISED CURRICULUM VITAE OF
SHANTAL LYNN WINDVOGEL

CURRENT PROFESSION OCCUPATION

Senior lecturer in the Division of Medical Physiology, Stellenbosch University

CONTACT INFORMATION

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LANGUAGES

Fluent in English and Afrikaans (Written and verbal)

ACADEMIC DEGREES AND POSTGRADUATE TRAINING

I was awarded Bachelor of Science (**1998**: Physiology, Medical microbiology), Bachelor of Science Honours (**2002**: Physiology) and PhD in Medical Biosciences (**2007**: Physiology) degrees from the University of the Western Cape. Postgraduate training included a Research Internship (Medicinal plants, Antioxidants: **2005**) and Postdoctoral fellowship (**2007**: Antioxidants, Medicinal plants, Maternal nicotine exposure) at the South African Medical Research Council.

ACADEMIC AND ADMINISTRATIVE POSITIONS (2010-2020)

I am currently the **Module convenor** for the EHP 271 Essentials of Human Physiology **module**, and since **2011,** the **convenor** for AHS 278 Physiology. I have been an MBChB 4th and 5th year internal elective supervisor at Stellenbosch University since 2018. I have been an external moderator for a number of modules at the University of the Western Cape including (**2020-2015:** MBS 214, 217, MBS 231; **2020 -2011**: MBS 331,332; **2011-2010:** MBS 217, 218, University of the Western Cape; I have also been an external moderator at the Cape Peninsula University of Technology (**2015-2013**: Research Methods (Somatology); **2014-2013**: Physiology II Emergency Medical Care. I have been an examiner for the college of Medicine of South Africa (**2015, 2011**). I am an **Animal ethics committee member** (**2020-2015**). My community engagement positions include being the **Chairperson and member of the Division of Medical Physiology Social Impact Organizing Committee (2021-2018).**

POSTGRADUATE SUPERVISION AND EXAMINATION EXPERIENCE

I am currently a supervisor for 1 honours student and co-supervising 3 masters and 2 doctoral students. I have supervised 10 honours students, 2 master's students and co-supervised 3 master's students, 2 doctoral students and 1 postdoctoral researcher. I have been an examiner of honours and masters level students as well as an examiner for the College of Medicine of South Africa (FC Urol. Primary).

CONFERENCES (INCLUDES STUDENT PRESENTATIONS)

2018	Annual Academic Research Day, Stellenbosch University, Cape Town
2017	Physiological Society of South Africa, University of Pretoria, Pretoria
2017	Annual Academic Research Day, Stellenbosch University, Cape Town
2016	Annual Academic Research Day, Stellenbosch University, Cape Town
2015	Annual Academic Research Day, Stellenbosch University, Cape Town
2014	Physiological Society of South Africa, University of Kwazulu Natal, Durban
2012	Physiological Society of South Africa, Stellenbosch University, Cape Town
2011	Physiological Society of South Africa, University of the Western Cape, Cape Town
2010	Physiological Society of South Africa, Walter Sisulu University, East London

PUBLICATIONS AND THESIS

2021 Omolaoye TS, Windvogel SL, Du Plessis SS. **Testicular oxidative stress and apoptosis status in streptozotocin-induced diabetic rats after treatment with rooibos (*Aspalathus linearis*), honeybush (*Cyclopia intermedia*), and sutherlandia (*Lessertia frutescens*) infusions.** Asian Pacific Journal of Reproduction. 2021 10 (1): 11-20. doi: 10.4103/2305-0500.306432

2021 Omolaoye TS, Windvogel SL, Du Plessis SS. **The Effect of Rooibos (*Aspalathus linearis*), Honeybush (*Cyclopia intermedia*) and *Sutherlandia* (*Lessertia frutescens*) on Testicular Insulin Signalling in Streptozotocin-Induced Diabetes in Wistar Rats**. Diabetes Metab Syndr Obes. 2021 Mar 19; 14:1267-1280. doi: 10.2147/DMSO.S285025

2021 Obasa Z, van Vuuren MA, Huisamen B, Windvogel SL. **The modulating effects of green rooibos (*Aspalathus Linearis*) extract on vascular function and antioxidant status in obese Wistar rats**. Cardiovasc J Afr. 2021 Feb 18; 32:1-11. doi: 10.5830/CVJA-2020-048

2020 Smit-van Schalkwyk M, Windvogel S, Strijdom H. **Rooibos (*Aspalathus linearis*) protects against nicotine-induced vascular injury and oxidative stress in Wistar rats.** Cardiovascular Journal of Africa (Advance online publication, February 2020). DOI: 10.5830/CVJA-2019-052

2020 Millar D, Bowles S, Windvogel S, Louw J, Muller C. **Effect of Rooibos (*Aspalathus linearis*) extract on atorvastatin-induced toxicity in C3A liver cells**. Journal of Cellular Physiology 2020: 1-10. https://doi.org/10.1002/jcp.29756

2019 Windvogel S. 2019. Rooibos (*Aspalathus linearis*) and honeybush (*Cyclopia* spp.): from bush teas to potential therapy for cardiovascular disease. In: Hueda, C. H. (eds.) 2020. **Nutraceuticals - past, present and future.** IntechOpen, doi:10.5772/intechopen.86410

2007 Windvogel SL. 2007. **An investigation into the effect of maternal exposure to nicotine and copper on neonatal lung development**. PhD thesis, University of the Western Cape, Bellville, South Africa

2005 Maritz GS and Windvogel S. 2005. **Effect of maternal nicotine exposure during different phases of lung development on neonatal lung development: long term consequences.** Abstracts of 15th ERS Annual Congress, Copenhagen, Denmark. European Respiratory Journal. 26 (suppl. 49): 366s

2005 Maritz GS and Windvogel S. 2005. **Does maternal nicotine exposure during different phases of lung development influence the program that regulates the maintenance of lung integrity in the offspring? A comparative morphologic and morphometric study.** Trends in Biochem. Physiol. (10)

2003 Maritz GS and Windvogel S. 2003. **Chronic maternal nicotine exposure during gestation and lactation and the development of the lung parenchyma in the offspring. Response to nicotine withdrawal.** Pathophysiology. 10 (1): 69-75

2003 Maritz GS and Windvogel S. 2003. **Is maternal copper supplementation during alveolarization protecting the developing rat lung against the adverse effects of maternal nicotine exposure? A morphometric study.** Experimental Lung Research. 29 (4): 243-260

RESEARCH FOCUS

As the leading cause of worldwide deaths, cardiovascular disease is a major public health and socio-economic concern. Risk factors for cardiovascular disease include among others, tobacco smoking, diabetes, obesity and hypertension. I am interested in investigating the impact of these risk factors on the organ systems and vasculature using selected animal models. The focus is on elucidating the mechanistic effects of these risk factors on cardiovascular disease by focusing on oxidative stress and vascular effects. We therefore investigate the effects of interventions such as antioxidants and the use of plants with known antioxidant properties such as rooibos (*Aspalathus linearis*), honeybush (*Cyclopia spp.*) and others, as safe therapeutic options in the alleviation of cardiovascular risk.

RESEARCH COLLABORATORS

1. Prof. Barbara Huisamen, Medical Physiology Division, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg. bh3@sun.ac.za. Tel: 021 938 9688.
2. Dr Gerald Maarman, Division of Medical Physiology, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg. gmaarman@sun.ac.za. Tel: 021 938 9392.
3. Dr Erna Marais, Medical Physiology Division, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg. et4@sun.ac.za. Tel: 021 938 9254.
4. Prof. Stefan du Plessis, Mohammed Bin Rashid University of Medicine and Health Sciences (MBRU), Dubai, UAE, Stefan.duplessis@mbru.ac.ae. +9714 383 8734.
5. Prof. Hans Strijdom, Division of Medical Physiology, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg. jgstr@sun.ac.za. Tel: 021 938 9387.
6. Prof. Christo Muller, South African Medical Research Council, Diabetes Discovery Platform. christo.muller@mrc.ac.za. Tel: 021 938 0894.