

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

1. Bachelor of Science (**1998**: Physiology, Medical microbiology, University of the Western Cape)
2. Bachelor of Science Honours (**2002**: Physiology, University of the Western Cape)
3. PhD (Medical Biosciences, **2007**: Physiology, University of the Western Cape)

ACADEMIC AND ADMINISTRATIVE POSITIONS (2010-PRESENT)

I am currently the **Module convenor** for the EHP 271 Essentials of Human Physiology **module**, and from **2011-2022**, the **convenor** for AHS 278 Physiology. I have been an MBChB 4th and 5th year internal elective supervisor at Stellenbosch University, intermittently, 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 was an Animal ethics committee member **2022-2015**. My community engagement positions include being the Chairperson and member of the Division of Medical Physiology Social Impact Organizing Committee **2025-2018** and Medical Physiology Scientific Review Oversight Committee (SROC) **2021-2025** and member of the Visual Redress Committee **2024-2022** and Faculty of Medicine and Health Sciences Departmental Transformation Committee **2023-2025**; I am currently a Teaching Advancements at University candidate teaching fellow **2024-2025**.

POSTGRADUATE SUPERVISION AND EXAMINATION EXPERIENCE

I have supervised 13 honours students, two masters students and one postdoctoral fellow. I have also co-supervised one honours, six masters and four doctoral students. I am currently supervising, one masters and co-supervising one master's student. I have been an examiner of honours, masters and doctoral level students, as well as an examiner for the College of Medicine of South Africa (FC Urol. Primary) and various undergraduate and postgraduate modules.

CONFERENCES (2015-2025: INCLUDES COLLABORATIVE PRESENTATIONS)

2024	Annual Academic Research Day, Stellenbosch University, Tygerberg, Cape Town
2023	56th Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA) Congress 2023, Johannesburg
2023	Annual Academic Research Day, Stellenbosch University, Cape Town
2022	International Symposium on Service Learning, University of Nicosia, Cyprus
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, Tygerberg, Cape Town
2016	Annual Academic Research Day, Stellenbosch University, Tygerberg, Cape Town
2015	Annual Academic Research Day, Stellenbosch University, Tygerberg, Cape Town

RESEARCH AND COMMUNITY ENGAGEMENT 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 specific animals used are rodents (rats). Our 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. I lead a social impact initiative, "Open Doors to Future Possibilities", in partnership with a local community high school, Voorbrug Senior Secondary. The initiative promotes active citizenship, transformative learning opportunities for staff and students and job shadowing, mentoring and an opportunity for life science learners to engage with Physiology students and learn about relevant health topics.

PUBLICATIONS (Last 5 years)

- 2024** Gabuza K, Mabuda TI, Patel O, Khuboni N, van Aarde R, Riedel S, Sangweni NF, Windvogel SL, Johnson R, Muller CJF. **Afrplex GRT™ extract attenuates hepatic steatosis in an *in vitro* model of NAFLD.** PLoS ONE 19(4): e0297572. <https://doi.org/10.1371/journal.pone.0297572>.
- 2023** Abrahams Y, Willmer T, Patel O, Samodien E, Muller CJF, Windvogel S, Johnson R, Pfeiffer C. **A high fat, high sugar diet induces hepatic Peroxisome proliferator-activated receptor gamma coactivator 1-alpha promoter hypermethylation in male Wistar rats.** Biochemical and Biophysical Research Communications. 2023 (680): 25-33. <https://doi.org/10.1016/j.bbrc.2023.09.004>.
- 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