

Dr Skosana joined the Division of Medical Physiology (Stellenbosch University) as an Honours student, where she performed research on the effects of cotinine (the main metabolite of nicotine) on the functional parameters of spermatozoa. She then continued to do her MSc research on the effects of diet-induced obesity on male fertility, specifically looking at how obesity changes the proteins of reproductive cells and organs (testes, epididymis and spermatozoa) via proteomics. Her study was upgraded to a PhD, which she obtained in March 2021.

Now as the head of the Stellenbosch University Reproductive Research Group (SURRG), she supervises and carries out research on factors affecting male infertility, including pharmaceutical agents, lifestyle factors and metabolic disorders. The techniques utilized by the lab include Computer Aided Sperm Analysis (CASA), fluorescent microscopy, flow cytometry, histology, Western Blotting, spectrophotometry and proteomics. These techniques are used to test, for example, sperm motility viability and morphology, the acrosome reaction in sperm, sperm DNA fragmentation, the histology of the reproductive organs, and the presence or absence of functional proteins important in cell signaling within spermatozoa and other reproductive organs.

Dr Skosana is the recipient of the National Research Foundation (NRF) Thuthuka grant (2017-2019 and 2020-2022), as well as the Early Career Academic Development (ECAD) program grant (also an NRF grant) which together fund her research, her students' scholarships and career development courses/activities. Her Thuthuka grant is also co-funded by the Sub-Committee C, a funding body within the Faculty of Medicine and Health Sciences.

As part of her lecturing responsibilities, Dr Skosana lectures Physiology to the Allied Health Sciences students, a group which consists of Physiotherapy, Nursing and Dietetics students. She also lectures to and is the course convener for the Bachelor of Occupational Therapy 1st year students.