

Study opportunity for Masters in Botany / Pharmaceutical Sciences 2024

The genus *Mesembryanthemum* (including *Sceletium*) is of commercial importance due to interest in the pharmacological properties ascribed to “Sceletium alkaloids”, produced by some species in the genus. The infrageneric taxonomy of the genus, although recently revised, remains challenging.

A comprehensive biosystematic study incorporating diverse, yet complementary techniques, will provide insight into *M. tortuosum* (the species of commercial interest) and its taxonomic allies. The study will incorporate classical botany (taxonomy, morphology, anatomy) with molecular techniques and phytochemical profiling of the alkaloids to further advance and contribute to the knowledge base of the taxa.

Due to the multidisciplinary nature of the study, the ideal candidate should have a broad interest in the disciplines mentioned above. The student will be jointly supervised by Prof Alvaro Viljoen (SARChI in Phytomedicine at TUT) and Dr Cornelia Klak (Bolus herbarium, University of Cape Town). Depending on the specific undergraduate background of the applicant, the student will be registered at either Tshwane University of Technology (Pharmaceutical Sciences) or University of Cape Town (Dept. of Biological Sciences). The student will be required to work at both institutions to complete the various aspects of the research.

A bursary of R 100 000.00 per year is offered for a maximum of two years.

Interested students should submit their curriculum vitae to Ms Chantelle Du Plooy at DuPlooyC@tut.ac.za by 30th June 2023.