



Swiss-SA Student Exchange Program

The principal investigators depicted herein are Dr. Orbett Alexander from South Africa's University of the Western Cape and Dr. Angelo Frei from the University of Bern, who is a native of Switzerland. The formal collaboration between Dr. Alexander's lab and Dr. Frei's lab commenced with the signing and sealing of a Memorandum of Understanding between the University of the Western Cape and the University of Bern. This collaboration was initiated following the successful grant application titled "Exploration of New ReMnMoW Tricarbonyl Complexes as Novel Antibacterial Agents" from the Swiss Tropical and Public Health Institute (Swiss-TPH). The convergence and shared interests of the group are centered around the manganese triad metal ions, as well as the exploration of the uncharted territory of molybdenum and tungsten tricarbonyl chemistry. The expertise within the two groups



encompasses, but is not limited to, inorganic synthesis, crystallography studies, metal-based antimicrobials, machine learning, photochemistry, and organometallic chemistry.



As part of the agreement outlined in the grant proposal, provisions were made for student mobility allocations to benefit the students involved in the grant on both ends. The concept aimed to provide students with an opportunity to visit the respective principal investigators' (PIs) laboratories and gain exposure to the different expertise offered. In collaboration with Mr Umesh Bawa's UWC international Relations office, this initiative was successfully implemented allowing two students from the University of the Western Cape (UWC) the chance to visit Dr. Frei's laboratories in Switzerland. During their visit, they had the opportunity to learn various techniques and utilize specialized equipment. The students featured in the image are Mr. Lehlohonolo Tshepang Motsieloa, an MSc. student from Klerksdorp, and Miss

Thadiwe Portia Mazibuko, an MSc. student from Qwaqwa. Both students are in the final stages of their MSc studies and described their overseas trip as a profoundly impactful and transformative experience, marking their first time traveling abroad. They received assistance and guidance from members of the Frei lab, including Mr. Cagri Ozsan, a PhD candidate, and Miss Sofia Fulgencio, an MSc. student. The findings and experiences gathered during this visit will contribute to theses and publications by the respective students.

Despite the blistering cold weather we experienced in Switzerland, we endeavored to have fun and explore the sights. During our time there, we gained valuable insights into the culture of the Swiss people, particularly their food preferences, which are especially pertinent in such weather conditions. In the photograph, we are pictured enjoying a boat ride around the quaint town of Thun, immersing ourselves in the local culture and way of life. The return trip for the Swiss team will occur later in the year, coinciding with the completion of additional experiments at UWC and discussions to finalize the results and details regarding publications.



As VUB is one of UWC's international partners, Dr. Alexander made a visit to Brussels to meet with one of the leading professors in the field of organic chemistry at VUB, Prof. Ulrich Hennecke. This initiative aimed to establish a solid collaboration between the inorganic (UWC) and organic (VUB) research groups. As shown in the accompanying image, Dr. Alexander delivered a departmental lecture on some of his work. The goal of this collaboration is to expand and provide opportunities for students to engage in projects that involve travel between South Africa and Belgium, enabling them to gain international experience in organic synthesis.