

## **Biography**

- BSc. in Chemistry and Mathematics - University of Zululand, 2005
- BSc(Hon), 2006 and M.Sc., 2008 - University of Cape Town (UCT). Supervised by Prof John R. Moss (deceased) and Prof Gregory S. Smith.
- PhD, 2012 – UCT. Supervised by Prof. Gregory S. Smith and Dr. Anwar M. Jardine.
- UCT Science Faculty, Oppenheimer Memorial Trust and National Research Foundation (NRF) Innovation Postdoctoral Fellow, 2012-2014.
- NRF Research Career Advancement Fellow, 2014-2015.
- Senior Lecturer in the Department of Chemistry at the University of Johannesburg, South Africa, 2015-present.
- African Academy of Sciences-Royal Society: Future Leader African Independent Research Fellow (FLAIR), Department of Chemistry at the University of Johannesburg, South Africa, 2019.

## **Research interests**

Our research interests include the preparation and study of new metal complexes for applications in catalysis and metallodrug discovery.

The focus in catalysis is on how to use renewable and scalable resources, like plant biomass and carbon dioxide, to make useful products such as chemicals, fuel(blends) and functional polymers. The catalysis aspect of this research makes use of water-soluble homogeneous catalysts (to aid catalyst recycling and re-use) and heterogenized catalysts, with use of *in situ* spectroscopy and computational methods, for reaction pathway and kinetic studies.

The research group also prepares novel metal complexes for investigation as potential biomedicines. Here, the approach is to prepare bio-active molecule conjugated metal complexes as anticancer agents and to further probe the cytotoxic mechanism of these agents experimentally and by *in silico* methods