



UNIVERSITY OF  
KWAZULU-NATAL  
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## Postdoctoral Fellowships - 2019 Flagship Research Project at UKZN, SA.

*“Flagship projects, which are trans-disciplinary in scope, are an institution’s highest impact and most prestigious research project. They are essentially big ideas, big science for big impact!”* UKZN’s Vice Chancellor.

### **Post-Doc fellowships : Accelerated Development of Afrocentric Cancer Therapies**

“The lack of diversity in Eurocentric approaches to drug discovery often results in therapies which are sub-optimal for patients of non-European ancestry. This is particularly problematic when one considers that genetic diversity amongst continental populations is greatest in Africa. Given the disproportional burden of TNBC in sub-Saharan Africa, as well as the significant impact of prostate, oesophageal, breast and cervical cancer, coupled to the lack of efficacy of current targeted therapies, this project aims to provide unique insight into the genotypic characterisation of South African cancers, which in addition, will allow us to develop effective and targeted therapies to address this major unmet need which burdens our society”

**Project 1** - The project will involve analysis of HOP variants in South African cancer samples using next generation sequencing. Novel variants shown to be enriched in South African cancers and correlated with survival or disease prognosis will be selected for mechanistic analysis to define the causal link between the modification and the cancer phenotype.

**Project 2** - In this project our aim is to apply a fragment based drug discovery workflow to identify and optimise hit compounds which disrupt the protein-protein interaction between HOP and HSP90 from clinically derived samples, ultimately resulting in cancer cell death via degradation of oncogenic client proteins.

**Requirements:** PhD in Chemistry / Biochemistry/ Molecular and Cellular Biology (or a closely-related field), depending on the projects needs

Current research activity as evidenced by publications in peer-reviewed journals.

Practical expertise in working with mammalian cell lines, clinical samples, recombinant protein expression and/or NGS sample preparation and data analysis (**Project 1**) and drug discovery and biological mass spectrometry (**Project 2**) will be an added advantage. Interested applicants should send their CV, including the email addresses and phone numbers of two referees, and a letter of motivation (max. 500 words) **by 28 February 2019** to [VealeC@ukzn.ac.za](mailto:VealeC@ukzn.ac.za) and [A.Edkins@ru.ac.za](mailto:A.Edkins@ru.ac.za)

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