



**Postdoctoral Research Fellowship at
Biochemistry Division, North-West University, Potchefstroom, South Africa**

“Antigens and Reassortant Strains for Rotaviruses Circulating in Africa “

A 3 year Postdoctoral Research Fellowship is available for the generation of rotavirus virus-like particles as part of a project funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation).

Rotaviruses are the main causative agents of severe dehydrating diarrhoea. Rotavirus is a zoonotic infection that also affects various animal species including rodents, birds and several livestock species. As a result, the infection also threatens food safety. Rotavirus virus-like particles (RV-VLPs) are potential alternative subunit vaccine candidates because they are (i) non-infectious, do not contain genomic material and thus cannot replicate; (ii) highly immunogenic when formulated with appropriate adjuvants as the viral proteins are in their natural conformation; (iii) can be genetically manipulated to provide broader protection by incorporating several rotavirus serotypes; and (iv) are amenable to large-scale production.

The Postdoctoral Fellow will be responsible for (1) generating homologous and heterologous baculovirus expressed VLPs using the VP2/6 DS-1 and Wa backbones in parallel with an MSc student who will use the SA11 VP2/6 backbone; (2) performing the in-depth rational knowledge-, sequence- and structure-based analyses for the selection and the design of the open reading frames of genome segment 9(VP7)s for improving the efficacy of assembly on the various double-layered particles; (3) characterizing the VLPs using serological and molecular methods and co-ordinate the structural evaluation of VLPs assembly by TEM. The Postdoctoral Fellow will also be involved in coordination of project partners, in organization of the regular workshops and in the training program.

The start date of the project is 1 March 2018.

Requirements:

Candidates must have a PhD with a background in virology, molecular biology or immunology. Candidates must send their CV, full academic record, the names and contact details of three recent references to

Prof Albie van Dijk at Albie.VanDijk@nwu.ac.za

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Deadline for applications is 26 January 2018.

Applications will also be considered beyond this if a suitable candidate has not been identified. The principle investigators reserve the right not to make an appointment if a suitable candidate is not identified.