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Post-Doctoral Research Fellowship

Department of Microbiology, University of Stellenbosch, Stellenbosch 7600, South Africa

A postdoctoral fellowship is available for fulltime research for a one year period.

Research: Short chain fructooligosaccharides (scFOS) are used as a prebiotic in human diets, a special food for diabetics and as a diuretic agent. Due to this importance it is imperative to find candidate fructosylfuranosidase (Ffase) enzymes to catalyse the synthesis of scFOS, to biochemically characterise novel fructosylfuranosidases enzymes for their industrial applicability, to develop processes for scFOS production with refined sugar using the preferred enzymes and to optimise the production processes of candidate fructosylfuranosidases enzymes for industrial production. The main research focus of the project is the bioprospecting for fructofuranosidase enzymes for the synthesis of short chain fructooligosaccharides.

We aim to achieve the objectives of this program using a range of cutting-edge molecular and metatranscriptomics methodologies. The screening of metatranscriptome libraries enriched for eukaryotic mRNA's will be developed and employed in this project. Furthermore, classic screening regimes for culturable microbes will also be conducted. The project is made possible as part of funding by PlantBio.

Requirements: A PhD in obtained within the past five years, with a strong background in cDNA library construction, high throughput screening methodologies, molecular biology and yeast biotechnology.

Applications: A cover letter with a full *curriculum vitae* including all research outputs must be submitted to Dr. Heinrich Volschenk, Department of Microbiology, Private Bag X1, Matieland, 7602, by Fax to 021-808 5846 or by e-mail to volschenk@sun.ac.za. Successful applicants will be subject to Stellenbosch University policies and procedures.

Closing date for applications: **31 March 2010**



Rig asseblief alle korrespondensie aan die Registrateur/Please address all correspondence to the Registrar
Universiteitskantoor/University Office

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