

Research on Rooibos and Heart Disease

The first human clinical intervention trial with adults at risk of developing heart disease started in June 2007 at the Cape Peninsula University of Technology (CPUT), South Africa. The study was led by Dr Jeanine Marnewick, with collaborators at CPUT, University of Cape Town, University of Stellenbosch, North-West University and the Medical Research Council. The project is co-funded by the SA Rooibos Council as well as THRIP (Technology and Human **Resources** for Industry Programme) of South Africa's National Research Foundation.

Marnewick's study focused on the potential of Rooibos to protect against oxidative stress and inflammation associated with the development of heart disease. Oxidative stress is defined as an imbalance between oxidants and antioxidants, in favour of oxidants. An excess of these oxidants can damage important cellular components such as lipids, proteins and DNA, resulting in the development of several important degenerative diseases.

Men and women, aged 30 to 60, were included in the study. Each participant had one or more risk factor for heart disease. Examples of the risk factors are raised serum cholesterol levels, pre-hypertension, overweight/obesity, inactive lifestyle or a family history of coronary heart disease. The food and drink intake, as well as blood test results, of the participants were closely monitored over a period of 14 weeks. During a key part of the study the participants consumed six cups of Rooibos per day, followed by a period where they drank mainly water and no beverages with significant flavonoid content in order to compare the two different intervention periods.

The results of the trial were announced at a Rooibos science cafe in Cape Town during November 2008. Dr Marnewick found conclusive evidence that Rooibos significantly reduced several of the pertinent risk factors for cardiac disease. The results will be submitted for publication in the scientific literature during 2009.