

Stellenbosch women scientists achieve research success



Dr Cara Schwarz, Dr Monique Zaahl, with the Minister of Science and Technology, Mr Mosibudi Mangena, Ms Annie Chimphango, Ms Surette Oosthuizen and Dr Belinda Reyers (also a recipient and previously with the University).

Four women scientists at Stellenbosch University (SU) scooped nearly half of the awards at the Department of Science and Technology's (DST) annual Women in Science Awards ceremony in Johannesburg in August – the most by a single university.

The recipients of the prestigious awards were Dr Monique Zaahl of the Department of Genetics (Best Emerging Young Women Scientist), Dr Cara Schwarz of the Department of Process Engineering (L'Oréal Fellowship for Women in Science – Material Sciences), Ms Annie Chimphango of the Department of Process Engineering (Woman Scientist Fellowship: Postgraduate fellowship for women scientists from African countries to study at centres of excellence in South Africa) and Ms Surette Oosthuizen of the Department of Statistics and Actuarial Science (Women Scientist Fellowship: Postgraduate fellowship for women scientists working/studying in an area where participation by women is traditionally low).

The DST created the awards in recognition of the role that South African women play in the world of science. Candidates competed against each other for nine awards in the five categories.

According to the DST, the role that women play in the development and sharing of knowledge that contributes to the improvement of the economic status and

quality of life for others has been limited. In addition, the contribution of outstanding women in scientific research has not been fully recognised. This lack of recognition has resulted in unequal access by women to the research professions.

The further lack of prominent women scientists as role models has hampered both the public understanding of science, engineering and technology and the participation of women at all levels of science.

According to Prof Petra Engelbrecht, Senior Director: Research at SU, the awards give recognition to the research excellence that exists at the University and is indicative of the special role women play in research at the University, currently and in future.

Mr Mosibudi Mangena, the Minister of Science and Technology, congratulated the University by name. In his speech he said that South African women's involvement in science, engineering and technology is greatest at the undergraduate level, but is weakest at the critical research level where academic knowledge is converted into products and services. "Women make up more than 52% of our population, yet less

than 35,5% of our total scientific research population are women. Of the country's 18 500 researchers, only 6 500 are women."

Mangena also said that these women are the role models for future generations. "It is time that we put the women of our past into the stories of the present and our hopes for the future," he said.

Zaahl investigates genes involved in iron homeostasis/metabolism in hereditary haemochromatosis, oesophageal cancer and multiple sclerosis in South African patients.

Schwarz's research focuses on high pressure phase equilibria and separations and has culminated in the building of a pilot plant that produces wax-like alcohol ethoxylate in viable quantities. This has huge implications for many industries, from printing and paper to food, since the many potential applications for waxes are limited by their insolubility.

Chimphango's research deals with process optimisation for the production of speciality enzymes from recombinant strains of *Aspergillus niger* and the application of these enzymes to improve wood pulp and paper quality. This research is highly relevant to the South African and international paper and pulp industries.

Oosthuizen's thesis is entitled Variable selection for kernel methods and focuses on classification by means of kernel methods. This classification method can be utilised to solve important problems in the real world, such as identifying corruption in the financial sector.

The women are not the first to excel in this competition. In the past Stellenbosch women such as Dr Christine Steenkamp of the Department of Physics won the 2003 category for Women Scientist Fellowship in an area where participation by women is traditionally low, and in 2005 Dr Karin Jacobs of the Department of Microbiology won the Best Emerging Young Women Scientist category. 