

Microbiology students celebrate Tata scholarships



Megan Gemmell (left) and Lorika Beukes in the microbiology laboratory on UKZN's Pietermaritzburg Campus

VICKY CROOKES

MASTERS microbiology students, Megan Gemmell and Lorika Beukes, have been funded by Tata Africa to pursue their research aimed at improving the environment for the benefit of South African society.

The Tata Africa Scholarships, which have been in existence since 2006, are awarded annually to students across South Africa for postgraduate studies. The funding is provided to students who are financially challenged and who have a proven academic track record.

The Pietermaritzburg-based microbiology scholars joined UKZN Vice-Chancellor Professor Malegapuru Makgoba and the six other UKZN Tata Scholarship recipients at an awards ceremony held at the University of the Witwatersrand.

Supervised by Professor Stefan Schmidt, Gemmell and Beukes both possess a passion

for uplifting the community and for sustaining and nurturing the environment.

The main objective of Gemmell's masters research is to identify potential links between irrigation water quality and microbiological quality of food in commercial and subsistence farming in KwaZulu-Natal. She will be assessing the presence of toxic spore-forming and faecal bacteria in both irrigation water and raw food products. This will establish any links between water quality and food safety. If the irrigation water quality does not meet World Health Organisation standards, and is linked to the potential transfer of pathogenic micro-organisms to fruit and vegetables, methods will need to be developed to treat the water, thereby preventing this transfer.

Gemmell, who travelled around the world after completing her honours degree, said: "I have a passion

for the community, the environment and its rehabilitation and I am fortunate enough to be able to fulfil my interests through my masters degree."

Beukes completed her microbiology honours degree in 2009 which involved a project based with Umgeni Water entitled: *The Microbiological Assessment of a biofiltration plant employed to remove manganese from groundwater*. For her masters research, she will continue with the same project that essentially serves to provide rural communities with metal-free water.

As part of her research, she hopes to conduct further analyses on iron and manganese filters. "My experiences during my undergraduate degree have made me very aware that our country and the world is in need of change with regards to the environment and the way human beings take care of it," said Beukes.

