

World drug discovery expert to tutor CSIR scientists

Four scientists from CSIR Biosciences have been selected to embark on an exciting new drug discovery training programme - a joint venture involving South Africa's National Research Foundation (NRF), the Department of Science and Technology (DST) and Emory University in the United States of America. The aim of this programme is to build international research capacity in South Africa, transfer new technologies to the country and prepare South African scientists for leadership roles in drug discovery.

The CSIR four - Dr Chris van der Westhuyzen, Dr Simon Moleele, Dr Malefa Tselanyane and doctoral candidate Pamisha Pillay - together with a scientist from the Medical Research Council and another representing Rhodes University, will embark on the inaugural scholarship programme in January next year. They will spend six months under the tutelage of drug discovery expert Professor Dennis Liotta at Emory based in Atlanta, Georgia.

Liotta, a professor of organic chemistry, is world-acclaimed for the discovery of lamivudine (3TC) and emtricitabine (FTC). He, together with two Emory University colleagues, developed these drugs that are now part of an antiretroviral cocktail taken by 80% of HIV-positive patients in the US, with reported sales of more than US \$1 billion. He has also founded several drug discovery companies and has been recognised as a seminal contributor to medicinal chemistry.

"Liotta is regarded as the most successful academic in drug development in the world," says Dr Chris Parkinson who leads the CSIR Biosciences discovery chemistry research group of which Van der Westhuyzen and Moleele are members.

"The interests of Liotta's research group are well-aligned with our own. Simon, Chris, Malefa and Pamisha will be exposed to pharmaceutical companies to get an idea about the hard-core end of the research pipeline," says Parkinson, who developed an acquaintance with Liotta in 2003. Together, they have been investigating means to train South African scientists in drug development. Parkinson's own research group has been focusing on designing and synthesising inhibitors against TB, HIV and malaria while incorporating computer modelling.

"A limitation of the South African system is that you go straight from graduate school to work, with very few postdoctoral opportunities. It's always good to be exposed to mentors in order to assimilate a greater variety of ideas," says Parkinson.

This is exactly why Van der Westhuyzen is eager to begin the programme. "Liotta should be able to give us the direction we need to kick-start the drug discovery pipeline in South Africa and hopefully inspire other



Dr Simon Moleele (foreground) and
Dr Chris van der Westhuyzen



Dr Malefa Tselanyane



Pamisha Pillay

scientists to do the same."

Moleele echoes this: "I'm hoping to gain a lot because I've recently graduated with my PhD."

Tselanyane and Pillay work in the bioprospecting team and are both honoured to have been selected for the programme. "I'm so excited and keen to learn about other assays that we don't have but that can be set up here," says Tselanyane.

"I am confident that the programme will not only help us to develop our expertise in drug discovery and make us better scientists, but will also provide us with a chance to strengthen networks and forge collaborations with some of the leaders in drug discovery in the US," Pillay says.

The NRF is managing this programme on behalf of the DST and has offered each participant a travel grant covering the costs of a return air ticket as well as related travel within the US. Emory University will provide accommodation and a monthly stipend for the duration of the programme.

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