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KZN Research and Innovation Sequencing Platform established

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THE Technology Innovation Agency (TIA) and UKZN have signed an agreement for the establishment of the KwaZulu-Natal Research and Innovation Sequencing Platform (KRISP).

This agreement with TIA takes the omics/informatics facility to new levels.

KRISP, the result of hard work by, among others, Prof Tullio de Oliveira, Prof Deresh Ramjugomath and Prof Salim Abdoel Karim, was previously known as the Genomics and Bioinformatics Centre.

The Deputy Vice-Chancellor and Head of the College of Health Sciences, Professor Rob Slotow, said KRISP was one of many exciting research projects driven by Prof De Oliveira.

Prof De Oliveira is a full professor at the Nelson R Mandela School of Medicine at UKZN and a research associate at the Centre for the Aids Programme of Research in South Africa (Caprisa). Recognised as an expert on HIV genetic data and bioinformatics software



The view from Vital-IT and the Swiss Institute of Bioinformatics campus in Lausanne, Switzerland, which the KRISP team visited recently to set up collaborations and learn more about their successful business plan.

development, he received his PhD at the Nelson R Mandela School of Medicine in 2003, was a Marie Curie Fellow at the University of Oxford in the United Kingdom in 2006 and was recently awarded a Royal Society Newton Advanced Fellowship.

In total, he has published

more than 100 manuscripts, and developed dozens of bioinformatics software applications and databases. Prof De Oliveira leads a group of 18 researchers and/or postgraduate students.

The concept for KRISP started in discussions with the executives of UKZN, Caprisa, TIA

and the Department of Science and Technology, funded by the South African Research Infrastructure Roadmap DIPLOM-ICS programme.

"We decided that it was wise to build KRISP on our strength in genomics, epidemiology and bioinformatics and to use our

existing facilities at the School of Laboratory Medicine and Medical Sciences in the College of Health Sciences to host it," said Prof De Oliveira.

The vision of KRISP is to produce and analyse omics data at the same speed and quality as the top genomics centres in



Professor Tullio De Oliveira

the world. This will produce cutting-edge research, support industrial development and empower the next generation of scientists in South Africa.

A critical function of KRISP will be to enable and facilitate access to genomics, epigenetics and bioinformatics technology to a broader community of users who might not otherwise pursue those technologies or use alternative international resources. KRISP aims to create, in collaboration with TIA, a professionally-run and accredited service component that is avail-

able for academic, commercial and industrial clients.

The agreement will see TIA provide R5 million a year for the core of the facility, but there is now opportunity to leverage

additional funding for flagship projects, including a programme of the South African Medical Research Council (SAMRC). The SAMRC Flagship programme has been successful – it has published 60 manuscripts, produced nine MScs and PhD students and trained 1150 participants as part of capacity-building workshops in the past three years.

KRISP is now looking for opportunities to collaborate with key stakeholders and funders to identify new flagship programmes that can generate similar scientific and capacity-building output.

"We are passionate about training and capacity building. For example, in the past three years, we organised 16 workshops during which 1150 individuals were trained. As part of KRISP, we will continue and expand our training programme.

"We also expect to graduate more PhDs and MScs to produce the scientific leaders of tomorrow," said Prof De Oliveira.

Director of Caprisa Prof Salim Abdoel Karim has been crucial in the planning processes and will act as chair of the board.

KRISP has thanked SAMRC for its support and looks forward to a positive interaction in the future.

"A big thank you to everyone who worked hard towards the establishment of KRISP. I am very glad to see this has happened and we will work very hard to become a success story," concluded Prof De Oliveira.