

Under strict embargo until 18:00 South African time on Monday, 18 July 2016

Launch of new R1.2-billion KwaZulu-Natal research powerhouse

In a bold move to improve the health of people locally and globally, two research giants in KwaZulu-Natal (KZN) are joining forces to form a ground-breaking new interdisciplinary institute to fight tuberculosis (TB), HIV and related diseases.

The new organisation, the **Africa Health Research Institute**, is located at the heart of South Africa's TB and HIV co-epidemic. It combines the renowned Africa Centre for Population Health's detailed population data from over 100 000 participants, with the KwaZulu-Natal Research Institute for TB-HIV's (K-RITH's) basic science, experimental medicine and world-class laboratory facilities.

The new venture is made possible through R1.2-billion in grants from Wellcome Trust and the Howard Hughes Medical Institute (HHMI), with UCL (University College London) and the University of KwaZulu-Natal (UKZN) as significant academic partners.

The Africa Health Research Institute's interdisciplinary 'population to laboratory – and back to population' approach to addressing the TB and HIV co-epidemic comes at a critical moment. Despite advances in antiretroviral therapy and talk of the 'end of Aids', HIV and HIV-related TB remain devastating diseases - with TB among the leading causes of death in South Africa. The province of KZN has the highest HIV burden, while TB is responsible for more than 14% of all deaths here. The emergence of drug resistant strains of TB and HIV meanwhile present a major public health crisis.

The Africa Health Research Institute is committed to working towards the elimination of HIV and TB disease. To achieve this, the institute will bring together leading researchers from different fields, use cutting-edge science to improve people's health, and help to train the next generation of African scientists.

Wellcome Trust and HHMI are two of the largest funders of biomedical research and the establishment of the Africa Health Research Institute represents the first time these organisations have partnered in the global health arena. The complementary strengths of our partner institutions allow a broader scope of interdisciplinary, translational research that is relevant both locally and internationally and is underpinned by strong policy engagement.

Professor Deenan Pillay, Director of the Africa Centre for Population Health, and incoming Director of the Africa Health Research Institute, said: "KwaZulu-Natal is at the centre of the dual epidemics of HIV and TB. This is the one place in the world where the marrying of disciplines can have maximum impact on new HIV infections and TB transmission. We will link clinical and laboratory-based studies with social science, health systems research and population studies to make fundamental discoveries about these killer diseases, as well as demonstrating how best to reduce morbidity and mortality."

Our ongoing research areas include:

- the longest running population-based HIV Treatment as Prevention (TasP) trial in Africa
- An innovative research project on human lung granuloma biology, involving close collaboration with surgeons performing lung resections at Durban's Inkosi Albert Luthuli Central Hospital and King Dinuzulu Hospital Complex
- Applying genomics to better understand TB drug resistance

Our laboratory facilities at the K-RITH Tower Building in Durban include state-of-the-art Biosafety Level 3 (BSL3) labs, which allow scientists to safely work with dangerous airborne diseases such as TB. We are also host to Africa's only microfluidic chip-making foundry, where scientists are working to develop low-cost, sample-in-answer-out disease diagnostic devices to address the HIV and TB epidemics.

The Africa Health Research Institute's research is truly collaborative: we work with over 60 academic and clinical institutions in South Africa and elsewhere in Africa and the world.

Professor David Lomas, UCL Vice-Provost (Health) said: "UCL takes a collaborative approach to tackling major global challenges and forging successful partnerships is a key priority and strength of the School of Life and Medical Sciences. Our commitment to the Africa Health Research Institute builds on our role as one of the world's leading centres for biomedical research. The Africa Health Research Institute will become a significant global partner for UCL, in line with our Global Engagement Strategy, and will strengthen the translation of our research into new therapies that address the HIV/TB co-epidemic and benefit human health."

Professor Mike Turner, Wellcome Trust Acting Director of Science and Head of Infection Biology, said: "The investment by Wellcome and others in South African health research has undoubtedly improved the lives of people with HIV over the past 15 years. But growing resistance to HIV and TB treatments, and stubbornly high infection rates, mean we must redouble our efforts if we are going to sustain our hard-won progress.

"Long-standing threats such as TB, HIV and increasingly the non-communicable diseases, will only be solved with a strong research base which combines different approaches. Individuals and teams at the Africa Health Research Institute will play a leading role in shaping and driving world class, locally driven and relevant research that improves human health. Ultimately, solutions to health crises will be driven by African scientists and, increasingly, African investment."

HHMI President Robert Tjian said: "We believe this new research centre is well positioned to make the critical scientific advances needed to improve our understanding of and advance treatment for these two deadly infectious diseases. The unification of these institutes makes possible a spectrum of research previously unimagined by either the Africa Centre or K-RITH separately."

UKZN spokesperson Lesiba Seshoka said: "The unification is a major achievement. It maximises the opportunities for impact of world leading research on the twin epidemics of HIV and TB."

- Ends -

Notes to editors

Please note the embargo: 6pm South African time on Monday, 18 July 2016.

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Photo captions (high res photos available on request):

1. Africa Centre Building: The Africa Centre building in Somkhele (Photo credit: Ben Gilbert, Wellcome)
2. K-RITH Tower Building: The K-RITH Tower Building on the UKZN Nelson R. Mandela School of Medicine campus in Durban.
3. PhD Student Bonisile Luthuli: PhD student Bonisile Luthuli in the K-RITH Bioengineering clean room
4. Philile Mcambi captures data in the field in northern KwaZulu-Natal (Photo credit: Ben Gilbert, Wellcome)
5. Deenan Pillay: Professor Deenan Pillay, Director, Africa Health Research Institute (Photo credit: Ben Gilbert, Wellcome)

Photos can be credited as 'supplied', unless otherwise indicated above.

Video:

A video can be accessed at this link: <https://vimeo.com/173873132> using AHRI_video as a password. (Password protected until 6pm, Monday 18th July).

The video file is available for download on request.

More about our partners:

About the Wellcome Trust

Wellcome exists to improve health for everyone by helping great ideas to thrive. We're a global charitable foundation, both politically and financially independent. We support scientists and researchers, take on big problems, fuel imaginations and spark debate. www.wellcome.ac.uk

About the Howard Hughes Medical Institute (HHMI)

The Howard Hughes Medical Institute plays an important role in advancing scientific research and education in the United States. Its scientists, located across the country and around the world, have made important discoveries that advance both human health and our fundamental understanding of biology. The Institute also aims to transform science education into a creative, interdisciplinary endeavour that reflects the excitement of real research. HHMI's headquarters are located in Chevy Chase, Maryland, just outside Washington, D.C. <http://www.hhmi.org>

About UCL (University College London)

UCL was founded in 1826. We were the first English university established after Oxford and Cambridge, the first to open up university education to those previously excluded from it, and the first to provide systematic teaching of law, architecture and medicine. We are among the world's top universities, as reflected by performance in a range of international rankings and tables. UCL currently has over 35,000 students from 150 countries and over 11,000 staff. Our annual income is more than £1 billion.

UCL School of Life and Medical Sciences brings together four UCL faculties (Brain Sciences, Life Sciences, Medical Sciences and Population Health Sciences) to create one of the largest and most prestigious groupings of academics in biomedical, life and population health sciences. According to the Research Excellence Framework 2014 we are the UK's strongest medical research grouping and we have the greatest amount of world leading research covering medicine and biological sciences. www.ucl.ac.uk

About the University of KwaZulu-Natal (UKZN)

UKZN is recognised as one of South Africa's top research-focused universities. It is one of the largest universities in sub-Saharan Africa, with five campuses in the two cities of Durban and Pietermaritzburg. HIV/AIDS, TB and Health Promotion is one of UKZN's key research focus areas. The University has committed itself and its resources to the common good of society. www.ukzn.ac.za

