

NT LEADS GENOMICS RESEARCH INITIATIVE THAT COULD HOLD THE KEY TO ENDING EBOLA, ANTHRAX AND SARS OUTBREAKS

Monday, 28 September 2015

A Darwin-led workshop will study African Ebola outbreaks, including the most recent devastating outbreak in West Africa, as part of this week's inaugural Genomics North Australia (GNA) workshop training series.

Starting tomorrow, Menzies School of Health Research (Menzies) and Charles Darwin University (CDU) will offer researchers and students an opportunity to learn how to employ cutting-edge genomics tools to study Ebolavirus evolution and transmission, using the University's own supercomputer, *Cheetah*.

Menzies senior researcher and workshop facilitator Dr Derek Sarovich explained that attendees will learn fundamental and essential genomics skills at this workshop.

"Genomics is a transformative research approach that strips disease agents into their most basic make-up, allowing researchers to accurately pinpoint genetic changes to an unprecedented level.

"The skills being taught in this workshop can be applied to studying any outbreak of public health importance - bird flu, SARS, and even sinister cases like the 2001 anthrax letter attacks in the United States," Dr Sarovich explains.

Formed in the Northern Territory (NT) in 2014, GNA is a new research group that is predicted to become a hub of genomic research and teaching, both locally and internationally.

Menzies senior researcher and co-facilitator Dr Erin Price described GNA as an excellent foundation for building closer links with collaborators in Southeast Asia, which is an important area of growth for the NT.

"Genomics is opening many new and exciting research opportunities in the NT. The GNA initiative is important for continuing to grow our local expertise in cutting-edge genomics. These workshops are critical for supporting and encouraging the next generation of local researchers, particularly those who are contemplating a career in science."

GNA is currently being driven by a handful of Menzies and CDU scientists who want to see this important and timely initiative funded and developed into a strong area of growth for the NT and its Asia-Pacific partners.

"Universities and research institutions that do not have bioinformatics training integrated into undergraduate and postgraduate courses risk becoming rapidly non-competitive." Dr Price added.

"GNA provides an opportunity for the NT to be at the forefront of this burgeoning field, with a strong focus on growth into the Asia-Pacific region and beyond".

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Media note:

[Dr Derek Sarovich](#) (@DerekSarovich) is focused on using next-generation sequencing and bioinformatics tools to study the evolution, pathogenicity and dissemination of infectious diseases. His primary research interest is melioidosis, a disease endemic in the NT that is caused by the highly pathogenic bacterium *Burkholderia pseudomallei*.

[Dr Erin Price](#) (@Dr_ErinPrice) is focused on the application of genetics, genomics and transcriptomics as research tools to better understand infectious diseases, particularly those that affect humans. Erin has worked on a number of pathogens including *Burkholderia pseudomallei* (melioidosis), *Haemophilus influenzae* (ear and respiratory disease), *Neisseria meningitidis* (meningococcal disease), *Campylobacter jejuni* (foodborne disease), *Yersinia pestis* (bubonic plague) and *Bacillus anthracis* (anthrax).

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Menzies Background

Menzies School of Health Research is Australia's leading medical research institute dedicated to improving Indigenous, global and tropical health. We have a 30 year history of scientific discovery and public health achievement. Menzies works at the frontline, joining with partners across the Asia-Pacific as well as Indigenous communities across northern and central Australia. We collaborate to create new knowledge, grow local skills and find enduring solutions to problems that matter.