



Garvan Institute of Medical Research

# Leaders in Science & Society



## Prof Alan Cooper

Director, Australian Centre for Ancient DNA  
University of Adelaide

**“Prehistomics: Using Ancient Genomes, Epigenomes, and Microbiomes to study the evolutionary impacts of rapid environmental change”**

**Monday 11 September 2017 12PM, AUDITORIUM**

**Host: Prof John Mattick**

Prof. Alan Cooper has played a central role in the development of the field of ancient DNA, starting with his PhD research in Allan Wilson’s UC Berkeley laboratory with Svante Paabo in 1989. He established the Henry Wellcome Ancient Biomolecules Centre at the University of Oxford, where he was the Professor of Ancient Biomolecules from 2001-2005. In 2003 he sequenced the first complete mitochondrial genomes of an extinct species, two giant New Zealand moa. In 2005 he moved to the University of Adelaide to establish the Australian Centre for Ancient DNA (ACAD) as an Australian Research Council Federation Fellow (2005-2010), followed by an ARC Future Fellowship (2011-2014), and is now an ARC Laureate Fellow (2015-2019). He was named the 2016 South Australian Scientist of the Year.

Prof. Cooper’s research interests include the use of ancient genetic data and analytical approaches to study key evolutionary processes across a broad range of timescales and biogeography – including genomic responses to past climate and environmental changes, extinction events, human evolution and migration, and the evolution of microbiomes and disease. His multi-disciplinary focus integrates data from genomics, bioinformatics and mathematics, zoology, archaeology, microbiology, palaeontology, physical dating methods, and climate records.

Recent major research outputs include establishing a new field of ancient human microbiome research, genomic analyses of human migration in Europe, the Americas, and Australia, bison genomic evolution, and the impacts of climate change on animal, plant and microbiome evolution.