



Garvan Institute of Medical Research

Leaders in Science & Society



Prof Susan Clark

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Garvan Institute of Medical Research

“Beyond Genomics: Reflecting on the Past, Present and Future”

Monday 23 April 2018 12PM, AUDITORIUM

Host: Prof John Mattick

Professor Susan Clark, FAA is a pioneer of epigenetics research. Currently she is a NHMRC Senior Principal Research Fellow and inaugural Head of the Genome and Epigenetics Division at the Garvan Institute of Medical Research in Sydney, Australia. She graduated in 1982 with a PhD in Biochemistry, University of Adelaide and spent ten years in the Recombinant DNA Technology Industry before returning to basic molecular biology research at CSIRO in 1992.

Her molecular studies over her research career have addressed profound questions about the importance of epigenetics in early development and disease. The techniques she pioneered in the early 1990s, including bisulphite methylation sequencing, helped revolutionise the now burgeoning field of epigenomics. She made extensive ground-breaking discoveries relating to DNA methylation patterns in normal and cancer genomes, that led to the commercialisation of new methylation-based tests for early cancer detection. Clark joined the Garvan in 2014 and turned her attention to understanding the epigenetic landscape of large-scale domains in cancer, using and developing new genome-wide sequencing and bioinformatic protocols to map DNA methylation, histone modification, nucleosome positioning and regulatory RNA profiles. Her Labs work has resulted in a number of seminal papers, demonstrating that epigenetic changes in cancer can encompass genome-wide 3D domains, resulting in global and co-ordinate gene silencing and activation.

Susan was a founding member of IHEC (International Human Epigenome Consortium) and led the formation and is president of the AEpiA (Australian Epigenetics Alliance). She has a number of prestigious awards including the RPAH Research Medal (2002), Julian Wells Medal (2003); “Biochemisch Analytik Preis” for outstanding contribution for Methylation analysis in 2004; In 2006, Susan was elected a Fellow of the World Technology Network for Biotechnology, 2012 was awarded the National Rotary Vocational Award and in 2015 received the NSW Cancer Institute “Make a Difference” Award and was elected a Fellow of the Australian Academy of Science. In 2017, Susan was awarded the Clive and Vera Ramaciotti Medal of Excellence.