

NSW Big Ideas Oncology Seminar Series

UNSW-USYD

Professor Vanessa Hayes



Monday 24th June 2024



Seminar: 12:30-13:30
Networking: 13:30-14:00 -
lunch will be provided



Kirby Seminar Room 638,
Level 6, Wallace Wurth (C27)

Host: Prof David Thomas (UNSW)



Professor Hayes is the Petre Chair of Prostate Cancer Research at the University of Sydney, where she heads the Ancestry and Health Genomics Laboratory. Her lab uses genomics and big data analytics to understand why ancestry and/or geography is a significant determinant for lethal prostate cancer. Establishing globally unique bioresources, the team's approach is holistic aimed at unravelling both genetic and non-genetic forces at play. The overall objective - to establish a roadmap for prostate cancer precision medicine that is globally inclusive.



Scan here to
RSVP to join in
person



Scan here to join virtually
Meeting ID: 421 156 667 219;
Password: j8hFaM

Multi-omic global approach to tackling prostate cancer health disparities

Prostate cancer (PCa) shows significant geo-ancestral disparity in burden, outcomes and lethality. While incidence rates are highest in western countries, including Australia, mortality rates are disproportionately elevated in global regions of economic transition, specifically in Sub-Saharan Africa. Conversely, Asian Nations have the lowest incidence and mortality rates. While genomics plays a significant role in global PCa health disparities, prostate tumour genome profiling data is scarce for both African and Asian nations, especially at the whole genome and multi-omic level. Additionally, PCa presents with extreme genomic heterogeneity, even within single ancestral groups, which further impact patient management and treatment. Most recently, the Hayes Lab through whole tumour genome interrogation, showed men of African ancestry present with a unique genomic landscape, which included from cancer drivers to therapeutic targets, to a novel PCa taxonomy and mutational signatures. Through our unique grass-roots approach, the Hayes Lab is demonstrating how minority inclusion, specifically capturing the rich genomic and environmental diversity across Sub-Saharan Africa, is critical if we are to understand the etiology of lethal PCa.



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