

2018 Seminar Series



Wednesday 9th of May

12-1pm

Bio21 Institute Auditorium

30 Flemington Road, Parkville

A/Prof Alicia Oshlack

*Murdoch Children's Research Institute,
Melbourne*

Cancer to kidneys: Analysing transcriptomes from complex samples to single cells

Associate Professor Alicia Oshlack is the head of Bioinformatics at the Murdoch Children's Research Institute and an NHMRC Career Development Fellow (level 2). Oshlack has been working in the field of Bioinformatics for nearly 15 years and she is best known for her body of work developing methods for the analysis transcriptome data. Oshlack has also built an extensive collaborative network with many national and international research groups uncovering molecular mechanisms of development and disease using a variety of genomic approaches. Oshlack is regarded as a worldwide expert in the field of RNA-seq analysis has has several projects utilising the analysis of single-cell transcriptomes. She also work in the areas of clinical diagnostics from DNA sequencing and epigenetic. Oshlack is a member of the editorial board of *Genome Biology*. She has received several awards including the Millennium Science award from the Lorne Genome conference, the Australian Academy of Science Ruth Gani medal for human genetics (2011) and the inaugural Georgina Sweet award for women in quantitative biomedical research (2016).

In this seminar Oshlack will talk about her recent work in analysing paediatric cancer transcriptomes to give insight into prognostic outcomes and treatment options. She will also show new methods developed in her lab to detect and visualise oncogenic drivers in paediatric cancer. In addition she will outline work she has been doing in collaboration with the Kidney group investigating the variability in iPSC derived kidney organoids and investigations using single-cell transcriptomics. Finally she will outline some general lesson learnt from the analysis of single-cells.