

# Doherty Seminar Series

Large scale pooled CRISPR screens for identification of new drug targets and understanding disease genes

**Thursday, 17 June 12.00pm – 1.00pm**

The Peter Doherty Institute for Infection & Immunity

**Webinar Link:**

<https://unimelb.zoom.us/j/82054663809?pwd=WlI0VWpzNy91ZERxRUUzMWZkU01QQT09>

**Webinar ID:** 820 5466 3809 **Webinar Passcode:** 651933

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**Associate Professor Joseph (Sefi) Rosenbluh** is the Victorian mid-career research fellow at Monash University. He has made major contributions in functional cancer genomics and our understanding of genetic dependencies in cancer. After completing his PhD at the Hebrew University of Jerusalem, Israel he moved to the Broad Institute of Harvard and MIT as a postdoctoral fellow and later as an instructor of medicine. In 2017, Sefi joined the faculty of Monash university and in addition to heading a research lab he directs the Monash functional genomics platform. His recent focus has been on developing CRISPR technologies for loss of function screens and application of these technologies for identifying new targets for cancer treatment and prediction of cancer risk.

**Outline:** The revolution of large scale pooled CRISPR screens enables high throughput gain and loss of function screens. These approaches are identifying new drug targets and new types of gene dependencies. I will discuss how gain and loss of function screens are finding targets for cancer. In addition, I will discuss newer technologies we have recently adopted such as base editors and high throughput RNA-Seq (CROPSeq). I will discuss how these strategies are being used to identify new variants and genes associated with increased breast cancer risk.



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