



RACP Foundation Research Awards

FINAL REPORT

Project Title	Delivering personalised medicine in advanced prostate cancer using circulating tumour DNA (ctDNA)	
Name	A/Prof Arun Azad	
Award Received	2017 The Servier Staff "Barry Young" Research Establishment Fellowship	
Report Date	7 February 2018	
Chief Investigator / Supervisor	A/Prof Arun Azad	
Administering Institution	Monash University	
Funding Period	Start Date:	1 March 2017
	Finish Date:	1 March 2018

PROJECT SUMMARY

By drawing blood from men with advanced prostate cancer, we have developed a very sensitive test for profiling tiny amounts of cancer DNA released into the blood stream. We can analyse this circulating tumour DNA (ctDNA) and in doing so use it to select better treatment options and improve outcomes for men with advanced prostate cancer.

PROJECT AIMS / OBJECTIVES

Aim 1: To identify genomic aberrations in Australian metastatic castration-resistant prostate cancer (mCRPC) patients using a novel, capture-based, multi-gene ctDNA assay

- We have developed a highly sensitive and specific assay for detecting and profiling ctDNA from men with mCRPC

Aim 2: To facilitate precision medicine for Australian mCRPC patients by matching genomic aberrations identified in Aim 1 to targeted therapies in clinical trials

- We are in the process of collecting plasma samples from men with mCRPC in order to test and validate our ctDNA assay. Once completed, we will then be able to use this assay to deliver personalised treatment options for men with mCRPC.

SIGNIFICANCE AND OUTCOMES

Personalised therapy for mCRPC patients tailored to particular molecular changes in their cancer remains an elusive goal. However, the development of minimally-invasive ctDNA technology allows us to overcome this barrier and deliver personalised therapy for mCRPC patients. This assay will provide a platform for personalised medicine “umbrella” trials in mCRPC, and also to support grant applications for analysing correlative plasma samples for large, multi-centre clinical trials.

PUBLICATIONS / PRESENTATIONS

We will present this work at national conferences later this year and aim to submit our first publication in early 2019.