

## The Partners/Collaborators

- Central Northern Adelaide Renal
- Transplantation Services
- NT Renal Services
- Fiona Stanley Hospital

## Recruitment Sites

### Alice Springs Hospital

Chief Investigator – Dr Sajiv Cherian  
Site Coordinator – Kumari Velandy  
[kumari.velandy@nt.gov.au](mailto:kumari.velandy@nt.gov.au)

### Fiona Stanley Hospital

Chief Investigator – Dr Suda Swaminathan  
Site Coordinator – Natalee Lawson  
[natalee.lawson@health.wa.gov.au](mailto:natalee.lawson@health.wa.gov.au)

### Royal Adelaide Hospital

Chief Investigator – Dr Rob Carroll  
Site Coordinator – Meg Hockley  
[meg.hockley@sa.gov.au](mailto:meg.hockley@sa.gov.au)

### Royal Darwin Hospital

Chief Investigator – Dr William Majoni  
Site Coordinator – Kerry Dole  
[kerry.dole@nt.gov.au](mailto:kerry.dole@nt.gov.au)

*Data suggests that immunosuppressant drug metabolism may be different in Indigenous compared with non-Indigenous Australians.*



**This project has Ethics Approval  
HREC 2014-2284 and CAHREC 16-401**

**Contact:** Gillian Gorham

PO Box 41096, Casuarina NT 0811 Australia

**Phone:** (08) 8946 8529

**Fax:** (08) 8927 5187

**Email:** [gillian.gorham@menzies.edu.au](mailto:gillian.gorham@menzies.edu.au)

**Website:**

[http://www.menzies.edu.au/page/Research/IndigenousHealth/Diabetes and kidney disease/Kidney/](http://www.menzies.edu.au/page/Research/IndigenousHealth/Diabetes%20and%20kidney%20disease/Kidney/)

**Menzies School of Health Research (HQ)**

John Matthews Building (JMB)

Building 58, Royal Darwin Hospital Campus

Northern Territory, Australia 0810



**Comparison of Immunosuppressant Drug Pharmacokinetics in Indigenous versus non-Indigenous Australian Kidney Transplant Recipients  
(PK Study Project)**

**An important difference could exist between Indigenous and non-Indigenous adult kidney transplant recipients. Are we over suppressing?**

## Background

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Indigenous Australians experience worse graft and patient outcomes following kidney transplantation compared with non-Indigenous Australians.

In part this is due to fewer transplants from living donors, poorer HLA matching and greater sensitization to the transplantation base. Indigenous Australians also have an excess of deaths due to infective causes, suggesting other factors are also involved.

## Aims

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1. To examine the way Indigenous Australians process immunosuppressant drugs
2. To investigate the role of genealogy in immunosuppressant drug pharmacokinetics in kidney transplant recipients
3. To Investigate the correlation between serum and saliva levels of mycophenolic acid and prednisolone in Indigenous transplant patients

## Methods

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A study population of 40 Indigenous and 40 non-indigenous (Caucasian) kidney transplant recipients of live or deceased donors will be matched 1:1 based on age, diabetic status, time since transplantation and diltiazem use.

The participant will be asked to come into the renal facility for one visit during which blood and saliva samples will be taken at intervals over 4 hours as well as one urine sample.

These samples will be used to determine the levels of immune response through laboratory analysis.



## Why do this project?

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Pharmacokinetic differences have been found to exist between racial groups, meaning different doses are required for each group. We don't know if such a difference exists between Indigenous and non-Indigenous Australians. If this variance exists it means that Indigenous Australians require new immunosuppressant dosages.

