

**Media release**  
**Friday 29 July 2022**

## **FECRI research find precision medicine strategies have application for Renal cancer patients**

- FECRI researchers have published a paper reviewing strategies used in precision medicine which has application for the treatment of renal cancer patients. ‘Precision Medicine: An Optimal Approach to Patient Care in Renal Cell Carcinoma’  
Revati Sharma, Professor George Kannourakis, Dr Prashanth Prithviraj, Professor Nuzhat Ahmed – Journal: *Frontiers in Medicine* Published: 14 June 2022
- Precision medicine is a way that offers more specific and individualised treatments for patients.
- Renal Cancer is the ninth most diagnosed cancer in Australia for men.

FECRI research team, PhD candidate Revati Sharma, with supervisors Professor George Kannourakis, Dr Prashanth Prithviraj and Professor Nuzhat Ahmed, have published a research paper ‘Precision Medicine: An Optimal Approach to Patient Care in Renal Cell Carcinoma’ in *Frontiers in Medicine*.

The research found strategies used in precision medical treatment, have application for renal cancer patients. Current therapies used for renal cancer patients are not so effective, as most patients treated with a first and consecutive lines of therapies relapse. The manuscript describes recent strategies used in precision medicine (patient specific treatment) have a potential for renal cancer patients.

Kidneys are essential for filtering the blood, by removing excess water and waste products into urine. In renal cancer, cancer cells initially grow in one or both kidneys and can spread to surrounding tissues, adrenal glands, lymph nodes, liver, spreading to other parts of the body, such as the lungs or bones.

More than 3000 people are diagnosed with renal cancer in Australia each year, making it about 3% of all cancers. It is more common in men than women and is the ninth most diagnosed cancer for Australian men. The risk of this cancer increases in people over 50.

The precision medicine strategies used in the manuscript have a great potential in enhancing the success rate of treating renal cancer patients.

Ms Revati Sharma, Federation University PhD candidate at the Institute said on this research “Precision medicine offers more specific and individualised treatments for patients and this work shows the importance of precision medicine in the treatment of Renal Cell Carcinoma patients.”

Institute Director of FECRI, Professor George Kannourakis stated, “This publication is a great example of the relevant and ground-breaking work that the team here at the Institute are doing into the immunology of cancer. Our program is building great momentum and will continue to produce outcomes.”

This research was undertaken with support of the John Turner Cancer Research Funds to Fiona Elsey Cancer Research Institute and in collaboration with the Hudson Institute of Medical Research.

The Institute currently has 5 PhD students and 15 staff with key projects in: Immunology, Breast cancer, Bowel cancer, Ovarian cancer, Chronic lymphocytic leukaemia, Renal cancer, Langerhans cell histiocytosis and Brain tumours.

Recent additional research results include:

- Identification of proteins involved in chemo resistance in Ovarian cancer that can potentially be used as targets to prevent progression and circumvent chemoresistance in patients.
- World first work in describing the behaviour and function of a pregnancy associated plasma protein (PAPPA), in triple negative breast cancer. This research has led to understanding the mechanism for progression of cancer during pregnancy.
- Bowel cancer research team reported discovery on a subset of immune cells in the bowel that can misbehave and release chemical messengers that promote cancer and inhibit other immune cells.
- Identification of a new immune cell subset in histiocytic disorders.

***A video animation summary of the paper available via [YouTube](#)***

***Photo Opportunity***

A photo opportunity with Revati Sharma, Professor George Kannourakis, Dr Prashanth Prithviraj and Professor Nuzhat Ahmed will be available at the Institute as below:

*Friday 29 July, 10: 30am*

*Fiona Elsey Cancer Research Institute*

*Suite 23, 106 -110 Lydiard Street South*

*Ballarat*

***All media enquiries, please contact Sarah Stapleton - Marketing and Fundraising Manager at FECRI on 0475 383 687 or [sarah@fecri.org.au](mailto:sarah@fecri.org.au).***

***Please tag the Institute on all social media using [@fionaelseycr](#)***