

**Media release**

for **Friday 26<sup>th</sup> May 2023**

**New diagnostic marker for Renal cancer patients.**

- Renal cell carcinoma is the cancer of the kidneys, constitutes 2% of global cancers, and is the 10th most common cancer world-wide.
- *New Renal cancer research looking at a multi-marker test for high-risk renal cancer patients whose cancer is likely to spread rapidly within their bodies after initial diagnosis from the Fiona Elsey Cancer Research Institute (FECRI) has been published in internationally recognised Cancers.*

FECRI research team, Dr Revati Sharma, Ali Raza, Dr Ruth Escalona, Professor George Kannourakis, Dr Prashanth Prithviraj and Professor Nuzhat Ahmed have published research into renal cancer in the journal *Cancers- "In Vitro and In Silico Analysis of Epithelial-Mesenchymal Transition and Cancer Stemness as Prognostic Markers of Clear Cell Renal Cell Carcinoma"*.

There is no precise diagnostic marker for the detection of renal cancer in patients. The FECRI team has found a multi-marker test for high-risk renal cancer patients whose cancer is likely to spread rapidly within their bodies after initial diagnosis. The test provides them with the opportunity to undergo targeted therapy immediately after diagnosis.

Renal cell carcinoma is the cancer of the kidneys, constitutes 2% of global cancers, and is the 10th most common cancer world-wide. Kidneys are indispensable organs, as they eliminate waste from our blood, control body fluid, electrolyte balance and blood pressure.

About 65% of renal cancer patients survive for 5 years or more after they are diagnosed if the cancer is confined to only the kidneys. However, this 5-year survival rate decreases if the cancer has spread to other organs beyond the kidneys at the diagnosis.

Dr Revati Sharma, worked on this research at FECRI as part of her PhD said "Using clinical patient data, our research group has shown the development of a multi-marker diagnostic test which can identify high-risk patients whose cancer can spread rapidly to other organs. Patients that have this test, can access more targeted, individualised therapies. This leading to better outcomes for patients."

Institute Director of FECRI and Clinical Oncologist, Professor George Kannourakis stated, "Currently there are limited treatment options for metastatic renal cancer patients. The findings in the paper for the first time shows that a targeted treatment for this group of patients can be achieved early on after diagnoses, with the potential for better patient outcomes."

"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 conducted in collaboration with Dorevitch Pathology.

The Institute currently has 3 PhD students and 17 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:

1. 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.
2. 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.
3. 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.
4. Identification of a new immune cell subset in histiocytic disorders.

[Link to research paper](#)

***Please tag the Institute on all social media using @fionaelseycr***

***Photo opportunity***

***Who:*** Professor George Kannourakis, Director at the Fiona Elsey Cancer Research Institute, Dr Revati Sharma and Professor Nuzhat Ahmed.

***When:*** Friday 26 May, at 12:15pm

***Where:*** Fiona Elsey Cancer Research Institute, Suite 23 Ballarat Technology Park – Central, 106-110 Lydiard Street (Sth), Ballarat

***All other 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).***