

MEDIA RELEASE

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Breakthrough in preventing the spread of Australia's biggest cancer killer in young people

Researchers at the Centenary Institute in Sydney have led a study which has uncovered a brand-new target for melanoma metastasis; providing an improved understanding of how the cancer spreads and opening the door for more effective treatments.

Australia and New Zealand have the highest rates of melanoma in the world. More than 14,000 new cases of melanoma are estimated to have occurred in 2018.¹ Melanoma is the most common cancer in young Australians (aged 15-39), and it kills more young Australians than any other single cancer.

The primary cause of death in melanoma patients is metastasis - the process by which cancer spreads to other areas of the body. While there have been recent advances in targeted and immune-based treatments, advanced stage melanoma remains a clinical challenge with a particularly poor prognosis.

Scientists from the Centenary Institute, in collaboration with 11 other Australian research institutions, have identified a specific protein (called RAB27A) as a key driver of melanoma metastasis. This occurs via the secretion of pro-invasive exosomes; tiny bubble-like structures which are expelled from cells.

During the study, the researchers discovered that silencing the expression of RAB27A reduced a certain population of exosomes delivering pro-invasion messages, which led to reduced metastasis.

Lead author and PhD researcher in Centenary's Immune Imaging Program, Dajiang Guo, says the discovery provides a new way through which researchers can better target and treat melanoma.

"From our findings, we propose RAB27A is a novel prognostic factor, which means it could provide clinicians with a new way to determine a melanoma patient's future health outcome," says Mr. Guo.

"We also believe it could provide a brand new therapeutic target for the prevention of metastasis, which would improve the efficacy of future treatments. This is significant because metastasis is the main cause of death in melanoma patients."

[RAB27A promotes melanoma cell invasion and metastasis via regulation of pro-invasive exosomes has been published in the International Journal of Cancer.](#)

To arrange an interview, please contact: Centenary Institute Media and Communications Manager, Laura Parr, l.parr@centenary.org.au, 0435 530 537

For more information about Centenary Institute, visit www.centenary.org.au

¹ The Australian Institute of Health and Welfare, Cancer Compendium: information and trends by cancer type. Retrieved from <https://www.aihw.gov.au/reports/cancer/cancer-compedium-information-trends-by-cancer/report-contents/melanoma-of-the-skin>