

MEDIA RELEASE

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Research grant to advance ovarian cancer treatment

The Centenary Institute has received vital grant funding from Cancer Australia to lead new research efforts targeting chemotherapy resistance in ovarian cancer patients.

Ovarian cancer, one of the deadliest cancers affecting women worldwide, is a challenging disease to treat. High rates of chemotherapy resistance hinder treatment success and patient survival.

Dr Alex Cole, from the Centenary Institute's Centre for Biomedical AI, will lead the research focused on developing a new treatment to counteract a protein called follistatin (FST), known for making ovarian cancer cells resistant to chemotherapy.

By employing cutting-edge molecular biology and directed evolution techniques, the project aims to create nanobodies—small, precise molecules—that can block FST. If successful, these nanobodies could enhance the effectiveness of chemotherapy and improve ovarian cancer treatment rates.

“We know that chemotherapy triggers increased FST production in the body, which aids cancer cells in resisting treatment,” said Dr Cole.

“Our nanobodies, derived from antibodies and engineered to target and neutralise FST, could potentially make cancer cells vulnerable to chemotherapy again.”

Dr Cole emphasised the critical importance of developing innovative therapies like FST nanobody therapy to improve patient outcomes.

“Chemotherapy is initially highly effective in treating ovarian cancer in women. However, in over 70% of cases the cancer will reoccur, often having developed resistance to chemotherapy, rendering it ineffective,” he said.

The grant, received through Cancer Australia's Priority-driven Collaborative Cancer Research Scheme (PdCCRS) is to be co-funded by Cancer Australia and the Ovarian Cancer Research Foundation and is worth \$199,816.00 over two years.

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Image:

Dr Alex Cole: https://drive.google.com/file/d/1gqiUAaGCrv-zA3r-oRu0BkmWVL_HmGaw/view?usp=sharing

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About the Centenary Institute

The Centenary Institute is a world-leading independent medical research institute, closely affiliated to the University of Sydney and the Royal Prince Alfred Hospital. Our research spans the critical areas of cancer, cardiovascular disease, rare diseases, inflammation, infectious diseases, healthy ageing and biomedical AI. Our strength lies in uncovering disease mechanisms and applying this knowledge to improve diagnostics and treatments for patients.

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