

Developing diagnostics for ovarian cancer

Researchers at Hudson Institute of Medical Research are trialling a new test for ovarian cancer, designed to detect disease at an early stage.

With a lack of screening and early detection tests, ovarian cancer is often not diagnosed until late stages of disease. New diagnostics will be key to improving patient survival.

Summary

Ovarian cancer is the eighth most common cancer overall among women, and the most common cause of death from a gynaecological cancer. Each year, nearly 300 000 women worldwide are diagnosed with ovarian cancer, many at a late stage of disease. Early diagnosis is strongly associated with improved survival.

Considered a “silent killer”, ovarian cancer can progress from early to advanced stages of disease within a year. Symptoms at early stages are non-specific, and often not noticeable until disease has progressed. Patients and clinicians may attribute these symptoms to other causes, resulting in delayed testing and treatment.

As a result, over 70% of women diagnosed with ovarian cancer have later-stage, metastatic disease. By this time, prognosis is poor with a five-year survival rate at stage III of 30% and at stage IV of just 17%. By contrast, if found at stage II, this rate is 70% and up to 90% at stage I.

There is an urgent and unmet need for improved diagnosis and for a simple and routine screening test for ovarian cancer. At present, physical examination, imaging, and CA-125 blood testing may be used to detect abnormalities indicative of ovarian cancer, but definitive diagnosis requires surgery and biopsy. There is currently no screening test available.

Hudson Institute researchers have developed a new test for the detection of ovarian cancer, the Active Ratio Test. Implementation of a test such as this one has the potential to greatly impact upon survival rates, providing patients with an improved diagnosis and hopefully enabling earlier access to treatment.

Development pathway

Our team are currently seeking opportunities for co-investment, licensing or collaboration to further develop this program.

IP position

Provisional patent application filed.

Team

Our team is led by Dr Andrew Stephens, head of the Ovarian Cancer Biomarker research group at Hudson Institute. He is one of Australia’s foremost experts in the field of ovarian cancer research, with a strong background in biochemistry, molecular biology and mass spectrometry, and an established track record in their application to investigate gynaecological disease.

Hudson Institute of Medical Research

Hudson Institute of Medical Research is a leading Australian medical research institute recognised internationally for research into reproductive health and pregnancy, infant and child health, inflammation and cancer. Our research programs span discovery science and translational research, and clinical trials.

Our worldwide scientific and medical collaborations provide a foundation for transformative healthcare programs across the globe, with our researchers leading developments in cell therapies, women’s health, microbiome research, diagnostics, and cancer.

Partnership opportunities include:

- Therapeutics, including oncology and gene therapy
- Reproductive, women’s and children’s health
- Regenerative medicine
- Inflammation and immunology
- Diagnostics and biomarkers

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