

## New discovery to improve success rates of IVF

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(Medical Xpress)—Researchers from the University of Otago, Christchurch, are collaborating with clinicians at Fertility Associates in Christchurch to develop a test to significantly improve the success rate for in vitro fertilisations implantations.

Christchurch <u>obstetrics and gynaecology</u> researcher, Dr Gloria Evans, has just published a paper in the international journal <u>Fertility and</u> <u>Sterility</u> which shows positive results for a test to determine the optimal time to implant a fertilised embryo through IVF.

She has discovered for the first time key biomarkers – or signs - which show when a woman's uterus is 'more favourable' for implantation. If the key biomarkers are not present, then the embryo can be frozen until a cycle with more positive <u>biomarkers</u> can be achieved.

This discovery could have a significant effect in improving the success rate for couples undergoing the emotional and expensive process of IVF.

In collaboration with Fertility Associates Christchurch, Dr Evans now wants to confirm her exciting findings in a larger sample of women and is calling for volunteers.

Evans says currently less than half of fertilised eggs implanted through IVF result in a pregnancy.

Implantation failure, where the woman's uterus is not in an optimal state



to receive a fertilised embryo, is a common reason for IVF failing.

A woman might be taking <u>fertility drugs</u> and be <u>ovulating</u> but pregnancy does not occur.

"The main problem at present is there is a lack of understanding of events at the time the embryo is implanted into the uterus (the window of implantation).

Researchers have been exploring this challenge for some time but have not been able to develop a <u>diagnostic test</u> showing how 'hospitable' the uterus is to implantation.

What Dr Evans has determined for the first time is a <u>laboratory test</u> showing when the uterus is more hospitable for implantation. She and Fertility Associates Christchurch medical director Dr Greg Phillipson will now confirm these findings in a larger sample of women undergoing IVF treatment and fine-tune the test for use in IVF clinics.

"This test will mean that clinicians may be able to determine the best time in the fertility cycle to implant embryos giving women a much better chance of achieving pregnancy."

"If these very encouraging results are supported in this expanded study it would mean a big step forward in assisting couples who are going through the IVF process to try to have a child."

The larger study requires women volunteers from Christchurch, Auckland, Wellington and Hamilton to take a simple test involving a minute sample of tissue from the endometrium or lining of the uterus.

**More information:** Dr Evans says the research team would be grateful if any woman aged 20 - 37 years who has experienced unexplained



repeat miscarriage or IVF procedures without pregnancy occurring or women who require treatment for poor ovulation could contact Fertility Associates 0800102828 or gloria.evans@otago.ac.nz to find out more details about taking part in this ground-breaking study.

Provided by University of Otago

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