

Breakthrough fertility finding for women

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By Health Newswire reporters

A US scientist has identified two new biochemical markers that accurately assess the health of the lining of the uterus.



Boost to determining women's fertility

The finding was made by Dr Harvey Kliman, a research scientist at the Yale School of Medicine, who previously developed a test to determine whether the endometrium was ready for embryo implantation.

An abnormal endometrial function test is associated with pregnancy failure, while a normal result signifies pregnancy success.

In his latest work, Dr Kliman identifies the biochemical markers cyclin E and p27 that more accurately assess endometrial health, compared to the routine examination undertaken by pathology laboratories.

The researchers found the two markers after looking at 33 fertile volunteers, 83 women seeking fertility treatment, and 23 women undergoing mock cycles in preparation for frozen or donor embryo transfer.

They discovered that fertile women expressed cyclin E in their glands up to about cycle day 19 and then did not have any after that. However, infertile women had much more frequently expressed cyclin E well after cycle day 19 and often to the end of their cycles.

They also found that the stroma – which along with the glands makes up the endometrium – was flawed in the way it communicated with the glands in infertile women.

"These findings will help women who have difficulty conceiving become pregnant at a reduced cost," said Dr Kliman.

He draws an analogy between soil being adequate to grow a plant – in which the endometrium represents the soil and the embryo the plant.

"Soil has to be tested and prepared in order for the plant to grow in it. The endometrium also has to be healthy and capable of supplying the appropriate nutrients for the embryo.

"If the right conditions do not exist, implantation will not occur. This test, which uses these new biochemical markers, will improve assessment of the endometrium," he said.

Source: Fertility and Sterility

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