Ovation Fertility AI Research Abstract Selected for Presentation at ESHRE 2025

PARIS, FRANCE, June 30, 2025 /EINPresswire.com/ -- Ovation® Fertility's groundbreaking research on the use of artificial intelligence in embryo selection has been accepted for presentation at the renowned European Society of Human Reproduction and Embryology (ESHRE) 2025 Annual Meeting. The study, entitled "Retrospective comparison of deep learning versus logistic regression for selecting the best embryo for transfer," was featured in a poster presentation at this year's 41st annual conference in Strombeek-Bever, Belgium.

Co-authored by Michael Fanton of California-based Alife Health and US Fertility & Ovation Fertility's Vice President of Scientific Advancement Matthew (Tex) VerMilyea, PhD, HCLD/CC (ABB), the study sought to understand how the performance of a deep learning model compares to a logistic regression model for embryo ranking using prospectively collected embryo images.

"Ovation Fertility has been studying the use of artificial intelligence in embryo selection for several years, and this most recent study helps us fine-tune the use of these tools to improve pregnancy rates for patients using IVF," VerMilyea says. "This study tells us that both deep learning and logistic regression models show promise for identifying the 'most likely to succeed' embryo produced in an IVF cycle. This is good news for patients because AI has the potential to increase the chances the rate of successful pregnancy in single embryo transfers."

The study evaluated 4,543 images and morphology grades of individual embryos from 870 patients at two fertility clinics in the United States. The images were collected prospectively using an embryo image capture software (Alife Embryo Assist) between January and December 2024. With 90% of the embryos already genetically tested, the study's authors used both deep learning and logistic regression models to rank each patient's embryos, testing each model's success in selecting the best embryo for transfer.

The study found that the top-ranked deep learning embryo was transferred in 45% of cohorts, with the top-ranked logistic regression embryo transferred in 76% of cohorts. Transferring the top-ranked embryo by deep learning was associated with an 8.9% higher pregnancy rate. Transferring the top-ranked embryo by logistic regression was associated with a 4.1% higher pregnancy rate. The simplicity and interpretability of the logistic regression may allow for faster adoption and clinical trust, while deep learning may further enhance success rates.

About Ovation Fertility

Ovation Fertility, part of the US Fertility network, is a leading national consortium of IVF laboratories dedicated to advancing reproductive care. Working closely with affiliated physician practices, Ovation leverages cutting-edge, evidence-based fertility treatments to provide hopeful parents with the highest chances of success. Ovation offers a comprehensive range of services, including frozen donor and surrogacy services and secure storage solutions for frozen biomaterials. Together, Ovation and its partners are committed to setting new standards in reproductive medicine. Learn more at https://www.ovationfertility.com.

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