

Identification of the Receptive Endometrium

This patented technology provides a reliable method to determine endometrial receptivity using specific miRNA expression signatures. The invention enables clinicians to identify the optimal timing for embryo transfer and select patients who may benefit from therapies to restore receptivity, significantly improving success rates in assisted reproduction techniques (ART).

Key Features & Technical Details

- **Innovation:** First non-invasive, miRNA-based diagnostic tool for assessing endometrial receptivity.
- **Method:** Detection and quantification of specific miRNA signatures in biological samples (e.g., endometrial fluid).
- **Diagnostic Output:**
 - Receptive endometrium
 - Non-receptive endometrium
- **Validation:** Robust predictive models (AUC ~80–90%).
- **Implementation:** Compatible with qPCR, RT-qPCR, hybridization arrays, next-generation sequencing, and other nucleic acid detection methods.

Applications

- **Clinical Use** in IVF/ART:
 - Precise determination of the implantation window
 - Improved selection of embryo transfer timing
 - Patient stratification for therapies restoring receptivity
- **Diagnostic Kits:** Ready-to-use reagents for fertility clinics and IVF centers.
- **Therapeutic Guidance:** Identify women requiring personalized treatment to enhance implantation success.

Advantages

- Accurate and reproducible
- Higher implantation and pregnancy rates in ART
- Reduces unnecessary embryo transfers and associated costs
- Applicable to large-scale fertility programs

PATENT STATUS

- Patent EP21383049, 2023

STATE OF THE TECHNOLOGY

In vivo Proof of concept on going

Collaboration Opportunities

We are seeking partnerships with:

- Reproduction Clinics with Diagnostics componente
- Clinical Research institutions (for clinical validation in real environment)

CONTACTS

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