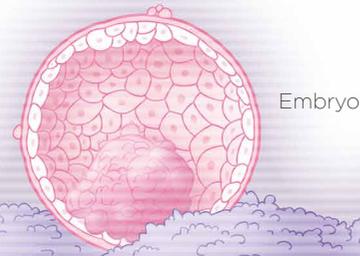


## A complete view of endometrial health

Recent studies led by Igenomix indicate that the endometrium is a key factor for reproductive success.



Embryo

Three tests using only one endometrial sample



### ALICE

Analysis of Infectious Chronic Endometritis

**Detects pathogenic bacteria**

ALICE detects chronic endometritis, a condition affecting 30% of infertile patients that is linked to implantation failure and recurrent miscarriage



### EMMA

Endometrial Microbiome Metagenomic Analysis

**Indicates the endometrial microbiome balance**

EMMA provides information on the proportions of healthy endometrial bacteria, including those linked to higher pregnancy rates. Includes ALICE



### ERA

Endometrial Receptivity Analysis

**Determines the window of implantation**

ERA establishes the time when the endometrium is receptive, and reports the optimal time for personalized embryo transfer

Analyzes:

Endometrial receptivity			✓
Chronic endometritis	✓	✓	
Endometrial flora		✓	

EndomeTRIO ✓✓✓ includes all three tests

**igenomix**  
PIONEERS IN REPRODUCTIVE GENETICS

[www.igenomix.com](http://www.igenomix.com)

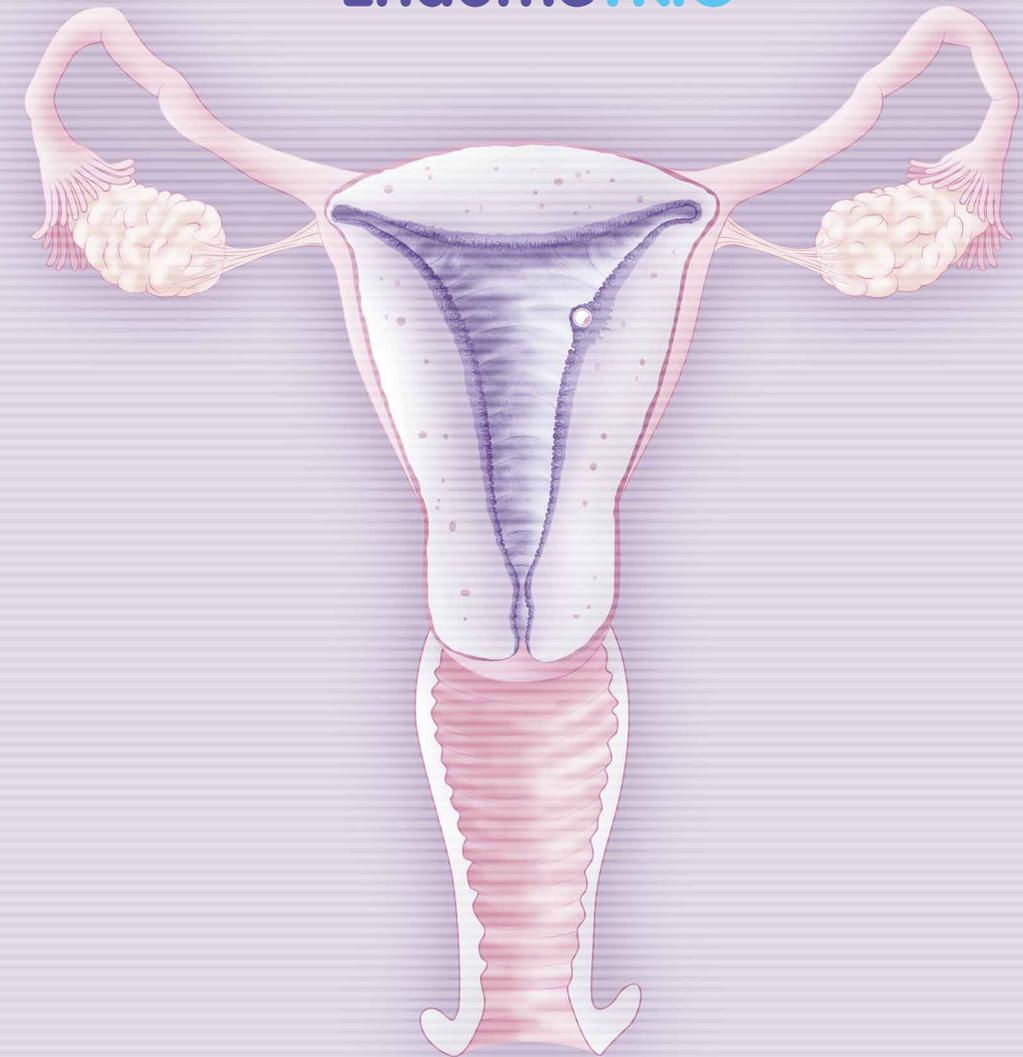
VirtusGenetics

[www.virtusgenetics.com.au](http://www.virtusgenetics.com.au)

For more information phone 1800 837 284

# The endometrium matters

EndomeTRIO



**igenomix**  
PIONEERS IN REPRODUCTIVE GENETICS

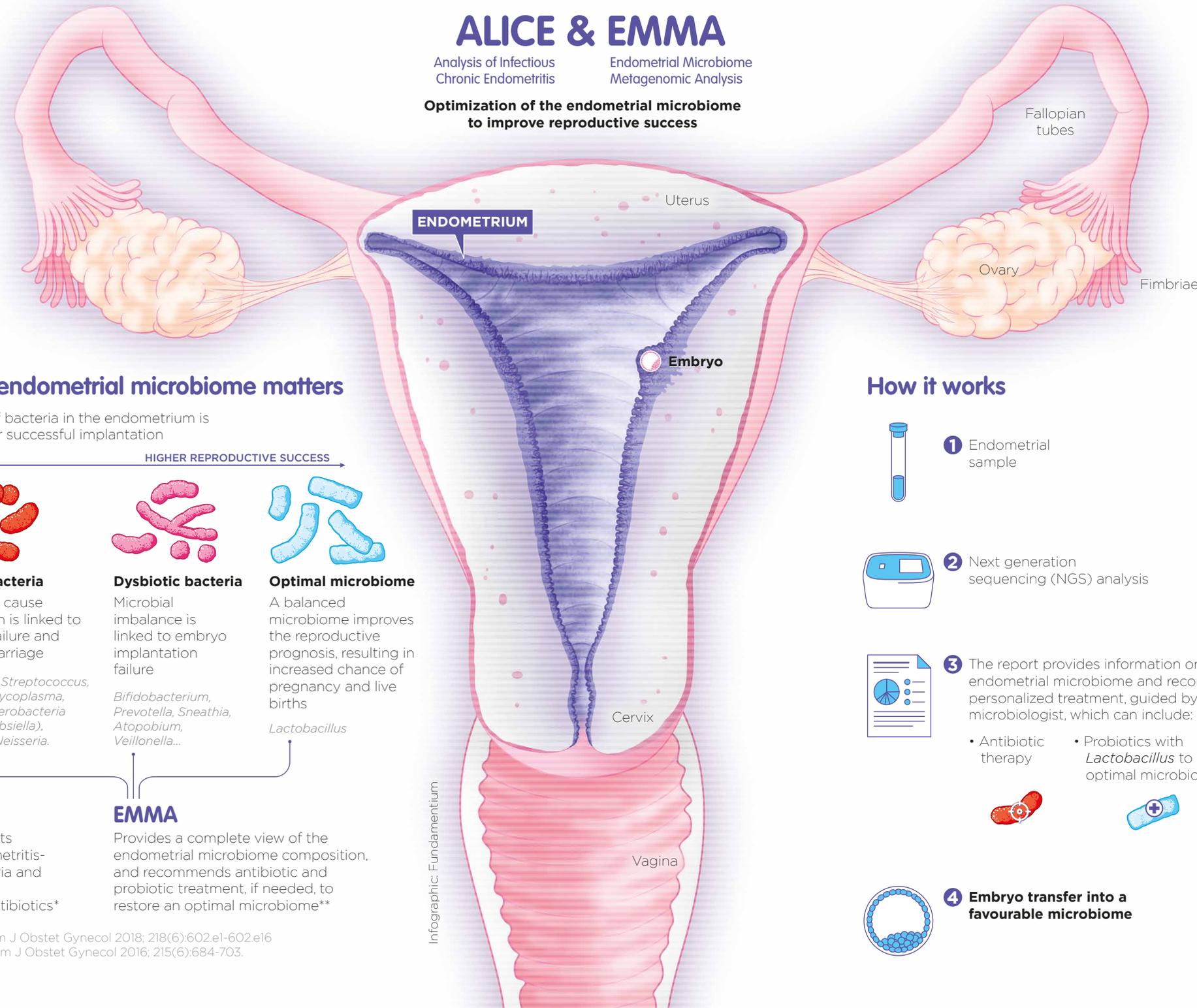
VirtusGenetics

# ALICE & EMMA

Analysis of Infectious  
Chronic Endometritis

Endometrial Microbiome  
Metagenomic Analysis

Optimization of the endometrial microbiome  
to improve reproductive success



## Why the endometrial microbiome matters

The balance of bacteria in the endometrium is a key factor for successful implantation

HIGHER REPRODUCTIVE SUCCESS →



### Pathogenic bacteria

These bacteria cause infection, which is linked to implantation failure and recurrent miscarriage

*Staphylococcus, Streptococcus, Enterococcus, Mycoplasma, Ureaplasma, Enterobacteria (Escherichia, Klebsiella), Chlamydia and Neisseria.*



### Dysbiotic bacteria

Microbial imbalance is linked to embryo implantation failure

*Bifidobacterium, Prevotella, Sneathia, Atopobium, Veillonella...*



### Optimal microbiome

A balanced microbiome improves the reproductive prognosis, resulting in increased chance of pregnancy and live births

*Lactobacillus*

## ALICE

This test detects chronic endometritis-causing bacteria and recommends appropriate antibiotics\*

## EMMA

Provides a complete view of the endometrial microbiome composition, and recommends antibiotic and probiotic treatment, if needed, to restore an optimal microbiome\*\*

\*Moreno et al. Am J Obstet Gynecol 2018; 218(6):602.e1-602.e16

\*\*Moreno et al. Am J Obstet Gynecol 2016; 215(6):684-703.

Infographic: Fundamentium

## How it works

- Endometrial sample
- Next generation sequencing (NGS) analysis
- The report provides information on the endometrial microbiome and recommends personalized treatment, guided by a clinic microbiologist, which can include:
  - Antibiotic therapy
  - Probiotics with *Lactobacillus* to restore an optimal microbiome
- Embryo transfer into a favourable microbiome

## ERA Endometrial Receptivity Analysis

More than 32,000 women in 70 countries have been tested by ERA. This test determines the window of implantation - the precise time when the endometrium is receptive. The ERA test resulted in a 73% pregnancy rate in patients with implantation failure.



### 1 Window of implantation

The time when the endometrium is receptive to the embryo

Pre-receptive: before day 19

**Theoretical window:** normally between days 19 and 21 of the cycle

Post-receptive: after day 21

### Unknown date

The window of implantation is not the same for all women. Around 35% of women with recurrent implantation failure are pre-receptive or post-receptive during this theoretical window

### 2 Genetic analysis

A predictive genetic analysis model of 248 genes to detect endometrial receptivity



### 3 Report

The results indicate the optimal time for embryo transfer

**Personalized window of implantation**



### 4 Personalized embryo transfer

Performed at the optimal time

\* Ruiz-Alonso et al. Fertil Steril. 2013

\* Clemente-Ciscar et al, 2018, submitted