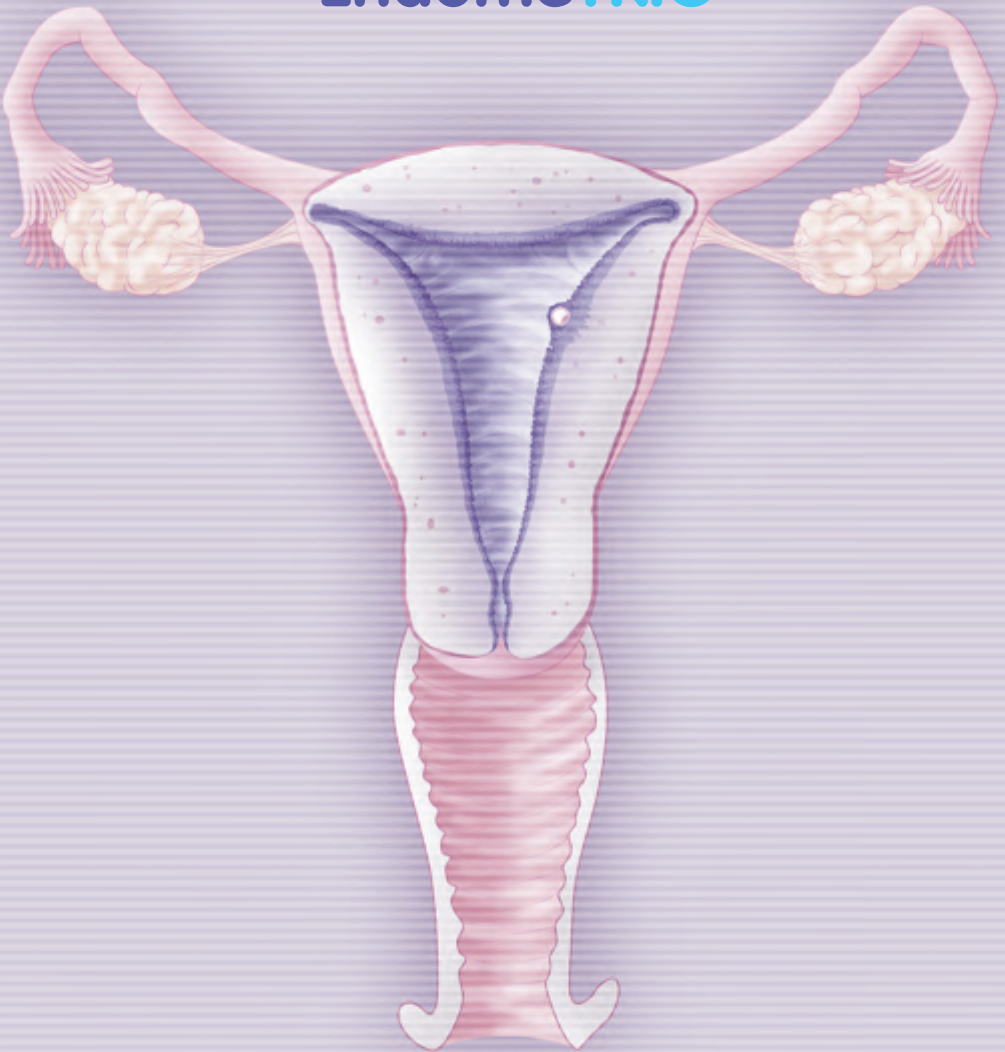


The endometrium matters

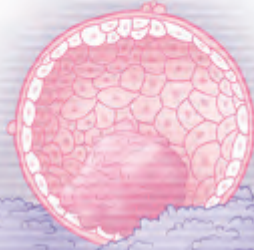
• EndomeTRIO



igenomix
PIONEERS IN REPRODUCTIVE GENETICS

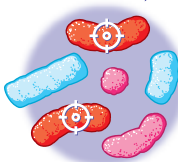
A complete view of endometrial health

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



Embryo

Three tests using only one endometrial sample

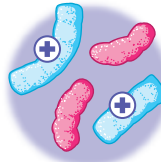


ALICE

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

ALICE & EMMA

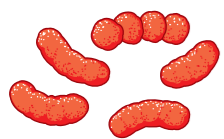
Analysis of Infectious Chronic Endometritis Endometrial Microbiome Metagenomic Analysis

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

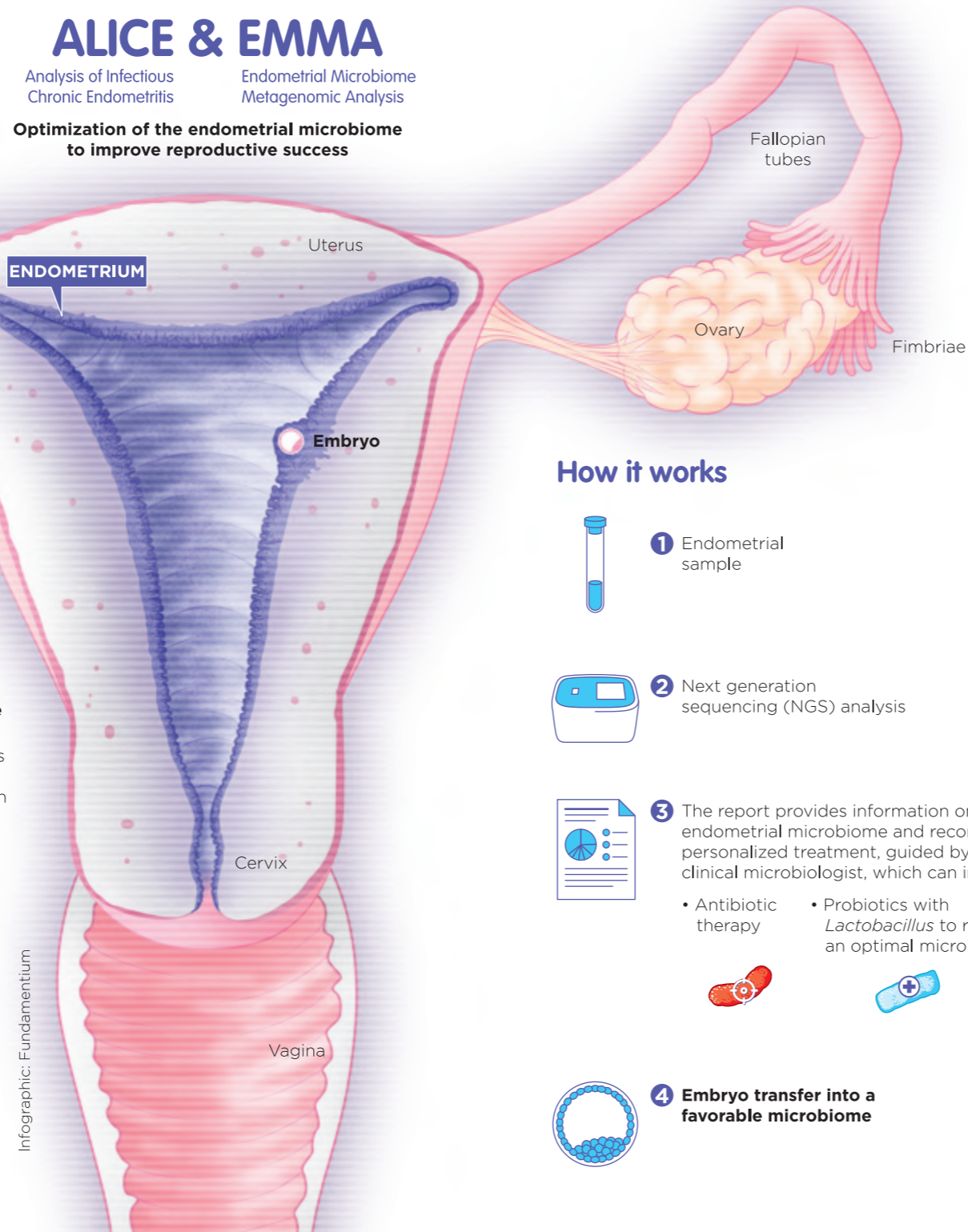
This test detects chronic endometritis-causing bacteria and recommends appropriate antibiotics*

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

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



www.igenomix.com