

Uterine immune profiling is proposed for women experiencing

- Embryo implantation failures (no implantation despite the transfer of several embryos of good quality)
- Repeated unexplained miscarriages (more than 3 miscarriages)

Endometrial biopsy must be performed in the mid luteal phase to be valid either in natural cycle 7 to 11 days after the LH surge or under hormonal replacement therapy after 5 to 9 days of progesterone (mock cycle).

The purpose of this test is to document the immune environment of the uterus during the receptive period of the cycle (i.e. when the endometrium is susceptible to allow the implantation of an embryo, or *the implantation window* during mid luteal phase). This assessment is based on the diagnosis of a local immune imbalance which may interfere with the embryo implantation. The identification of the immunological mechanisms involved is based on the quantification by molecular biology of endometrial biomarkers (specific cytokines and modulators) regulating uterine immune cells. Given these data, you may consider to modulate and personalize your patient's next treatment to counter the potential identified local immune imbalance.

We recommend performing the biopsy in a HRT cycle. An endometrial biopsy must be taken reproducing the same condition that will have the embryo transfer.

Modality to prepare the sample to send

- Fill in the information form and the consent form

All the procedure should be performed with gloves to avoid DNA contamination:

- Fill in the white stick-on label with the patient's name and date of birth
- Stick the label on the cryotube containing the RNA later
- Perform classically the endometrial aspiration with the Cormier pipelle
- Place your biopsy on a sterile pad (furnished) to discard mucus and blood
- Place the endometrial biopsy in the labelled vial containing the RNA later, then in the little plastic bag, then in the box for transport. 30 to 50 mg of endometrial tissue are sufficient

In the supplied pre-labelled envelop with the address of Matricelab in Paris, place

- The box for transport
- The information form
- The consent form
- A copy of serology

You may then send the sample at room temperature if shipment is made in express

Alternatively, the sample can be kept in the fridge for one week until the moment of shipment- the sample can then be shipped at room temperature.

For shipment during the summer, it is recommended to add an ice pack

We can't proceed biopsies from patients whom serologies are positive for HIV, hepatitis B (Ag HBs, Ac HBc and Ac HBs) and hepatitis C. A copy of these serologies (less than one year old) will be required.

Cost of immune uterine profiling is 500 euros. Your patient will be contacted by mail at reception of the sample when RNA extraction would have been successfully done for the payment by bank transfer. We will then proceed to the real time PCR

Results will be sent by email under 3 weeks from the date of the biopsy receipt.

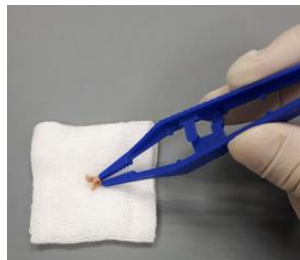
We will detail the immune mechanism if a deregulation is diagnosed as well as the options of personalization to counteract the deleterious disequilibrium.

You can visit our website for further explanation (address below):<http://www.matricelabinnove.com/>

Schema for sending each endometrial sample

⚠ Incomplete data lead to delayed treatment of patient samples
 (Telephone, Email, Serology less than 1 year, Clinical information ...)

1st step



Realize the biopsy 5 to 9 after the ovulation or after the beginning of progesterone (mock cycle). Take 1 cm of endometrium

2nd step (in case biopsy was realized in a natural cycle)



Divide the sample in two parts:

- For **MatriceLab Innove**
- For **Centre de Pathologie** (for histological datation)

MatriceLab Innove

Centre de Pathologie

(If biopsy was realized in a natural cycle)



3rd step

Immerse the biopsy in the tube. Close the tube securely

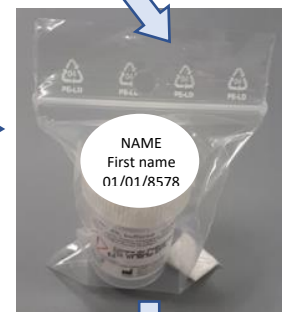


4th step

1) **Write on the label or on the tube**

- NAME (same on tubes and document), First name
- Date of birth

2) **Put the tube in the plastic bag with its absorbent paper** (following the packing instruction P650 ONU 3373)



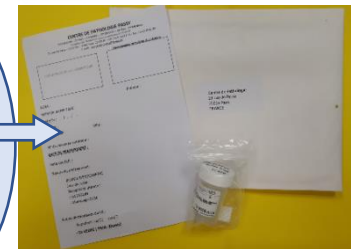
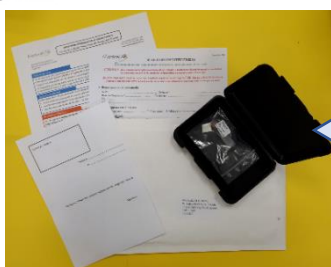
5th step

Fullfill and/or sign for each sample:

- The Information Form
 - The Consent Form
 - The Medical Prescription form
- + a copy of negative serology -1year old**
Rq : Don't forget tel N° + email patient and yours

Matricelab Innove

Centre de Pathologie



The analyses report will be sent within 3-4 weeks from the day of the reception of the biopsy and the complete file.