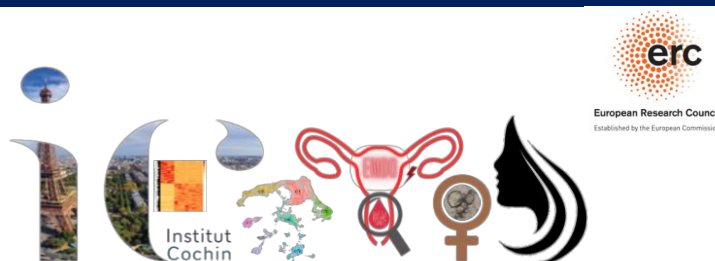


Titre du poste / Job title :

ERC funded Postdoctoral Position in computational biology for the study of menstrual blood in the context of endometriosis



ERC funded Postdoctoral Position in computational biology for the study of
menstrual blood in the context of endometriosis,
Institut Cochin, Université Paris Cité, France

A postdoctoral fellowship for 18 months is available as early as April 2026 at [Institut Cochin](https://www.institutcochin.fr/en), a biomedical research center in Paris (France) affiliated to the Health Faculty of Université Paris Cité. This project, part of an ERC funded project entitled "Menstrual fluid multi-omics analysis to better diagnose, understand and treat endometriosis", coordinated by [Ludivine Doridot](#), aims to use computational biology to better understand endometriosis pathophysiology, through the analysis of transcriptomic data generated from menstrual blood of women with and without endometriosis, in order to identify potential biomarkers of this common underrecognized gynecological disease.

Context

Endometriosis is a heterogeneous gynecological disease affecting around one woman in ten, that takes around 8 years to be diagnosed. The main symptoms are pelvic pain (cyclical and/or chronic) and pain during intercourse. Furthermore, affected patients may have fertility issues and are at increased risk of miscarriage. Endometriosis is defined by the presence of endometrium-like tissue outside the uterine cavity, called lesions. Retrograde menstruation (menstrual fluid going through the fallopian tube into the peritoneal cavity) is hypothesized as key in the pathogenesis. Endometrial and immune abnormalities are probably also at play. Our goal is the identification of candidate biomarkers of the disease in menstrual blood from women with and without endometriosis, as it contains all key cell types. Despite its relevance, menstrual fluid was mostly ignored as a biological fluid of interest for women's health.

We generated single-cell proteogenomics and transcriptomics datasets from the menstrual blood of donors and the applicant will be responsible for part of their analyses as well as the development of supervised machine learning algorithms in order to find and prioritize biomarkers of interest.

Institut Cochin provides a highly dynamic scientific life between fundamental and clinical research in the center of Paris (<https://www.institutcochin.fr/en>), with around 600 people. The postdoctoral fellow will work in the [group of Ludivine Doridot](#) from the team "Pathogenesis and innovative therapies in chronic fibro-inflammatory diseases", and will benefit from the expertise of the state-of-the-art core facilities (Genomics/NGS, Bioinformat'IC).

Job description

The recruited post-doctoral fellow will be in charge of analyzing available single-cell proteogenomic datasets in collaboration with an experimental biologist postdoctoral fellow. He/she/they will also be in charge of the integration of bulk RNAseq datasets from isolated cell type with clinical data to prioritize biomarker candidates through the use of deconvolution and/or machine learning algorithms. The fellow is expected to interpret and criticize his/her/their own results, to write scientific articles and perform oral presentations in local, national and international meetings, as well as to help train younger fellows (notably master and PhD students). Furthermore, the fellow will have the opportunity

to develop his/her/their own approach within the field (woman reproductive health and/or sex bias in immune response).

Keywords

Endometriosis, biomarker, diagnosis, transcriptomics, Single cell profiling

Candidate profile

- PhD in computational biology or related field.
- Strong experience in computational biology and demonstrated skills in single cell transcriptomics analysis from human data are required.
- Experience in bulk transcriptomics, deconvolution methods and predictive algorithms are a plus.
- Rigorous, dedicated, innovative and autonomous. Good communication skills that allow productive collaboration with our interdisciplinary team (experimental and computational biologist, Medical doctors). Ability to communicate in both spoken and written English.
- Prior experience in the field of gynecology, endometriosis or reproduction is **not** mandatory.

Availability, type and duration of the contract

- 18 months, as early as May 2026.
- Fixed-term employment (CDD), project funded by the ERC (European Research Council)
- Salary level determined according to experience following internal guidelines, i.e. according to experience. Exceptional skills may be considered.

How to apply

- Motivation letter, CV and two reference letters (or contact information) should be sent to ludivine.doridot@inserm.fr
- For the subject line, please use "MultiMENDo Postdoctoral fellowship application 2026"
- Any questions regarding this position can be sent to this e-mail address.
- Application deadline: March 26