Vall d'Hebron
Institut de Recerca
VHIR

CEMARK: Diagnostic markers of endometrial cancer

The present invention provides a method of diagnosis of endometrial carcinoma and kits for the diagnosis of the disease using an isolated fluid sample from the female genital tract.

TECHNOLOGY OFFER
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The need

Endometrial cancer (EC) is the seventh most deathly cancer in women, responsible for 73,854 deaths every year worldwide. Early and accurate detection is an important contributor to survival. Current diagnostic procedures rely on a subjective pathological examination of an endometrial biopsy, which fails to give diagnosis in 22% of patients. Therefore, improving diagnosis is an critical unmet clinical need.

The solution

The present invention (CEMARK) describes a set of robust protein biomarkers in uterine fluid samples to diagnose and preoperatively stage EC, in a more efficient and accurate manner compared to current diagnostic methods. CEMARK will be introduced as an easy, quick and less costly diagnostic kit. Its implementation in a routine basis will prevent overdiagnosis (no need to perform invasive biopsies).

Innovative aspects

- CEMARK uses uterine fluid samples, which are obtained by aspiration using a Pipelle device. This sampling is a **minimally invasive sampling**. We aim to reduce complications associated to invasive samplings and the need of a hospital environment.
- CEMARK is based on the **identification of soluble proteins**, so there is no need of cellular representation. This fact will overcome the 22% of diagnostic failure rate associated to inadequate sampling of the current diagnostic process. We aim to improve the accuracy and fasten the diagnostic process.
- The kit is developed as an **ELISA kit, a quick, easy and economical platform** widely available in hospitals. We expect an easy implementation in the clinical scenario.

IP:

- Priority EP Patent filed in May 2016 (EP16168328.9).
- Patents rights up to 2036.

Stage of development

- Verification (n=38) and validation (n=107) phases performed by targeted proteomics using LC-PRM technology. Done.
- Technology transfer to ELISA is ongoing. High correlations between LC-PRM and ELISA. Expected end date 2016.
- Development of classifiers is ongoing. Expected end date mid 2017.
- Multi-centric validation. Expected in 2017-2018.

Market

- The end-user are gynaecologists.
- The target market are women presenting abnormal vaginal bleeding that enter in the diagnostic process of EC. Among those, only 5% will suffer from EC. Market is estimated in almost 2 M women in Europe every year (Globocan, 2012).

WE ARE LOOKING FOR...

Collaboration with diagnostic companies in the field of oncology or diagnostic kits to further develop the technology through a co-development or license agreement.

CONTACT DETAILS

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