Assay for Diagnosis of Ovarian Cancer

diagnostic kit, antibody-based proximity extension assay (PEA), immunoassay (ELISA), ovarian cancer (OC), biomarkers, early stage diagnosis of OC, prognosis of OC, monitoring of OC recurrence

DESCRIPTION OF TECHNOLOGY

Ovarian cancer (OC) is a malignant tumour of the ovaries or fallopian tubes and is the most fatal gynaecologic tumour. This technology utilizes new biomarkers in plasma or peritoneal fluid for the diagnosis or prognosis of ovarian cancer.

The concentration of these biomarkers can be measured by an antibody-based proximity extension assay (PEA), alternatively by ELISA-based techniques, or by antibody- or aptamer-based microarrays.

APPLICATION FIELDS

One application field of the technology is the diagnosis of ovarian cancer (OC), especially in early stage patients. Another application field is the monitoring of OC patients during or after treatment.

AT A GLANCE …

Application Fields

- Diagnosis of early stage ovarian cancer
- Prediction of prognosis in OC patients
- Diagnosis of relapsed ovarian cancer

Business

- Medical laboratories
- Biotech companies
- Physicians

USP

- New identified biomarkers for ovarian cancer (OC)
- Reliable non-invasive diagnostic method for ovarian cancer
- Diagnosis of early stage ovarian cancer
- Monitoring of ovarian cancer recurrence

Development Status

- Technology is established in antibody-based proximity extension techniques (PEA)
- Technology is established in SOMAscan® Proteomic Assay

Patent Status

Priority application filed at the European Patent Office. International patent application (PCT) is possible.

REFERENCE NO. TM 1063
ADVANTAGES OVER THE PRIOR ART

This new technology improves the diagnosis of ovarian cancer (OC) by solving the following tasks:

- Diagnosis of early stage ovarian cancer
- Detection of recurrences during or after treatment of ovarian cancer (staging)
- Control of therapy efficacy in patients with ovarian cancer, including anti-angiogenic and immune therapies

STATE OF THE PRODUCT DEVELOPMENT

The product is an antibody-based proximity extension assay (PEA) or ELISA. The product includes a calculation of multi marker scores, which can be applied easily by physicians. The product could be implemented in the guidelines for the diagnosis and treatment of OC.

MARKET POTENTIAL

Ovarian cancer is one of the most common diseases in females with approximately 239,000 diagnosis and 152,000 deaths per year worldwide (Brett et al., Cancer Biol Med 2017). The highest incidence is in Middle and Eastern Europe with 11.4 cases per 100,000 women. Since there is currently no suitable method for the reliable diagnosis of ovarian cancer in blood samples the inventive method has an enormous market potential for the early detection of both primary and relapsed OC as well as for monitoring therapy efficacy.

COOPERATION OPPORTUNITIES

On behalf of its shareholder Philipps-Universität Marburg TransMIT GmbH is looking for licensees or cooperation partners for further development in Europe.