Research Proposal

T2EDK-01371 Mi-IVF

Development and Commercialization of a microbiome-based prediction test for in vitro fertilization.

The enterprise Cellular and Molecular Immunological Applications (CeMIA SA) in cooperation with AKESO-Embryo a.r.t has joined the Single RTDI State Aid Action "RESEARCH - CREATE - INNOVATE" funded by the Operational Program Competitiveness, Entrepreneurship and Innovation 2014-2020 (EPAnEK).

The measure aims to support research and innovation, technological development and demonstration at operating enterprises for the development of new or improved products, the development of synergies among enterprises, research and development centers and higher education sector as well as to support the patentability of research results and industrial property.

In that context, the main objectives of the measure are:

- Economic development based on knowledge and sustainable specialization;
- Integration of new knowledge and innovation to existing and new products, services, production systems and value chains;
- Connection of academic research with market needs and economy.

The Action is co-financed by Greece and the European Union - European Regional Development Fund.

AIM

Mi-IVF aims at developing, applying and commercially exploiting personalized medicine products that will serve as predictors of IVF outcomes in the Greek population. The proposed microbe-genetic and immunological test will be based on biomarkers that will emerge from the comparative analysis of the endometrial and vaginal microbiomes and natural antibodies of women with successful versus those with unsuccessful implantation outcomes during IVF. The biomarkers that will emerge from this study will be used to develop an advanced prognostic test that will significantly improve the quality of healthcare provided to couples undergoing IVF. In the long run, the results from the Mi-IVF project will be used for the selection of suitable dietary and/or therapeutic interventions in order to maximize IVF success rates.

Mi-IVF will capitalize on the results from the proposed research activities and the competitive advantage of the participating companies, in order to develop novel, cutting-edge products and services in the field of IVF. These are anticipated to have a major, direct impact on the quality of IVF services and the competitiveness of the participating SMEs at a national and international level, ultimately leading to significant financial benefits both for the National Healthcare System and Health Tourism in Greece.





