



INTELLECTUAL PROPERTY RIGHTS

The device, co-ownership of IIS La Fe and Maastrich University, is registered in EPO by a European Patent EP18248213, with application date December 28th, 2018. Currently it is in international PCT extension



CURRENT STATE OF DEVELOPMENT

The development is in level TRL 4/5. The technology has been tested in a cohort of 150 patients, obtaining a specificity of 80%. The next step will consist of the clinical validation of the test, for which a collaboration has been established with other hospitals for the recruitment of patients.



MARKET APPLICATION SECTORS

The market application sector is either public or private healthcare systems. MIRCATOX can become a diagnostic test for cancer patients awaiting treatment.



COLABORATION SOUGHT

We seek a company in the field of diagnostic kits, for the patent license and its commercialization..

DESCRIPTION OF THE TECHNOLOGY

MIRCATOX is a miRNA based signature capable of predicting cardiotoxicity caused by anthracyclines, a major component of chemotherapy. Anthracyclines are common anti-neoplastic drugs used for the treatment of breast cancer after resection of the tumor (adjuvant therapy). The effectivity of this drug is undermined by several collateral cardiac toxicity due to the induction of oxidative stress effects including (generation of ROS species) in the cardiomyocyte that in some patients lead to a fatal cardiac dysfunction years after the drug treatment.

This signature of miRNAs can be used in a diagnostic test of cardiotoxicity. Circulating miRNAs can be detected in serum or plasma from healthy donors and patients by qPCR, so samples necessary for test can be obtained easily and the test can be included in the usual analysis performed to patients. MIRCATOX can obtain a predictive value for cardiotoxicity in response to anthracyclines as a result of measuring the number of copies of a combination of circulating miRNAs in cancer patients waiting for treatment.



ADVANTAGES

- ✓ The only genetic test that predicts anthracycline cardiotoxicity before providing treatment to the patient.
- ✓ It minimizes the cost of future treatments and represents a saving for the health system.
- ✓ Helps preventing heart disease caused by anticancer treatment.