

FIBICO –Panel of microRNAs as biomarkers of non-segmental vitiligo.

Abstract

A research group from the Andalusian Public Health System (SSPA) has developed an invention for the use of microRNAs in the diagnosis and prognosis of non-segmental vitiligo.

Description

Non-segmental vitiligo is an immune-mediated inflammatory disease that causes apoptosis of melanocytes and the consequent loss of skin pigmentation in the damaged area. With a prevalence of 0.5-2%, it is estimated that in Spain there are some 900,000 people affected. It entails a significant decrease in the quality of life due to the alteration of one's own body image and the fact that it is frequently associated with other immune-mediated diseases.

There are still no specifically targeted treatments available in clinical practice with sufficient efficacy and safety. We have recently identified a group of 90 micro RNAs (miRNAs) whose expression is decreased in tissue and plasma compared to healthy people. These differences lead to a dysregulation of immunological and metabolic pathways previously related to the disease, so these miRNAs could be a good marker of disease severity and prognosis, as well as monitoring therapeutic response long before repigmentation occurs. The present proposal is based on such knowledge.

That is, it implies the application and transfer to a technological tool of a previously obtained predictive model, which is based on the determination of skin or plasma levels of 6 miRNAs. Once the project is finished, it is expected that the prototype validated in the laboratory of a kit for the prediction of progression to severe forms and response to treatment will be obtained.

Advantages

- It can be performed with a peripheral blood sample, a more objective, reproducible and minimally invasive examination.
- The method of the invention can also be used as a molecular predictor of the therapeutic response to different treatments against non-segmental vitiligo.

Industrial/ intellectual protection

This technology is protected by national patent.

Objective of the Collaboration

Seek a collaboration that leads to the commercial exploitation of the invention presented. The terms and conditions of the license agreement can be discussed openly if the technology presented is of interest.

Classification

Activity/Type: Dermatology

Pathology: non-segmental vitiligo

Representative Institution and Inventor

The principal investigator behind the innovation is Juan Alberto Ruano Ruiz, a researcher in the GC29 group Immune-mediated skin inflammatory diseases.

The development of the project has been possible thanks to the Andalusian Health Service and the University of Granada.

Contact information

Fundación para la Investigación Biomédica de Córdoba (FIBICO)

Edificio IMIBIC, Avda. Menéndez Pidal s/n, 14004 Córdoba

Luis M. Fernández Formoso | Head of Unit – Innovation and Technology Transfer: luism.fernandez@imibic.org