



**Proyecto CPP2022-009996 financiado por MCIN/AEI /10.13039/501100011033 y por la Unión Europea NextGenerationEU/ PRTR**

**Identificación del proyecto:**

Dana Medical Precision Plus (DMP+), eHealth para la medición y mejora de la salud mental de las mujeres en matrescencia

**Descripción del proyecto:**

Thousand Colibris S.L. is a company founded in 2020 based in Barcelona committed to health and with a strong vocation to impact society, focused on the development of digital solutions for mental health. In the present project it will work first hand with NutriSaM, VHIR and IMIM.

**Problem:** Mental disorders are becoming one of the major health problems in today's society, which are aggravated in the case of women who are and are going to become mothers. Worldwide studies affirm that 90% of women who are going to become mothers experience mood disorders such as anxiety, fear, loneliness or guilt during the perinatal period. In 1 in 5 cases these mental disorders worsen and lead to serious mental disorders such as post-traumatic stress disorder, psychosis, suicidal ideation or postpartum depression. However, 75% of women with perinatal mental disorders are underdiagnosed and do not receive adequate treatment, either due to lack of detection or lack of support in health systems, with the consequent impact on the health and well-being of the mother, her family, the child and ultimately on society.

**Solution:** Dana Medical Precision Plus will be developed in this context. It is a medical software that uses biomarkers and wearable devices to detect, diagnose and monitor mental health disorders in mothers from the postpartum period to two years postpartum. The project provides an electronic healthcare solution with predictive capabilities for those women with mental health disorders, based on behavioral models generated through various objective data sources.

The solution aims to introduce a disruptive framework that engages interdisciplinary teams in a single process, including healthcare providers, data science specialists, wearable technology experts and biomarkers. This framework will maximize the effectiveness of therapies and the value of the data collected. By utilizing biomarkers and wearable devices, Dana Medical Precision Plus aims to overcome the limitations of traditional subjective methods and provide objective and accurate information for the early detection and treatment of mental health disorders in mothers.

**Value:** Dana Medical Precision Plus enters the field of Artificial Intelligence, with the creation of its own objective models based on machine learning algorithms for advanced analysis of biomarkers and data provided by wearables. In the area of Big Data, Dana Medical Precision

Plus will incorporate prescriptive analytics that will allow predicting, diagnosing and monitoring mental health disorders in mothers from birth to two years of baby's life.

This project focuses on achieving a set of biomarkers and objective data collected by wearable devices that validate and train the algorithm model, including studies that confirm its validity at the medical level. The consortium assembled for this project is formed by professionals with a high level of academic and business training and extensive experience, committed to health and a strong vocation to impact society.

Conclusion: The main business model of Dana Medical Precision Plus focuses on a Software as a Medical Device model aimed at the healthcare system. The purpose of the project is to provide an objective, biomarker and wearable based solution to detect and monitor health disorders in mothers during the postnatal period, thus improving the health of mother and child. In addition, the project involves highly trained and experienced professionals in the field of maternal health, as well as in data analysis and technology. In summary, Dana Medical Precision Plus will provide healthcare professionals with an innovative and scalable technological solution to improve their capacity, efficiency and standardize current protocols for screening and monitoring postnatal mental health disorders in mothers.

**Financiación: AGENCIA ESTATAL DE INVESTIGACION**

**116.369,08€**

**Este proyecto está cofinanciado por la Unión Europea NextGenerationEU/ PRTR**