CNIC joins GRACE, a European project aimed at transforming cardiovascular care through innovation and collaboration

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The CNIC has been allocated €405,625 for its involvement in GRACE, a project focused on developing innovative strategies to improve the detection and management of cardiovascular diseases.

The Centro Nacional de Investigaciones Cardiovasculares(CNIC) has been allocated €405,625 for its involvement in GRACE (Growing, Reaching, Advocating for Change and Empowerment), a European project aimed at transforming cardiovascular care through innovation and collaboration. Co-funded by the Innovative Health Initiative (IHI), GRACE will run for 54 months and has a total budget of €19.6 million.

The CNIC's participation will be led by Dr. Borja Ibáñez, CNIC Scientific Director, cardiologist at Fundación Jiménez Díaz, and a group leader in the Spanish cardiovascular research network CIBERCV

. “The CNIC will bring its experience in leading clinical trials in the areas of coronary artery disease and the cardiac microcirculation, as well as its extensive knowledge on the use of cardiac magnetic resonance as a key diagnostic tool for cardiovascular diseases.”

World Health Organization data show that cardiovascular diseases cause 17.9 million deaths every year, and this figure is projected to grow to 22 million deaths by 2030.

This group of diseases, which includes coronary artery disease, heart failure, and atrial fibrillation, significantly impairs patient quality of life and places a large economic burden on healthcare systems.

The CNIC’s contribution will center on coronary microvascular disease, an underdiagnosed condition also known as microvascular angina. Dr. Ibáñez explains that, “many patients experience symptoms of chronic angina, yet catheterization studies reveal no evidence of coronary artery obstruction, a condition known as ischemia with no obstructive coronary arteries (INOCA). We know that the problem often lies in the microvessels supplying the heart muscle; however, diagnosing microvascular disease is complex and can only be accomplished in centers equipped with the technological capacity for advanced invasive studies.”

CNIC scientists have developed an innovative magnetic resonance methodology that can detect these alterations non-invasively. Within GRACE, the diagnostic efficacy of this method will be tested in angina patients through a CNIC-led international clinical trial including centers in Spain, the Netherlands and Germany.

Under the coordination of Dr. Borja Ibañez, the CNIC will contribute to GRACE’s key focus areas of angina, atrial fibrillation, heart failure, aortic stenosis, and diagnostic tools such as cardiac magnetic resonance

Dr Ibañez underlined that, “Placing magnetic resonance imaging at the center of coronary artery disease diagnosis will simplify the complex care pathway, which currently involves numerous diagnostic procedures and interventions that often yield inconsistent results.”

The goal of GRACE is to develop innovative, scalable, and sustainable solutions to drive innovation in cardiovascular disease management. To achieve this, the project will not only leverage magnetic resonance imaging but also utilize advanced technologies to enhance early detection and diagnosis through portable devices, empower patients with personalized digital interventions, optimize healthcare resources, support medical professionals with decision-making systems, and accelerate the adoption of scalable and interoperable technological innovations.

In addition to the CNIC-led study, the CNIC will participate in four other European pilot studies in GRACE focused on improving the management of atrial fibrillation, heart failure, aortic stenosis, and cardiac surgical processes. These studies will explore ways to leverage advanced technologies, remote monitoring, optimized protocols, and personalized approaches to enhance diagnosis, treatment, and recovery. Each study will evaluate the clinical, economic, and social impacts of the interventions tested, ensuring that GRACE delivers tangible benefits for both patients and healthcare professionals.

The project brings together 25 strategic partners spanning academia, healthcare, industry, and patient advocacy. Participating organizations include leading hospitals, universities, research institutes, and medical technology companies. With participants in Spain, France, Italy, the Netherlands, Germany, the United Kingdom, Israel, and South Korea, GRACE will validate its findings across diverse healthcare systems to ensure broad impact and scalability.

As part of the Project GRACE consortium, the CNIC will play a key role in the research and development of innovative methodologies to improve the diagnosis, treatment, and prevention of cardiovascular diseases, strengthening Spain’s leadership in this field.

Summing up, Dr. Ibañez says, "Technology has revolutionized biology and medicine. Now is the time to focus on the unmet needs of global public health. GRACE will concentrate on adopting innovative

technologies to enhance the management of cardiovascular diseases, bridging the gap between innovation and its integration into healthcare services, and ensuring safer, more efficient, and sustainable solutions."

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