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## FOREWORD AND CNIC MISSION

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The Centro Nacional de Investigaciones Cardiovasculares (CNIC) is a biomedical research center funded through a pioneering public-private partnership between the Spanish Government and the Pro CNIC Foundation (composed of eleven Spanish companies unrelated to the biomedical sector). The CNIC is a Severo Ochoa Center of Excellence of the Spanish Ministry of Science and Innovation. The Center also benefits from the external support of its Scientific Advisory Board, composed of leading international experts who provide guidance on strategy and regularly assess the performance of the Center and its program projects and group leaders.

Cardiovascular disease (CVD) is the principal cause of death worldwide, and the exponential increase in the cost of treating CVD in its symptomatic phase places an insurmountable burden on patients, families, and health systems. In response to this challenge, the CNIC has defined three major goals: to increase the understanding of cardiovascular health, to improve disease prevention, and to generate treatment advances for the prevalent manifestations of CVD. These goals require mechanistic studies to gain insight into the molecular and cellular processes underlying disease, coupled to the translation of these findings into improvements in health promotion, diagnosis, and disease management.

To meet these challenges, the CNIC has four pillars: excellence in basic and clinical research, technology, networking and training.

CNIC scientific area is organized into two departments focused on Basic Research and Clinical Research, fully interconnected through seven highly focused and integrated programs: (1) novel mechanisms of atherosclerosis, (2) myocardial homeostasis & cardiac injury, (3) cardiovascular regeneration, (4) novel arrhythmogenic mechanisms, (5) CVD, risk factors & cognitive function, (6) cardiovascular health promotion, and (7) technology development. These programs span from basic research to advanced health-changing clinical

trials and build on the CNIC's deep-rooted and proven expertise in state-of-the-art technology, cellular and animal models, imaging modalities, and large-scale data gathering and analysis.

In 2022, CNIC recruited two Group Leaders, Dr Pablo García Pavia in the myocardial homeostasis & cardiac injury Program and Dr Hesham Sadek as Clinical Leader of the cardiovascular regeneration Program.

The Center's translational studies, including several large randomized clinical trials, have already changed clinical practice worldwide. These studies bear testimony to the enthusiastic commitment of researchers, healthy volunteers, patients, and emergency service personnel to defining the causes and risk factors of CVD. This commitment of citizens and professionals outside the research community is making essential contributions to advancing the use of noninvasive imaging technology for diagnosis and research.

A major discovery in 2022 was the result of the H2020-funded SECURE trial, a multinational randomized clinical trial with the CNIC-Ferrer polypill that demonstrated that treatment with this polypill after myocardial infarction reduces cardiovascular mortality by 33%. Other important findings in basic, translational and clinical research are included in the section of Scientific Highlights.

As we move forward, the CNIC will maintain the drive and focus established in its initial phases and ensure that the Center's basic and clinical scientists continue to work closely together to devise innovative projects that help reduce the health and socioeconomic burden associated with CVD and to train the researchers of the future.

