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European Society of Cardiology
The European Heart House
2035 Route des Colles,
Les Templiers B.P. 179, 06903
Sophia Antipolis, France

Object: “ESC First Contact Initiative Grant” outcome report

To whom it may concern,

My name is María Galán and I was awarded with the “ESC First Contact Initiative Grant” in March of the present year. First of all I would like to thank the ESC council of basic science for allowing me to broaden my horizon in cardiovascular research and to set up a close collaboration with the host laboratory to further develop a research line focused on cardiovascular remodeling and fibrosis, processes deeply involved in heart failure.

I am writing to report the outcome of my grant as a researcher of the Sant Pau Biomedical Research Institute at the Hospital de la Santa Creu i Sant Pau in Barcelona. I have used the grant to visit Dr. Christoph Maack’s Lab from October 12th to October 30th, 2016, in the Klinik für Innere Medizin at the Universitätsklinikum des Saarlandes in Homburg, Germany. Dr. Maack has a long-standing expertise in the mechanisms of mitochondrial function and dysfunction in heart failure and in particular, the mechanisms that lead to oxidative stress in this disease. In Dr. Maack’s laboratory they manage techniques that cover fluorescence microscopy coupled to the patch-clamp technique or electrical field stimulation and also the analysis of force generation in single cardiac myocytes.

This report describes briefly the guidelines of the research program we achieved. During my stay I got acquainted with the experimental procedures to measure mitochondrial activity and reactive oxygen species generation in myocytes. To achieve this aim I proceeded with the isolation of mitochondria from freshly isolated hearts of adult mice and measured mitochondrial respiration and activity through the

