Ischaemic heart disease is the leading cause of death and disability in Europe and worldwide. As such, new treatments are urgently needed to protect the heart muscle from injury, especially in those patients having a heart attack – a treatment strategy termed ‘cardioprotection’. Experimental research has provided many insights into how we can protect the heart muscle and improve functional recovery after a heart attack to prevent heart failure – this has resulted in the discovery of many new cardioprotective treatments. However, the problem has been to translate these new cardioprotective therapies from the experimental studies into the hospital setting for patient benefit.

This COST Action (CA 16225 EU-CARDIOPROTECTION), which was initiated in Oct 2017, is a new research network bringing together cardioprotection researchers from all over Europe, whose primary aim is to discover new therapies and strategies for cardioprotection, and to improve the translation of these new cardioprotective therapies into the clinical setting for the benefit of patients with ischaemic heart disease.

The COST Action research network is divided into the following 4 Working Groups (WG) as follows:

- **WG1 New Targets**: To identify new therapies and strategies for cardioprotection, as many of the ‘older’ therapies have thus far failed. In particular, we will focus on new non-cardiomyocyte targets for cardioprotection (such as inflammatory cells, fibroblasts, platelets, and endothelial cells) and new strategies for identifying new targets such as -omics.

- **WG2 Combination therapy**: To explore the therapeutic potential of combining different cardioprotective therapies for a multi-targeted approach. Many of the failed studies so far have used a single-targeted approach to cardioprotection, which may be ineffective against the complex phenomenon of acute ischaemia/reperfusion injury.
- **WG3 Confounders**: To investigate the confounding effects of co-morbidities (such as age, diabetes, dyslipidaemia), and co-medications (such as statins, anti-platelet agents, and anesthetics) on the efficacy of cardioprotective therapies. Our patients with ischaemic heart disease often have multiple co-morbidities and are on several medications, and these may impact on the cardioprotective efficacy of new treatments.

- **WG4 Consortium**: To form a European network of research centres for systematic and multicentre testing of novel cardioprotective therapies in both the experimental and clinical settings. Lack of rigorous testing of the novel cardioprotective therapy in the experimental and clinical setting may have contributed, in part, to the failure to translate cardioprotection into the clinical setting.

Derek Hausenloy, chair of the COST Action said "The Cost Action program will bridge the gap between basic and clinical research to move the field forward to clinical cardioprotective therapies". Peter Ferdinandy, vice chair of the program is enthusiastic about the COST Action "The COST program will finally reveal the crucial need to look at cardiovascular risk-factors and co-medications in early phases of development of cardioprotective therapies"

The COST Action group will have its first major scientific meeting in Vienna from **19 to 21 March, 2018**. More than 60 leading researchers in the field of cardioprotection from all over Europe will present new data, discuss the aims of the working group and devise strategies for overcoming the hurdles of translating cardioprotection from experimental studies to patient benefit. This COST Action group is scheduled to present and publish the final results in 2021. *Using the COST Action networking tools of meetings, training schools, dissemination activities and short-term scientific missions, our EU-CARDIOPRETECTION Cost Action aims to deliver Cardioprotection research to the, much-needed, next level.*

Group photo of COST Action EU-CARDIOPROTECTION Management Committee, Brussels Oct 2017

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