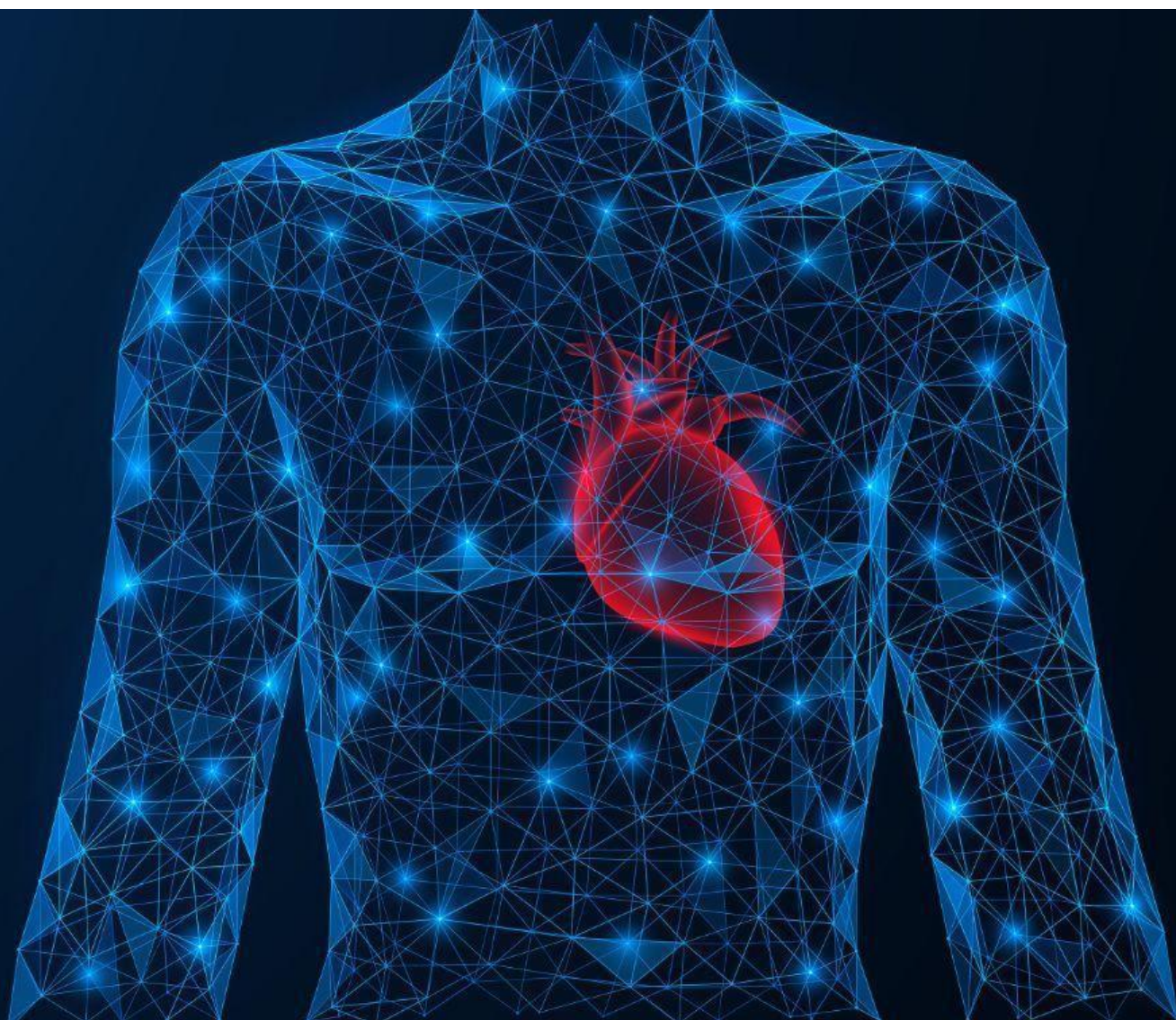




TargetMI Fact Sheet



Project acronym:	TargetMI
Project name:	A Multi-Omics Approach for Novel Drug Targets, Biomarkers and Risk Algorithms for Myocardial Infarction
Call:	HORIZON-EIC-2022-PATHFINDERCHALLENGES-01
Topic:	HORIZON-EIC-2022-PATHFINDERCHALLENGES-01-03
Type of action:	Horizon EIC Grants
Granting authority:	European Innovation Council and SMEs Executive Agency (EISMEA)
Project number:	101114924
Duration:	60 months (01/10/2023 – 30/09/2028)
Project funding:	€3,999,840.00
Website:	um.edu.mt/projects/targetmi
LinkedIn:	linkedin.com/showcase/targetmi-eu-project
Project description:	Cardiovascular diseases (CVD) encompass various conditions affecting the heart and blood vessels and constitute a major health concern. In myocardial infarction (MI), a sudden disruption in blood flow to the heart leads to cardiac tissue damage or death. Despite research on the genetic, lifestyle, and environmental factors associated with MI, practical applications to prevent it remain limited. Researchers from the University of Malta and the Leiden University Medical Center are collaborating on the TargetMI project, funded by the Pathfinder programme of the European Innovation Council. The consortium is undertaking a high throughput multi-omics analysis on samples and data from the Maltese Acute Myocardial Infarction (MAMI) study including genomic, metabolomic, proteomic, and RNA data, to discover new drug targets and biomarkers for MI and develop novel risk assessment strategies. Machine learning algorithms are being used to analyse the multi-layered data to identify novel biomarkers and risk algorithms, including polygenic risk scores, for early risk prediction in the clinic. Quantitative targeted proteomic assays will be developed for further validation in other cohorts facilitating clinical use. Besides the increase in knowledge on the molecular aetiology of MI, this powerful integrated strategy will bring rapid clinical translation of unprecedented multi-omics data.

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