

# RITA-MI2

A PHASE 2 CLINICAL STUDY

## Toward an innovative and cost effective treatment for major cardiovascular events

Given the role of inflammation in heart disease, can an existing drug, CD20 mAb rituximab, be repurposed to target inflammation-based heart disease after heart attack?

The RITA-MI 2 project is a European-funded research initiative coordinating over a dozen teams of researchers from across Europe. Its aim is to improve heart function recovery and reduce progression to heart failure after heart attack by the selective targeting of mature B lymphocytes, part of the immune system.

At a glance :

**5**  
YEARS  
DURATION

**13**  
PARTNERS

**8**  
COUNTRIES

**€6.5m**  
EUROPEAN COMMISSION FUNDING

**550**  
PATIENTS RECRUITED

### The problem

Cardiovascular diseases are a major cause of illness and death worldwide. Despite advances in treatment of myocardial infarction, up to 50% of patients still develop dysfunction in the heart's left ventricle, indicating 3 to 4-times higher mortality risk.

### The hypothesis

The study's central idea is that using rituximab to deplete B lymphocyte cells will limit the infarct size and swelling of the heart muscle after a serious heart attack (a 'STEMI'). This should improve heart recovery and function. Additionally, the therapy will hopefully tame excessive inflammatory response and accelerated thickening of artery walls after such events.

### Trial objectives

This phase 2b, placebo-controlled, doubleblind study has three main aims :

**Prove that rituximab improves heart function after STEMI (a type of heart attack)**

**Assess impact of the drug on vascular inflammation patients**

**Understand immuno-pharmacology and cardio-protective mechanisms of rituximab**

### Anticipated impacts

**Unique**  
no equivalent exists

**Synergies**  
can combine existing therapies

**30% reduction**  
in cardiovascular events

**Duration**  
may give long term protection

**Compliance**  
no medication to remember

### Partners & regions

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