

# Consortium



The CARE-IN-HEALTH project is a European-funded research initiative gathering the efforts and expertises of 10 research teams from across Europe

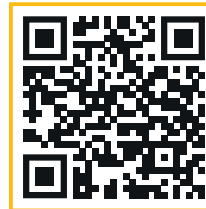


# Learn more

Find out more about this groundbreaking study developed by dedicated teams of complementary expertises, online:



[care-in-health.eu](https://care-in-health.eu)



# Contact

## Scientific coordinator



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Creating a cardiovascular lipid immune knowledge atlas in order to self-monitor and target those responsible for lipid-driven/- regulated inflammation in the health-to-CVD transition with the aim of promoting healthier aging

**5** Years duration

**6** Countries

**10** Partners

**1000** Patients to be recruited

**7** M€ European Commission funding

## CARE-IN-HEALTH aims to

- Provide scientific evidence and understanding of the **inflammatory lipidomic profiles** involved in the health-to-disease transition
- Improve guidelines for **personalised prevention strategies** based on the results of a proof-of concept clinical trial of dietary intervention
- Offer next generation **precision medicine-based strategies** to prevent health-to-disease transition

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# Context

**Cardiovascular diseases (CVD) are the leading cause of mortality and a major cause of morbidity in Europe. Elevated levels of blood lipids (hyperlipidemia) triggers chronic inflammation, and particularly the failure in the resolution of inflammation drives the health-to-cardiovascular disease transition**

Preventive measures are crucial to attain what is referred to as healthy ageing. Particularly, an appropriate lipid intake as dietary intervention can pave pathways towards resolution of inflammation and development of global prevention strategies.

# Concept

The research's central idea is to identify and to reverse the lipid-mediated chronic inflammation with the aim to prevent cardiovascular disease.

The CARE-IN-HEALTH project will allow to prevent and to resolve lipid-mediated chronic inflammation, with the development of a cardiovascular immune atlas, and a biosensor, which will monitor inflammation and therefore will help to prevent cardiovascular disease.

CARE-IN-HEALTH will demonstrate proof-of concept for an appropriate lipid intake as dietary intervention and specifically, for the use of vegetal omega-3 fatty acid sources as substrates for immunomodulatory lipid mediators and resolution of inflammation.



# Objectives

**1** To identify the **lipid components** involved on the transition of inflammation-driven health to cardiovascular disease.



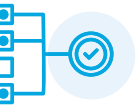
**2** To identify suitable **targets to prevent and treat the cardiovascular disease** by reverting the lipid-driven chronic inflammation.



**3** RESOLVIN: Clinical trial to determine the **impact of pharmacological and dietary lipid-interventions** on lipid-driven inflammation and cardiovascular disease and to implement the **Biosensor technology**.



**4** POMECA-2: Clinical trial to create a digital Multi Criteria Decision Support System (MCDSS), which coupled to diagnostic test, will establish **personalized prevention strategies to correct inflammation and cardiovascular disease**.



**5** To develop a **biosensor technology** as diagnostic tool, to enable monitoring inflammation and to help citizens to stay healthy.



Care  Health

# Workflow

2023 2024 2025 2026 2027

Lipid immunology discovery of resolving effectors and markers

Epidemiology

POMECA-2 and RESOLVIN clinical trial

Atlas and MCDSS development

Biosensor development and implementation

# Anticipated impacts



**Open access CARE-IN-HEALTH Atlas** for lipid pathways leading to/and correcting the chronic inflammation.

**Personalized cardiovascular prevention** through balancing inflammation.



**Low cost and low risk** omega-3 fatty acids treatment for cardiovascular prevention.