

#### PROJECT PARTNERS

RECOGNISED brings together 21 partners from nine different countries, including academic institutions, small and medium enterprises (SMEs), the European infrastructure for translational medicine (EATRIS) and patient organisations, with complementary knowledge and expertise.

# BELFAST Clinical and Research Centres Patients' Advocacy Groups (IDFE and, AE) **ODENSE** SMEs (AX, GB and OXU) **BRUXELLES** LUXEMBOURG COIMBRA MILAN MONTENEGRO ROMA TERRASSA CADIZ BADALONA BARCELONA

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RECOGNISED has received almost €6 million in funding from the EU Horizon 2020 programme with the final goal of improving the quality of life of people living with diabetes. In RECOGNISED, basic scientists and clinicians with extensive expertise in diabetes, ophthalmology and neurology will use state-of-the-art technologies to undertake the experimental and clinical studies that form part of this ambitious project.

For more information, please visit: https://www.recognised.eu





## THE EYE AS A WINDOW TO THE BRAIN

RECOGNISED will determine the usefulness of the retina as a tool to identify people with type 2 diabetes and cognitive impairment, or those at risk of developing cognitive decline and dementia

#### CLINICAL BACKGROUND

Type 2 diabetes (T2D) is known to be an independent risk factor for developing cognitive impairment and dementia, with studies showing that people living with T2D have a two-fold higher risk of developing Alzheimer's disease (AD) when compared to the general population.

AD is a neurodegenerative disease that leads to the progressive loss of brain cells, which causes cognitive decline and, eventually, dementia.

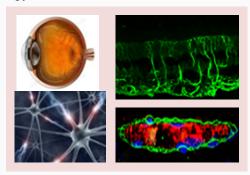
People with cognitive impairment are more prone to have impaired diabetes self-management, poor glycaemic control and an increased incidence of diabetes-related complications, which presents significant challenges both for individuals and healthcare systems on how best to manage diabetes care.

#### THE PROJECT

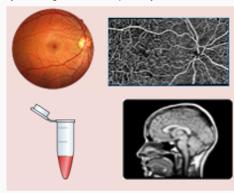
The four-year long RECOGNISED project started in January 2020 and aims to study the biological mechanisms that cause structural and functional alterations in the retina and brain in people with T2D. RECOGNISED will determine whether events taking place in the retina as a result of the disease also occur in the brain during the development of cognitive impairment and dementia. Experimental and clinical studies will be undertaken.

RECOGNISED will reveal whether evaluating the retina, easily accessible with current technologies, could help in identifying, earlier, cognitive impairment in people with T2D, so that appropriate support can be given. RECOGNISED will also analyse previously-collected data and samples from registries, cohorts and biobanks. By gaining knowledge on the mechanisms of the disease, RECOGNISED will help to identify new potential treatments.

BASIC RESEARCH - Deciphering common molecular mechanisms leading to neurovascular pathology in Alzheimer's brain and diabetic retina



CLINICAL STUDIES - Prospective multicentric, cross-sectional and cohort clinical studies which will include in depth evaluation of function and structure of brain and retina as well as neuropsychological and quality of life evaluations



DATA MINING & SYSTEMS BIOLOGY – Analysis of links between diabetic retinopathy and cognitive impairment and identification of predictive biomarkers of cognitive decline





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