

ALFA10 STUDY

PREPARING FOR THE NEXT DECADE OF RESEARCH AT THE BBRC



pasqual maragall foundation

barcelonaβeta
BRAIN RESEARCH CENTER

1 ALZHEIMER'S DISEASE

What do we mean by Alzheimer's disease?



1906

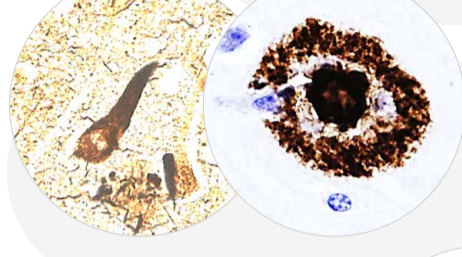
Alois Alzheimer describes the case of Auguste Deter

THE FIRST DESCRIPTION ...

Clinical diagnosis of Alzheimer's disease:
Report of the NINCDS-ADRDA Work Group* under the auspices of Department of Health and Human Services Task Force on Alzheimer's Disease

1984

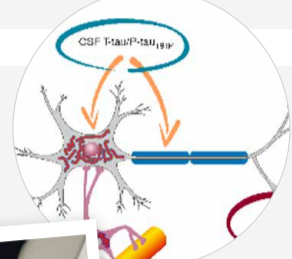
Clinical diagnosis of Alzheimer's



1980's

β-amyloid and tau, identified

... MOVING ON TO UNDERSTANDING THE DISEASE ...



1990's

Cognitive decline is correlated with β-amyloid and tau



2000's

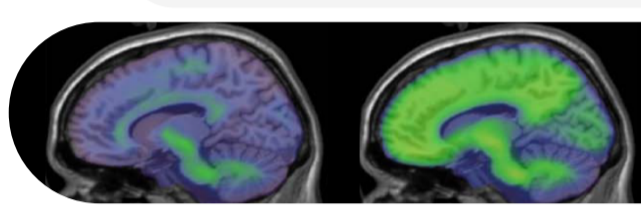
Biomarkers

... TO ADVANCED RESEARCH

Alzheimer's prevention. Early detection is key

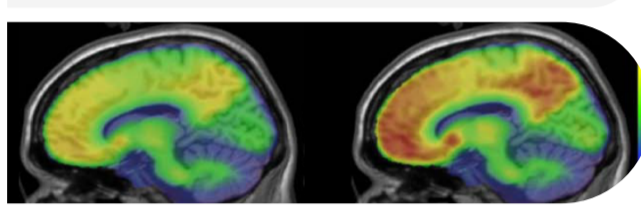
CLINICAL RESEARCH

MEDICAL CARE. DIAGNOSIS



NORMAL
With no pathological injuries

PRECLINICAL STAGE
First pathological injuries



MILD COGNITIVE IMPAIRMENT
Moderate pathology

DEMENTIA
Intense pathology

Primary

Secondary

Tertiary

Current and cutting-edge research: early detection and prevention



KEY ROLE OF BIOMARKERS

2 ALFA STUDY

ALFA study 2012 participant registry



Research infrastructure

for the early detection and prevention of Alzheimer's disease



2,743 VOLUNTARY PARTICIPANTS evaluated in 2013-2014



HEALTHY ADULTS, aged between 45 and 74



SONS AND DAUGHTERS of people with Alzheimer's



ALFA+ PARTICIPANTS tracking every three years and during decades

The ALFA study will allow us to understand the evolution of the disease by identifying risk factors and testing preventive treatments long before the onset of symptoms.

The goal is to act before brain damage becomes irreversible.

FROM ALFA TO ALFA10

BIOMARKERS

To analyze how Alzheimer's biomarkers evolve before symptoms, using data from more than 15 years of research.

EARLY DETECTION

Advance early detection through new technologies, more sensitive assessments, and digital tools for remote cognitive health monitoring.

PREVENTION

Strengthen prevention by identifying risk factors and promoting healthy habits to delay or prevent dementia.

NEW PROTOCOLS

Bridge into clinical practice so that the results translate into protocols and models that can be implemented in the healthcare system.

3 ALFA10 THE RESEARCH PLATFORM OF THE NEXT DECADE

ALFA10: goals



Develop the ALFA study as a research platform to identify people at higher risk of cognitive decline

(whether as a consequence of Alzheimer's disease or of other common causes or contributing factors), who can then be invited to take part in more specific observational or interventional studies.



Study the biological and clinical changes during the first stages of Alzheimer's

to better understand its pathogenesis, improve the diagnosis and identify prospective therapeutic targets, considering the potential impact of commonly associated cerebral co-pathologies.



Test remote evaluation strategies, fostering participant engagement and, in the future, enabling registry-type approaches.

The algorithm that will anticipate Alzheimer's

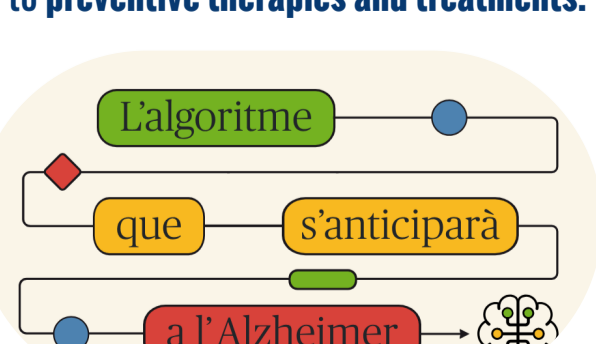
Thanks to the clinical, biological, and cognitive data collected over nearly fifteen years, we will validate a predictive algorithm that will allow us to identify people at higher risk of developing Alzheimer's disease.



We will be able to screen more precisely for suitable candidates for clinical trials, observational studies, or intervention programs.



This opens the door to preventive therapies and treatments.



Remote monitoring with digital tools

Will enable continuous, efficient tracking of cognitive health.



Aligned with European projects such as AD-Riddle, which promote technology use to advance early detection, personalized follow-up, and improved care for people at risk of cognitive decline.