

20
22

Annual
report

More resources for better research

pasqual
maragall
foundation

barcelonaβeta
BRAIN RESEARCH CENTER

20
22

**More
resources
for better
research**

We promote cutting-edge
research to defeat Alzheimer's.

Edition **Pasqual Maragall Foundation**
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Greetings



We close an intense year, full of challenges, successes and new projects that place us at a key moment in the approach to Alzheimer's. We are living a historic moment in research on the disease and its treatment, thanks to advances in early detection and the appearance of the first drugs in the United States.

A year full of steps forward, too, in our purpose of changing the social consideration of the disease. A year in which we have gained **the trust of more than 61,000 members** who drive us to reach the purpose of achieving a world without Alzheimer's.

I invite you to read this report in full, in which you will find a summary of the achievements and projects underway. In these brief lines I highlight some of the actions carried out to show the scope of the work we have done together: **partners, patrons, sponsors, collaborators, participants in our studies, and the teams of the Pasqual Maragall Foundation and the BarcelonaBeta Brain Research Center.**

In terms of research, 2022 was **the year of the launch of the Pasqual Maragall Researchers Programme**, the most important private aid program in Spain for research on Alzheimer's and other age-related neurodegenerative diseases. The objective of these grants is to promote and finance clinical and translational research of excellence and will allow the Foundation to establish new alliances to accelerate research. Its launch has been a complete success and we have received more than 60 requests. The award-winning grants will be known during 2023, together with the call for a second edition.

Also, focused on research, last year an essential project for the future of our entity and the approach to Alzheimer's culminated: **the start-up of the Laboratory of Biomarkers in Fluids and Translational Neurology**. A crucial infrastructure that is possible thanks to donations from our social base and that positions us as leaders at a time when biomarkers will be decisive in facilitating early detection and the development of new treatments.

A year full of steps forward, too, in our purpose of changing the social consideration of the disease. A year in which we have gained the trust of more than 61,000 members.

As regards our efforts to change the social consideration of the disease, different actions stand out to make Alzheimer's visible and **demand that it be a priority in public policies, such as the #CompromisoAlzheimer**, a joint manifesto with other relevant entities launched in 2022 but which we will continue working on in 2023; or the celebration of #undíaparaolvidar (a day to forget), on September 21, World Alzheimer's Day.

Likewise, for yet another year we have maintained our **continued support for more than 200 families and caregivers** through our support groups, because we know that it is important to take care of those who care. We have also increased our impact on society with campaigns such as "What we never knew about Alzheimer's" which has allowed us to analyze 10,000 blood samples from our ALFA infrastructure, which, for another year, has had the support of the La Caixa Foundation.

Last but not least, in 2022 we have met again in person on different occasions, including our annual meeting, on November 14, an event full of emotions and recognition of the people who make research possible, scientists and participants in our studies, in which we share our achievements throughout our almost 15-year history.

It is time to congratulate each other on all our milestones and to ratify our shared commitment to defeat Alzheimer's. Let me end with one last THANK YOU! to our huge social base.

We launch fully into 2023!

Arcadi Navarro
Director

deter mina tion.

**“Nowhere is it written that
Alzheimer’s is invincible”**

Pasqual Maragall said it, and we will not tire of working to achieve
a future without Alzheimer’s or neurodegenerative diseases.

01.

1.01

Alzheimer's today

Every year, 10 million cases of dementia are registered around the world, most of them caused by Alzheimer's.¹ At the Pasqual Maragall Foundation and the Barcelonaβeta Brain Research Center, we are convinced that prevention is key to stopping the progress of the disease. For this reason, we concentrate our research efforts on the **early diagnosis** of Alzheimer's, which will allow us to develop treatments that act before the disease's damage is irreversible.

Early diagnosis allows those affected to receive treatment and specialised assistance when they are most effective, anticipate decision-making and reduce the stress associated with uncertainty. Faced with this reality, we also work to eliminate the misinformation and social stigma that still surrounds Alzheimer's disease and other forms of dementia, and that make access to early diagnosis difficult.



Every year **10 million** cases of dementia are recorded around the world, most of them caused by Alzheimer's.



50 Million
cases

Every 3 seconds a new case of dementia is diagnosed in the world.



900.000
cases

1 in 10 people over the age of 65 have Alzheimer's.



94% of Spaniards would like to know if they are in the early stage of Alzheimer's²



46% of people with dementia and their carers identify fear of diagnosis and stigma as barriers to diagnosis³



Between 30% and 40% of Alzheimer's cases would be undiagnosed⁴

1. Data from the World Alzheimer Report 2015: The global impact of dementia.
2. Data from the survey "Attitudes and perceptions of the Spanish population on Alzheimer's", conducted by the Pasqual Maragall Foundation.
3. Data from the World Alzheimer Report 2021: Journey through the diagnosis of dementia.
4. Data from the Spanish Society of Neurology.

1.02

2022: we move forward so that research has an impact on clinical practice

February

We get the funding to analyse 10,000 blood samples in the new laboratory

We launched the fundraising campaign "What we never knew about Alzheimer's" and thanks to the participation of many partners and donors like you, we have reached the goal: to finance the analysis of 10,000 blood samples for more than 10 years in our laboratory.



March

Third edition of the RECORDA (REMEMBER) series of talks

More than 800 people participated in the series of talks, which took place virtually. The talks provided knowledge about the relationship between Alzheimer's and sleep, as well as tips for managing day-to-day life with a person with Alzheimer's.

May

#Alzheimer's Commitment

Prominent organizations in the field of Alzheimer's and the elderly, including the Pasqual Maragall Foundation, have joined the manifesto **Commitment for a future without Alzheimer's** so that the fight against this disease is a priority in public policies.



August

Biomarkers in blood for the early detection of Alzheimer's

A study by the Barcelonaβeta Brain Research Center, the Hospital del Mar Medical Research Institute and the University of Gothenburg, with the support of the "la Caixa" Foundation, determines two optimal blood biomarkers to show the first signs of the amyloid build-up in the brain.



March

5th edition of the Brain Film Fest

We celebrate the 5th edition of the film festival about the brain and for the first time present the Brain Film Fest Award to Carme Elías, in recognition of her outstanding role in the world of culture and her significant influence on the collective imagination about brain issues.



March

The APOE gene and the risk of developing Alzheimer's

We associate APOE gene variants with the risk of developing Alzheimer's. Carriers of the APOE ε2 variant could have greater brain reserve and more protection against Alzheimer's. On the other hand, carriers of the APOE ε4 gene, linked to a higher risk of developing the disease, have an early accumulation of the amyloid protein in the hippocampus area.

July

Brain metabolism of glucose and Alzheimer's

We open new avenues for the leading analysis of biomarkers and the pathophysiological mechanisms that are altered in the early stages of the disease.



November
We pay tribute to Diana Garrigosa at the 4th Annual Meeting

For the first time, we present the Diana Garrigosa Award to Manuela Carmena and Fernando Ónega as part of the 4th Annual Meeting. The Award is a recognition of people over 65 years of age, with a life trajectory and an outstanding professional and personal journey, who are a model of active and committed veterans in the defense of social values and rights.



November
Sleep and Alzheimer's

An international team led by researchers from Barcelonaβeta Brain Research Center demonstrates the association between the quality of sleep and the pathology related to the Alzheimer's disease in people without cognitive impairment.

August
Mental health and Alzheimer's during the confinement due to Covid-19

We relate Alzheimer's biomarkers, such as beta amyloid or neuroinflammation, to an increase in symptoms of anxiety and depression during confinement due to Covid-19. This study analyses the negative impact of confinement on cognitively healthy people who are part of the Alfa Study, promoted by the "la Caixa" Foundation.



September
The most important grant program in Spain for research into Alzheimer's and other neurodegenerative diseases

We are launching the Pasqual Maragall Researchers Program, a grant program that will finance translational or clinical research projects on Alzheimer's or other neurodegenerative diseases with up to €800,000.

November
We apply research to clinical practice

We validate nine possible biomarkers, variants of the tau protein, in blood that can be very useful in the diagnosis of Alzheimer's disease in daily clinical practice. This study has been carried out in collaboration with the Hospital del Mar Medical Research Institute (MIM-Hospital del Mar).

December
Genetics and Alzheimer's

Two studies carried out at the Barcelonaβeta Brain Research Center, with the support of "la Caixa" Foundation, indicate that there are genetic variants that are associated with a longer telomere length and that may be related to a lower risk of developing Alzheimer's.

December
We care for those who care

We give support to more than 200 families thanks to face-to-face therapeutic groups and the online program "Learn to care and take care of yourself" for caregivers of relatives with Alzheimer's.

1.03

The year in numbers

Budget



Aggregated data from the Pasqual Maragall Foundation and the Barcelonaβeta Brain Research Center.

Both entities undergo an annual external audit.



Budget

18,385,668 €

Pasqual Maragall Foundation

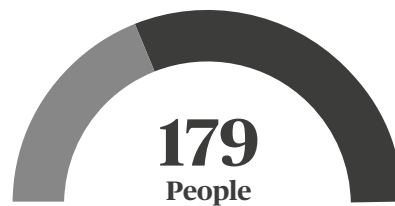
10,771,589 €

BBRC Research Center

7,614,079 €



Human team



37.4 %
67 Men

62.6 %
112 Women

Pasqual Maragall Foundation



36.3 %
37 Men

63.3 %
65 Women

BBRC Research Center



39 %
30 Men

61 %
47 Women

20 22

Divulagation



1,931

Appearances
in the media



97,683

Followers on
social networks



2,332,994

Visits to the blog
"Let's talk about Alzheimer's"

22

face-to-face and online groups
for caregivers >

209

Participating
caregivers

Research



+ 1,500

Visits
to participants



+ 15,000

Samples
processed



+ 500

magnetic
resonance

Social suport



61,044

members at the end of the year



+ 6,000

Donations



521

Solidarity initiatives

cre dibi lity.

Scientific rigor and expert knowledge in everything we do.

At the Barcelonaβeta Brain Research Center (BBRC) we are dedicated to research about Alzheimer's prevention. Thanks to the experience, rigor and high competence of our scientific team, we are contributing new knowledge to one day be able to prevent, or at least delay, the onset of the disease.

02.

2.01 Figures



12 Study protocols



736
Clinical sessions



477
Cognition sessions



968
Nursing sessions



*In the same visit the participants can carry out different sessions.

2.02

Alfa Study

The **Alfa Study** is a research platform to identify the early characteristics of Alzheimer's disease. Launched in 2013 thanks to the support of "la Caixa" Foundation, it stands out internationally for the volume of participants, which exceeds **2,700 people without cognitive impairment**, aged between 45 and 75, most of whom are children and daughters of people with Alzheimer's.

The objective of the Alfa Study is to gather information from the preclinical phase of Alzheimer's in order to understand the natural history of the disease. Knowing the **biomarkers and risk factors of Alzheimer's** opens the door to early detection and the development of new prevention strategies.

The initial visit of the Alpha participants included a comprehensive clinical and cognitive assessment, the administration of questionnaires about lifestyle habits and other risk factors related to Alzheimer's disease, DNA extractions and MRI (in a subgroup).

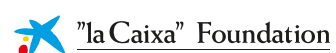
Subsequently, the participants of the Alfa Study were invited to be part of other research projects, such as the Alfa+ cohort study, in which additional tests such as neuroimaging biomarker and cerebrospinal fluid analysis are carried out, periodically.

The exhaustive characterisation of the participants of the Alfa Study allows their subsequent inclusion in different studies and trials to prevent Alzheimer's disease. BBRC researchers use the data from the Alfa Study to evaluate different hypotheses and publish numerous relevant advances in prestigious scientific journals.

2,700
Participants



The Alfa Study receives the support of:



2.03

Alzheimer's research

BBRC research focuses on the preclinical phase of Alzheimer's disease, a period of more than 20 years prior to the appearance of the first symptoms in which changes in the brain associated with Alzheimer's already occur.



The research is currently structured in four groups, two of which were created in 2021.

The main objective of our research is to be able to detect Alzheimer's early and design prevention programs that delay or slow down the onset of symptoms. For this reason, the BBRC studies Alzheimer's from multiple perspectives: clinical, cognitive, genetic, modifiable risk factors, and fluid and neuroimaging markers.

The research is currently structured in four groups, two of which were created in 2021.

Thus, the Neuroimaging Research Group, led by Dr. Juan Domingo Gispert, participates in the project; the Clinical Research Group and Risk Factors for Neurodegenerative Diseases, led by Dr. Oriol Grau-Rivera, and the new Research Group on Biomarkers in Fluids and Translational Neurology, led by Dr. Marc Suárez-Calvet, and the Research Group on Genomics, led by Dr. Arcadi Navarro.



2.03



The main objective of the research is to be able to detect Alzheimer's early and design prevention programs that delay or stop the onset of symptoms.

Neuroimaging Research Group

The **Neuroimaging Research Group** studies the characteristics associated with healthy aging and risk factors for Alzheimer's disease through brain images obtained through magnetic resonance and positron emission tomography (PET).

Researchers and researchers analyse the information obtained through neuroimaging techniques together with cognitive, genetic, environmental factors, medical history, lifestyle habits and biomarkers associated with the disease. In this way, they can detect its impact on the brain at a structural, functional and molecular scale.

The group, led by Dr. Juan Domingo Gispert, is made up of a multidisciplinary team of experts in the acquisition, processing and analysis of complex neuroimaging data.

In 2022, it actively participated in the EPAD and AMYPAD European consortia and with institutions such as the Cardiovascular Research Center (C-NIC) and the Universitat Politècnica de Barcelona (UPC), among others.



Lines of research

Correlations between brain structure and Alzheimer's risk factors in the preclinical phase of the disease.

Improving the use of amyloid PET images in the clinical and research fields.

Genetic determinants of brain phenotypes.

New techniques for detecting the preclinical phase of Alzheimer's disease.

Generation of a repository of images of the preclinical phase of Alzheimer's.



2.03



The group is made up of a multidisciplinary team that includes experts in neurology, neurophysiology and neuropsychology.

Clinical Research Group and Risk Factors for Neurodegenerative Diseases

The **Clinical Research Group and Risk Factors for Neurodegenerative Diseases** is aimed at understanding the biological and clinical changes that precede the cognitive impairment caused by Alzheimer's disease. It also studies how different elements, such as sleep, dietary patterns or cardiovascular risk factors, interact with brain structure and function, and with Alzheimer's disease biomarkers.

The group, **led by Dr. Oriol Grau since 2021**, is made up of a multidisciplinary team that includes experts in neurology, neurophysiology and neuropsychology.

The members of the group collaborate in multiple projects such as the EPAD consortium, and with institutions such as the Global Health Institute of Barcelona (ISGlobal), the Hospital del Mar Medical Research Institute (IMIM) and the Institute of August Pi and Sunyer Biomedical Research (IDIBAPS), among others.



Lines of research

Association between sleep disturbances, cognitive impairment and Alzheimer's.

Characterization of subtle cognitive changes in the preclinical phase of Alzheimer's.

Effects of specific nutrients and dietary patterns in the development of Alzheimer's disease.

Study of the personalised risk of developing dementia to offer personalised prevention plans.



2.03



The goal is to develop biomarkers, discover new therapeutic targets and provide a better understanding of the molecular mechanisms of Alzheimer's and other neurodegenerative diseases.

Biomarkers Research Group in Fluids and Translational Neurology

The goal of the **Biomarkers Research Group in Fluids and Translational Neurology**, established in 2021, is to develop biomarkers, discover new therapeutic targets and provide a better understanding of the molecular mechanisms of Alzheimer's and other neurodegenerative diseases through translational research.

The Group is led by **Dr. Marc Suárez-Calvet**, beneficiary of the prestigious ERC Starting Grant, endowed with 1.5 million euros and intended to study the mechanisms of aging, the main risk factor in Alzheimer's disease.

The Group collaborates with the University of Gothenburg, IMIM, Avid Radiopharmaceuticals and Roche Diagnostics International, among others.



Lines of research

Development, validation and application of new biomarkers that improve the diagnosis of Alzheimer's or other neurodegenerative diseases in the earliest stages.

Execution of the HeBe project, focused on identifying blood factors that have a rejuvenating or aging effect on the brain and that can become therapeutic targets for Alzheimer's disease.



2.03



The group was created with the aim of studying the causes of aging and age-related diseases.

Genomics Research Group

The **Genomics Research Group, led by Dr. Arcadi Navarro**, was created in 2021 with the aim of studying the causes of aging and age-related diseases, particularly neurodegenerative disorders, from a genetic perspective.

It maintains collaborations with the Pompeu Fabra University (UPF), the University of Barcelona (UB), Harvard University, IrsiCaixa, the European Molecular Biology Laboratory (EMBL) and the Superior Council for Scientific Research (CSIC), among others.



Lines of research

Analysis of genetic relationships (pleiotropies) between different diseases, especially those associated with age, using bioinformatics tools to study large international databases of biomedical information.

Creation of a genetic basis for neurodegenerative and psychiatric diseases, fundamentally using genomic data from the Alfa Study.

Study of the neurological effects of COVID-19 in people at different risk of Alzheimer's through mini-brains, customised organoids of human brains.



2.04

Research projects



The HeBe project receives funding from the European Research Council within the framework of the European Union's Horizon 2020 research and innovation program.



HeBe

HeBe is a research project that started in 2021, led by Dr. Marc Suárez-Calvet, funded by the prestigious European aid **ERC Starting Grant**. HeBe, named after the Greek goddess of eternal youth, has an expected duration of 5 years.

Although we know that aging is the main risk factor for the development of Alzheimer's and other neurodegenerative diseases, the mechanisms behind this association are still unknown. The main objective of the HeBe project is to investigate these mechanisms by identifying brain rejuvenation factors in blood to use them as therapeutic targets for Alzheimer's disease.

To identify these blood factors, the project team must determine the biological age of the Alfa Study participants, and analyse whether there are blood factors that differ between participants with extreme biological ages; that is, participants with biological ages much lower versus those with biological ages much higher than their chronological ages. The main hypothesis of the Hebe project is that there are factors in blood that explain the differences between biological and chronological age.

Study on the impact of home confinement during the COVID-19 pandemic on the brain and mental health

In 2020, a new study was launched to analyse the effects of confinement resulting from the COVID-19 pandemic on mental and brain health, as well as other factors that mitigate its impact. The project involves more than **900 cognitively healthy people**, aged between 45 and 75, who are or have been part of different BBRC studies.

Participants answered a series of online questionnaires during the lockdown and did so again about 18 months later so the researchers could assess outcomes related to anxiety, depression and post-traumatic stress.

The aim of the study is to detect brain changes related to Alzheimer's disease and to study the impact of confinement on people who care for a family member with dementia or other diseases that involve dependency or special needs.

2.04



Alfa Sleep receives funding from the Alzheimer's Association and the Carlos III Health Institute.

alzheimer's association



Instituto de Salud Carlos III

Alfa Sleep

Alfa Sleep is a study that explores the relationship between insomnia and Alzheimer's. The project, with an expected duration of 2 years, began visits in 2021.

During the visits that were carried out, tests such as polysomnography and actigraphy were carried out. The data obtained from the nearly **200 participants**, together with those from the Alfa+ Study, will allow very precise and reliable information to be extracted to study the association between different sleep parameters and biochemical changes in brain structure and functionality.



A research team from the Barcelonaβeta Brain Research Center (BBRC) has developed a protocol for the Alfa Sleep study, focused on a better understanding of the mechanisms that relate sleep to Alzheimer's disease.

The protocol, published in the scientific journal *BMJ Open*, covers the aims and analysis methods of the project, which include both subjective and objective measures of sleep and fluid biomarkers of Alzheimer's and glial activation, in addition to data from the structure of the brain and cognition.

Alfa+ study

Alfa+ is a cohort, prospective and observational study that aims to describe the biological processes and identify factors that may precede the preclinical phase of Alzheimer's disease.

Thanks to the extensive characterisation of the participants from the Alfa Study, Alfa+ analyses the association between the biological, structural, functional and neurocognitive brain markers that characterise the preclinical phase of the disease and describe its natural history.

About **420 people without cognitive impairment** take part in the study, and every three years they take different tests, such as cognitive tests, extraction of cerebrospinal fluid through a lumbar puncture, nursing tests and two magnetic resonance imaging. Participants are also invited to have a PET scan at the Hospital Clínic facilities. In 2022, **236 visits of this study** were carried out at BBRC facilities.

2.04



About 200 people take part in the study, taking neurological tests, neuroimaging, cognitive and lifestyle tests, and a blood draw

Alfa Cognition

Alfa Cognition is an observational and prospective study that analyses the relationship between the subjective perception of cognitive decline and the presence, evolution or risk of clinically objective cognitive impairment. It also analyses the relationship between these parameters and the brain changes associated with Alzheimer's disease.

About 200 people take part in the study, taking neurological tests, neuroimaging, cognitive and lifestyle tests, and a blood draw. In 2022, 40 visits were made to this study.

Dementia Prevention Clinical Research Unit

The **Dementia Prevention Clinical Research Unit** is a study developed between 2018 and 2021 that has analysed the risk and biological basis of developing dementia five years from now, as well as offering participants an action plan customised to try to reduce the risk.

The study included more than **300 participants** aged between 60 and 80 who experience a decline in cognitive abilities.

Pending analysis and interpretation of all the data, the interim analysis of results demonstrates the **success of the algorithmic selection of participants and the online registration method** for recruiting such individuals. The study also highlights the value of personalised clinical structures, as more than half of the Research Unit participants were offered other clinical studies to benefit from.



2.04



The PENZA Study is part of the World Wide Fingers international consortium, an initiative dedicated to promoting primary prevention projects for cognitive impairment and dementia.

The project is funded with one million dollars by the Alzheimer's Association of the United States.



PENZA study

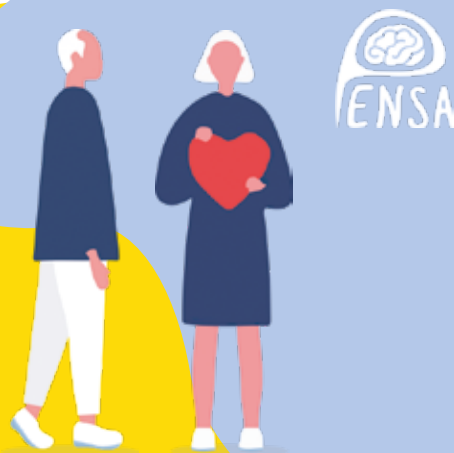
The **PENZA Study** aims to determine whether it is possible to slow cognitive deterioration in stages prior to the onset of dementia through the promotion of healthy lifestyle habits and the intake of epigallocatechin gallate (EGCG), a natural component of green tea.

For this reason, the study offers participants a **personalised action plan** based on lifestyle habits and health indicators.

The project is led by the BBRC and the IMIM, and was launched in December 2019 with an expected duration of 17 months. In 2022, 69 visits were made.

The participants are people between 60 and 80 years old who are experiencing a decline in memory or other cognitive abilities such as attention, the ability to plan or orientation, among others.

69
Visits



2.04



Beta-AARC study

The **Beta-AARC study project: cohort study for the identification of blood biomarkers in the population with subjective cognitive decline** aims to know the factors involved in the beginning of the biological process of Alzheimer's disease and the biomarkers that predict its evolution.

The study will include **200 participants** between the ages of 55 and 80 who will experience a subjective decline in memory or other cognitive abilities, such as attention, planning and orientation.

In 2022, **371 visits** were carried out, which took part in clinical, cognitive and imaging tests and determinations of biomarkers in blood and cerebrospinal fluid.



The aim of the project is to discover the factors involved in the beginning of the biological process of Alzheimer's disease.

Tau PET study

The main objective of the **tau PET Study** is to characterise the distribution of the neurofibrillary tangles of the tau protein using PET as a function of amyloid protein levels, cross-sectionally and longitudinally.

The tau protein is, together with the amyloid protein, one of the markers of the pathophysiology of Alzheimer's disease. Therefore, the tau PET Study allows us, in combination with the Alfa PET Study and AMYPAD (which carry out amyloid PET), to characterise the brain distribution of the two hallmarks of Alzheimer's disease: the proteins amyloid and tau.

2.04

Artificial intelligence algorithms based on resonance

The **BBRC Neuroimaging Research Group** has developed a set of machine learning algorithms capable of predicting the presence of abnormal levels of Alzheimer's disease biomarkers in the brains of individuals without cognitive impairment, through data analysis derived from magnetic resonance.

The aim of this project is to use this technology as a preselection tool for clinical trials of Alzheimer's disease, before applying the current invasive and expensive techniques. In the short term, the use of this technology will prevent 63% of unnecessary cerebrospinal fluid and PET procedures, associated with a 40% cost reduction.

In the long term, the solution will bring us closer to effective preventive therapy for Alzheimer's disease, which now costs 32,000 euros per patient per year.

This project has received funding from CaixaImpulse, promoted by the "la Caixa" Foundation, and from the EIT Digital Health Call, with the support of the EIT, a body of the European Union.



The aim of this project is to use this technology as a preselection tool for clinical trials of Alzheimer's disease, before applying the current invasive and expensive techniques.



2.05

International consortia



Blood analysis to detect amyloid pathology

Researchers from the University of Gothenburg, the University of Lund, Roche Diagnostics International and the BBRC are collaborating on the project **"Fully automated plasma assays are screening tests for Alzheimer-related Amyloid beta (A β) pathology"**.

Its objective is to develop a detection and triage algorithm based on the analysis of blood biomarkers to detect amyloid pathology.

The new system will be designed so that, in the future, it can be implemented in primary care centers to identify people with cerebral amyloid pathology. Their method will be tested on participants from BBRC cohort studies, the Swedish BIOFINDER cohort and 15 care centers in Sweden.



The project is funded by the Alzheimer's Drug Discovery Foundation.



TRIBEKA

TRIBEKA is an initiative of the BBRC and the University of Edinburgh, driven to identify brain alterations prior to the onset of symptoms of Alzheimer's disease and other neurodegenerative diseases.

The platform has made available to the scientific community a neuroimaging database with widely characterised information from healthy middle-aged people, with the aim of advancing the design of treatments against the disease. The information is accessible through the website of the Global Alzheimer's Association Interactive Network (GAAIN).



TRIBEKA is funded by the Alzheimer's Association and an anonymous international charitable foundation.



alzheimer's association

2.05



AMYPAD was funded by grant 115952 of program 2 of the Innovative Medicines Initiative, which is a joint initiative of the European Commission's Horizon 2020 research and innovation program and the European Federation of Pharmaceutical Industries and Associations (EFPIA).



AMYPAD

The **Amyloid Imaging to Prevent Alzheimer's Disease (AMYPAD)** project is a European collaboration to improve the knowledge, diagnosis and treatment of Alzheimer's through the use of brain amyloid PET. The consortium is made up of 17 European institutions, including the BBRC, and other research centres, industry and associations of people and their families with Alzheimer's.

The AMYPAD diagnostic study aims to determine the value of amyloid PET as a diagnostic and therapeutic marker for Alzheimer's. This study involves 844 people from all over Europe, 101 of whom are BBRC participants.

On the other hand, the consortium is also running a prognosis study to better understand the natural history of the disease, involving 754 people, 176 of whom are from the BBRC. In 2022, 22 visits were made to the BBRC.

AMYPAD has officially ended its formal operation. Over the course of six years, the collaboration has contributed significantly to a better understanding of how amyloid PET can improve the diagnosis and treatment of Alzheimer's disease. In total, almost 3,600 amyloid PETs have been collected.

The last general assembly of AMYPAD took place on September 22-23 in Amsterdam, where attendees had the opportunity to discuss the latest results as well as plan future activities.

More information:
<https://amypad.eu/>

EU-FINGERS

The BBRC is a partner and leader of one of the work packages of the **"EURO-FINGERS: multimodal precision prevention toolbox for dementia in Alzheimer's disease"** project. This initiative aims to generate prevention tools for Alzheimer's disease and other dementias, and seeks to provide a common framework for multimodal Alzheimer's dementia prevention studies.

In the context of this project, a BBRC study participant is part of the EU-FINGERS advisory committee to provide advice and recommendations to researchers and enrich research with a diversity of voices and perspectives.

2.06

Clinical trials



The AHEAD study is a phase III, double-blind, parallel-treatment, placebo-controlled clinical trial that plans to enroll 1,400 participants worldwide.

AHEAD 3-45

The BBRC is one of the centers involved worldwide in the recruitment and execution of the AHEAD pharmacological clinical trial.

The research center of the Pasqual Maragall Foundation has been chosen for its long and solid experience in conducting clinical trials in cognitively healthy people with a higher risk of Alzheimer's.

The **AHEAD** study is a phase III, double-blind, parallel-treatment, placebo-controlled clinical trial that plans to enroll **1,400 participants worldwide** to evaluate the efficacy and safety of an investigational monoclonal antibody directed against the beta-amyloid protein (lecanemab) to prevent Alzheimer's disease in people between 55 and 80 years old, with a high risk of developing the disease.

1,400
Participants



2.07

Publications



In 2022, BBRC researchers published 46 articles in prestigious scientific journals of reference mainly in the field of Alzheimer's and neurodegenerative diseases.

Most outstanding publications

- Fauria K, Minguillon C, Knezevic I, Tort-Colet N, Stankeviciute L, Hernández L, Rădoi A, Deulofeu C, Fuentes-Julián S, Turull I, Fusté D, Sánchez-Benavides G, Arenaza-Urquijo EM, Suárez-Calvet M, Holst SC, Garcés P, Mueggler T, Zetterberg H, Blennow K, Arqueros A, Iranzo Á, Domingo Gispert J, Molinuevo JL, Grau-Rivera O. **Exploring cognitive and biological correlates of sleep quality and their potential links with Alzheimer's disease (ALFASleep project): protocol for an observational study.** *BMJ Open.* 2022 Dec 30;12(12):e067159. doi:10.1136/bmjopen-2022-067159. PMID: 36585141; PMCID: PMC9809234.
- Ashton NJ, Puig-Pijoan A, Milà-Alomà M, Fernández-Lebrero A, García-Escobar G, González-Ortiz F, Kac PR, Brum WS, Benedet AL, Lantero-Rodríguez J, Day TA, Vanbrabant J, Stoops E, Vanmechelen E, Triana-Baltzer G, Moughadam S, Kolb H, Ortiz-Romero P, Karikari TK, Minguillon C, Hernández Sánchez JJ, Navalpotro-Gómez I, Grau-Rivera O, María Manero R, Puente-Periz V, de la Torre R, Roquer J, Dage JL, Zetterberg H, Blennow K, Suárez-Calvet M. **Plasma and CSF biomarkers in a memory clinic: Head-to-head comparison of phosphorylated tau immunoassays.** *Alzheimers Dement.* 2022 Nov 12. doi:10.1002/alz.12841. Epub ahead of print. PMID: 36370462.
- Blackman J, Stankeviciute L, Arenaza-Urquijo EM, Suárez-Calvet M, Sánchez-Benavides G, Vilor-Tejedor N, Iranzo A, Molinuevo JL, Gispert JD, Coulthard E, Grau-Rivera O; European Prevention of Alzheimer's Disease (EPAD) Consortium. **Cross-sectional and longitudinal association of sleep and Alzheimer biomarkers in cognitively unimpaired adults.** *Brain Commun.* 2022 Nov 3;4(6):f-cac257. doi:10.1093/braincomms/f-cac257. PMID: 36337343; PMCID: PMC9630979.
- Rodríguez-Fernández B, Vilor-Tejedor N, Arenaza-Urquijo EM, Sánchez-Benavides G, Suárez-Calvet M, Operto G, Minguillón C, Fauria K, Kollmorgen G, Suridjan I, de Moura MC, Piñeyro D, Esteller M, Blennow K, Zetterberg H, De Vivo I, Molinuevo JL, Navarro A, Gispert JD, Sala-Vila A, Crous-Bou M; **ALFA study. Genetically predicted telomere length and Alzheimer's disease endophenotypes: a Mendelian randomization study.** *Alzheimers Res Ther.* 2022 Nov 7;14(1):167. doi:10.1186/s13195-022-01101-9. PMID: 36345036.

2.07

46
Articles

96%
Q1

82%
D1



Q1 refers to the first quartile, the top 25%, and D1 to the first decile, i.e. the top 10 publications in their field.

- Poudevida S, de Sola S, Brugulat-Serrat A, Mas-Vall Llosera G, Castillo A, Huesa G, Piromalli D, Gramunt-Fombuena N. **Efectividad de una intervención psicoterapéutica grupal en la mejora del bienestar de personas cuidadoras de un familiar con enfermedad de Alzheimer: estudio CuiDem** [Effectiveness of a psychotherapeutic intervention group program in the improvement of caregiver well-being in Alzheimer's disease patients' family caregivers: the CuiDem study]. *Rev Neurol.* 2022 Oct 16;75(8):203-211. Spanish. doi:10.33588/rn.7508.2022180. PMID: 36218251.
- Sadeghi I, Gispert JD, Palumbo E, Muñoz-Aguirre M, Wucher V, D'Argenio V, Santpere G, Navarro A, Guigo R, Vilor-Tejedor N. **Brain transcriptomic profiling reveals common alterations across neurodegenerative and psychiatric disorders.** *Comput Struct Biotechnol J.* 2022 Aug 19;20:4549-4561. doi:10.1016/j.csbj.2022.08.037. PMID: 36090817; PMCID: PMC9428860.
- Akinci M, Sánchez-Benavides G, Brugulat-Serrat A, Peña-Gómez C, Palpatzis E, Shekari M, Deulofeu C, Fuentes-Julian S, Salvadó G, González-de-Echávarri JM, Suárez-Calvet M, Minguillón C, Fauria K, Molinuevo JL, Gispert JD, Grau-Rivera O, Arenaza-Urquijo EM; **ALFA Study. Subjective cognitive decline and anxious/depressive symptoms during the COVID-19 pandemic: what is the role of stress perception, stress resilience, and β -amyloid?** *Alzheimers Res Ther.* 2022 Sep 6;14(1):126. doi: 10.1186/s13195-022-01068-7. PMID: 36068641.
- Rodríguez-Fernández B, Gispert JD, Guigo R, Navarro A, Vilor-Tejedor N, Crous-Bou M. **Genetically predicted telomere length and its relationship with neurodegenerative diseases and life expectancy.** *Comput Struct Biotechnol J.* 2022 Aug 6;20:4251-4256. doi: 10.1016/j.csbj.2022.08.006. PMID: 36051868; PMCID:PMC9399257.
- Milà-Alomà M, Ashton NJ, Shekari M, Salvadó G, Ortiz-Romero P, Montoliu-Gaya L, Benedet AL, Karikari TK, Lantero-Rodriguez J, Vanmechelen E, Day TA, González-Escalante A, Sánchez-Benavides G, Minguillon C, Fauria K, Molinuevo JL, Dage JL, Zetterberg H, Gispert JD, Suárez-Calvet M, Blennow K. **Plasma p-tau231 and p-tau217 as state markers of amyloid- β pathology in preclinical Alzheimer's disease.** *Nat Med.* 2022 Aug 11. doi: 10.1038/s41591-022-01925-w. Epub ahead of print. PMID: 35953717.

2.07

- Akinci M, Peña-Gómez C, Operto G, Fuentes-Julian S, Deulofeu C, Sánchez-Benavides G, Milà-Alomà M, Grau-Rivera O, Gramunt N, Navarro A, Minguillón C, Fauria K, Suridjan I, Kollmorgen G, Bayfield A, Blennow K, Zetterberg H, Molinuevo JL, Suárez-Calvet M, Gispert JD, Arenaza-Urquijo EM. **Pre-pandemic Alzheimer Disease Biomarkers and Anxious-Depressive Symptoms During the COVID-19 Confinement in Cognitively Unimpaired Adults.** *Neurology*. 2022 Aug 2;10.1212/WNL.0000000000200948. doi: 10.1212/WNL.0000000000200948. Epub ahead of print. PMID: 35918160.
- Salvadó G, Milà-Alomà M, Shekari M, Ashton NJ, Operto G, Falcon C, Cacciaglia R, Minguillon C, Fauria K, Niñerola-Baizán A, Perissinotti A, Benedet AL, Kollmorgen G, Suridjan I, Wild N, Molinuevo JL, Zetterberg H, Blennow K, Suárez-Calvet M, Gispert JD; **ALFA Study. Reactive astrogliosis is associated with higher cerebral glucose consumption in the early Alzheimer's continuum.** *Eur J Nucl Med Mol Imaging*. 2022 Jul 18. doi: 10.1007/s00259-022-05897-4. Epub ahead of print. PMID: 35849149.
- Cacciaglia R, Operto G, Falcón C, de Echavarrri-Gómez JMG, Sánchez-Benavides G, Brugulat-Serrat A, Milà-Alomà M, Blennow K, Zetterberg H, Molinuevo JL, Suárez-Calvet M, Gispert JD; **ALFA study. Genotypic effects of APOE-ε4 on resting-state connectivity in cognitively intact individuals support functional brain compensation.** *Cereb Cortex*. 2022 Jun 27;bhac239. doi:10.1093/cercor/bhac239. Epub ahead of print. PMID: 35753703.
- Salvadó G, Shekari M, Falcon C, Operto G, Milà-Alomà M, Sánchez-Benavides G, Cacciaglia R, Arenaza-Urquijo E, Niñerola-Baizán A, Perissinotti A, Minguillon C, Fauria K, Kollmorgen G, Suridjan I, Molinuevo JL, Zetterberg H, Blennow K, Suárez-Calvet M, Gispert JD; **ALFA Study. Brain alterations in the early Alzheimer's continuum with amyloid-β, tau, glial and neurodegeneration CSF markers.** *Brain Commun*. 2022 May 24;4(3):fcac134. doi:10.1093/braincomms/fcac134. PMID: 35702732; PMCID: PMC9185381.
- Suárez-Calvet M. **CSF p-tau231: A biomarker for early preclinical Alzheimer?** *EBioMedicine*. 2022 Mar 12;77:103936. doi: 10.1016/j.ebiom.2022.103936. Epub ahead of print. PMID: 35290829; PMCID: PMC8919211.
- Cacciaglia R, Salvadó G, Molinuevo JL, Shekari M, Falcon C, Operto G, Suárez-Calvet M, Milà-Alomà M, Sala A, Rodriguez-Vieitez E, Kollmorgen G, Suridjan I, Blennow K, Zetterberg H, Gispert JD; Alzheimer's Disease Neuroimaging Initiative; **ALFA study. Age, sex and APOE-ε4 modify the balance between soluble and fibrillar β-amyloid in non-demented individuals: topographical patterns across two independent cohorts.** *Mol Psychiatry*. 2022 Mar 2. doi:10.1038/s41380-022-01436-7. Epub ahead of print. PMID: 35236958.

2.08

Diffusion of results

Carriers of the APOE ϵ 2 gene may have a larger brain reserve and better protection against Alzheimer's

In March 2022, a multicenter study led by researchers from the BBRC's Neuroimaging Research Group, a center promoted by the "la Caixa" Foundation, was presented, which showed that APOE ϵ 2 carriers could have a greater brain reserve and, therefore, additional protection against Alzheimer's that would allow them to better face aging and the consequences of this disease.

Having two copies of the apolipoprotein E (APOE ϵ 2) allele provides strong protection against Alzheimer's disease. However, the effect of this genotype on the volume of gray matter in people without cognitive impairment had not been studied until now given its low prevalence.

This new research has shown that carriers of the APOE ϵ 2 gene have double protection.

BBRC researchers detect that carriers of the APOE- ϵ 4 gene accumulate amyloid early in the hippocampus

The study, published in March 2022 in the prestigious journal *Molecular Psychiatry*, is based on an evaluation of fibrillar accumulations of brain amyloid protein using PET imaging and levels of soluble amyloid protein, present in the cerebrospinal fluid, with respect to three risk factors for Alzheimer's disease: advanced age, female sex and the APOE ϵ 4 allele.

The results indicate that risk factors have a direct effect on the behavior of the amyloid protein and influence the localisation of its accumulation. The innovative design of the study has allowed the researchers to detect that carriers of the APOE ϵ 4 gene, linked to a higher risk of developing Alzheimer's, present an early accumulation of the amyloid protein in the hippocampus area.

Traditionally, amyloid deposition in this area of the brain has been described in advanced stages of Alzheimer's disease.



Having two copies of the apolipoprotein E (APOE ϵ 2) allele provides strong protection against Alzheimer's disease.

2.08



Los biomarcadores en plasma p-tau231 y p-tau217 son óptimos para mostrar los primeros indicios de acumulación de amiloide en el cerebro.



A new study determines two biomarkers in the blood that better capture the first signs of Alzheimer's

In August 2022, an international team led by Dr. Marc Suárez-Calvet, a BBRC researcher, has discovered that the plasma biomarkers p-tau231 and p-tau217 are optimal for showing the first signs of amyloid accumulation in the brain. It has been shown that the plasma biomarker p-tau231 is particularly suitable for capturing incipient brain changes related to the amyloid protein before the plaque of this protein shows up.

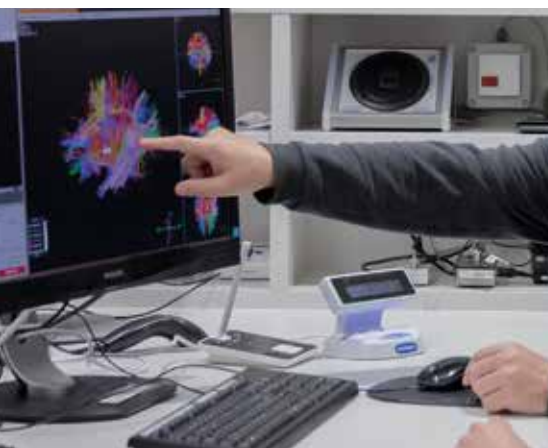
The results of this analysis have been published in the prestigious scientific journal *Nature Medicine*, and indicate that p-tau231 is a promising blood biomarker for detecting cognitively healthy people at high risk of developing Alzheimer's disease. This finding will help drive clinical trials on the preclinical phase of Alzheimer's disease.

Biomarker alterations are associated with higher gray matter volumes and increased brain glucose metabolism in cognitively healthy individuals

In July 2022, the results of a study are released showing that the increase in neuroinflammatory biomarkers that are associated with alterations of the p-tau protein are linked to higher volumes of gray matter and an increase in brain metabolism of glucose. These alterations would reverse in later stages of the disease, when neurodegeneration produces changes in the brain in the opposite direction.

The study was published in the journal *Brain Communications*, and was led by researcher Gemma Salvadó. In addition to the BBRC, scientific staff from the Hospital del Mar Institute of Medical Research in Barcelona, the Centro de Investigación Biomédica en Red de Fragilidad y Envejecimiento Saludable (CIBERFES) and the University of Gothenburg, in Sweden, among others, are also participating.

2.08



Alzheimer's disease risk markers such as beta amyloid protein or neuroinflammation are linked to increased symptoms of anxiety and depression during the confinement due to COVID-19.

New study linking Alzheimer's biomarkers to symptoms of anxiety and depression during COVID-19 confinement

In August 2022, the main results of the "Pre-pandemic Alzheimer disease biomarkers and anxious-depressive symptoms during the COVID-19 confinement in cognitively unimpaired adults" study, published in *Neurology*[®], are presented. Alzheimer's disease risk markers such as beta amyloid protein or neuroinflammation are linked to increased symptoms of anxiety and depression during the confinement due to COVID-19.

The research has studied, by means of multivariate analysis regression models, the association between Alzheimer's-related biomarkers and socio-demographic factors, as well as the results of the hospital anxiety and depression scale questionnaire HADS (Hospital Anxiety and Depression Scale) during confinement and before.

We demonstrate greater brain glucose consumption in the early stages of Alzheimer's associated with astrocyt activation

In September 2022, we showed that there is a greater consumption of brain glucose in the early stages of Alzheimer's associated with the activation of astrocytes, a characteristic process of neurodegenerative diseases that affects some of the main brain cells.

This process produces changes in cerebral metabolic regulation and actively contributes to the evolution of the disease. Research advances also support the idea that glial fibrillary acidic protein (GFAP) measured in blood may be an earlier marker of astrocyte activation than the same protein measured in cerebrospinal fluid, and opens new avenues for blood biomarker research and for better Alzheimer's prevention.

This pioneering study is one of the first investigations into the involvement of the glial system in neurodegenerative diseases.

2.09

Scholarships and competitive aid

List of grants awarded:



The BBRC obtained a total of 10 grants in 2022 to carry out scientific projects.

Obtaining these funds endorses the rigor, excellence, competitiveness and innovative character of the center's research, and allows us to advance in the prevention of Alzheimer's disease.



12
Grants

The clinical impact of the novel Alzheimer's blood-based biomarkers: the PLASMAR study.

PI: Dr. Marc Suárez-Calvet

Financer

Instituto de Salud Carlos III

Reference

Project PI22/00456 financed by Instituto de Salud Carlos III (ISCIII) and co-financed by the European Union.

Validation of liquid and imaging biomarkers for the diagnosis of dementia with prodromal Lewy bodies.

PI: Gonzalo Sánchez-Benavides

Financer

Instituto de Salud Carlos III

Reference

Project PMP22/00100 financed by ISCIII under the PERTE para la Salud de Vanguardia and charged with the European funds of the PRTR.

PMP-DEGESCO: Validation of a precision medicine tool based on online cognitive evaluation, genetic risk stratification and bloodbased biomarkers for the identification of preclinical Alzheimer's Disease.

PI: Juan Domingo Gispert, Marc Suárez-Calvet

Financer

Instituto de Salud Carlos III

Reference

Project PMP22/00022 financed by ISCIII under the PERTE para la Salud de Vanguardia and charged with the European funds of the PRTR.

Ramon y Cajal Program

PI: Raffaele Cacciaglia

Financer

Ministry of Science and Innovation (MCIN) / State Research Agency (AEI)

Reference

Project RYC2021-031128-I funded by MCIN/AEI/10.13039/501100011033 and the European Union "NextGenerationEU"/"PRTR".

2.09

Crosstalk between exercise and brain lipid metabolism in the protection against Alzheimer's disease.

PI: Eider M Arenaza- Urquijo

Financer

Carlos III Health Institute - International Joint Programming Projects.

Reference

Project AC22/00060 funded by Instituto de Salud Carlos III (ISCIII).

An integrative approach to schizophrenia risk prediction leveraging genetics, brain imaging and neuroepithelium's transcriptome.

PI: Carles Falcón

Financer

La Marató de TV3

Reference

Project 202230-31 financed by the La Marató Foundation of TV3.

Mechanisms of neural compensation across the stages of preclinical Alzheimer's disease revealed by multimodal brain networks sPRE-AD-NETWORKS).

PI: Raffaele Cacciaglia

Financer

Ministry of Science and Innovation (MCIN) / State Research Agency (AEI).

Reference

Project PID2021-125433OA-100 funded by MCIN/AEI/10.13039/501100011033/- FEDER, EU.

ISCIII-HEALTH Seal of Excellence

PI: Laura García

Financer

Instituto de Salud Carlos III

Reference

Project IHMC22/00013 funded by Instituto de Salud Carlos III and the European Union "NextGenerationEU"/"PRTR".



2.09



Precision medicine platform in neurodegenerative disease.

PI: Juan Domingo Gispert

Financer

Innovative Health Initiative (IHI) - European Commission

Reference

Project 101112145 – PROMINENT funded by Innovative Health Initiative (IHI) and the European Union.

Aid to support the scientific activity of research groups in Catalonia - Consolidated Research Group: Physiology of cognition and Alzheimer's prevention.

PI: Karine Fauria

Financer

AGAUR - Grants to support the scientific activity of research groups in Catalonia.

Reference

Project 2021 SGR 00913 funded by the Department of Research and Universities of the Government of Catalonia.

Grants to support the scientific activity of research groups in Catalonia - Emerging Research Group: Research group in fluid biomarkers and translational neurology.

PI: Marc Suárez-Calvet

Financer

AGAUR - Grants to support the scientific activity of research groups in Catalonia.

Reference

Project 2021 SGR 01137 funded by the Department of Research and Universities of the Government of Catalonia.

2.10

Congresses



Throughout the year, our research staff participated in different conferences and congresses dedicated to research into Alzheimer's and other neurodegenerative diseases related to aging.

From March 15 to 20

Barcelona

Participation of Marta del Campo, Gemma Salvadó, Mahnaz Shekari and Laura Stankeviciute in the 16th edition of the International Congress on Alzheimer's and Parkinson's (AD/PD).

March 24

On line

Participation of Eider Arenaza-Urquijo in the 16th edition of the World Congress of Controversies in Neurology.

March 30

Madrid

Participation of Aleix Sala-Vila in the 26th International Conference on Practical Nutrition.

May 7

London

Participation of Grégory Operto in the joint annual meeting of the ISMRM-ESMRMB.

From May 25 to 27

Madrid

Participation of Patricia Genius, Armand González, Blanca Rodríguez-Fernández and Natàlia Vilor-Tejedor in the 18th edition of the Spanish Biometrics Conference (CEB 2022).

June 5

Turku

Participation of Mahnaz Shekari in the Turku PET Symposim.

June 19

Glasgow

Participation of Natàlia Vilor-Tejedor in the annual meeting of the Organisation for Human Brain Mapping (OHBM 2022).

June 24

Salamanca

Participation of Patricia Genius, Juan Domingo Gispert and Blanca Rodríguez-Fernández in the Global Summit on Neurodegenerative Diseases NEURO 2020/2022.

June 30 and July 1

Berlin

Participation of Federica Anastasi, Marta del Campo, Armand González-Escalante and Marta Milà-Alomà at the meeting of the Society for CSF Analysis and Clinical Neurochemistry (CSF 2022).

July 28

Vigo

Natàlia Vilor-Tejedor's participation in the 5th annual meeting of the Biomedical Research Center (CINBIO), "Research for life".

From July 6 to 8

Vancouver

Participation of Müge Akıncı, Eider Arenaza-Urquijo, Anna Brugulat, Lúdia Canals Gispert, Alba Cañas-Martínez, Eleni Palpatzis and Gonzalo Sánchez-Benavides at the 16th International Congress of the International Neuromodulation Society (INS 2022).

2.10

From July 27 to 29

Cambridge

Participation of Aleix Sala-Vila in the Brain and Ocular Nutrition Conference (BON) 2022.

From September 14 to 16

Valencia

Participation of Patricia Genius, Armand González-Escalante and Blanca Rodríguez-Fernández in the 6th Scientific Conference of Students of the Spanish Society of Biostatistics (SEB).

From September 28 to 30

Rome

Federica Anastasi's participation in the 5th Brainstorming Research Assembly for Young Neuroscientists (BraYn 2022).

September 29

Athens

Participation of Laura Stankeviciute in the 26th conference of the European Sleep Research Society (SLEEP Europe 2022).

From October 15 to 19

Barcelona

Participation of Juan Domingo Gispert and Mahnaz Shekari in the 35th Annual Congress of the European Association of Nuclear Medicine (EANM 2022).

From October 19 to 21

Maó

Participation of Carles Falcón in the 37th Scientific Meetings of the Mediterranean "Physics in Biology and Medicine 2022".

From October 18 to 21

Pamplona

Participation of Ana Fernández Arcos at the 30th Annual Meeting of the Spanish Sleep Society.

November 10

Barcelona

Participation of Laura García-González in the conference of the Barcelona Institute of Science and Technology (BIST 2022).

November 11

Barcelona

Federica Anastasi's participation in the 2022 Protenomics Annual Symposium of the Center for Genomic Regulation (CRG) and the Catalan Society of Biology (SCB).

From November 15 to 19

Seville

Participation of Ana Fernández Arcos and Marc Suárez-Calvet at the 74th annual meeting of the Spanish Society of Neurology (SEN).

From November 29 to December 2

San Francisco

Participation of Irene Cumpido and Marta Milà-Alomà in the Clinical Trials on Alzheimer's Disease Conference (CTAD 2022).


Congress of the Alzheimer's Association 2022

The BBRC had, once again, an outstanding participation in the Alzheimer's Association International Conference (AAIC).

In 2022 the researchers shared the results of their research in a total of two outstanding communications, seven oral presentations, two short talks and fifteen posters.

The meeting took place in San Diego, in the United States, between July 31 and August 4, and could also be followed online.





trans forma tion.

**We look for solutions and explore
new ways to create relevant results.**

**At the Pasqual Maragall Foundation we work actively to change the social
consideration of the disease and of people diagnosed with Alzheimer's, to make
known the effects and impact of the disease through social action and dissemination.**

With this aim, we support families living with Alzheimer's through group training and support programs for caregivers of family members with the disease. Likewise, we organise dissemination and awareness actions, offering talks, training and other actions.

03.

3.01

Group programs for caregivers

Therapeutic groups

Throughout 2022, the therapeutic group program organized **22 new groups in which 209 non-professional caregivers** of people with Alzheimer's participated. 10 groups were held face-to-face and 12 online.

The program received the grant awarded by the Department of Social Rights (in charge of the allocation of 0.7% of personal income tax) of the Generalitat de Catalunya and the funding of Barcelona City Council, Agbar and Santa Lucía Seguros. There were 10 groups with 100 participants.



Currently, 1,555 carers have participated in the 143 groups organised since the start of the initiative in 2012 throughout Spain.

With the support of:



3.01



The aim of the group programs is to offer caregivers the information and tools necessary to understand and accept Alzheimer's disease.

The sessions aim to improve the quality of life of carers, which has a direct impact on the quality of the care they provide and the well-being of the people with Alzheimer's in their care.

Program “Learn to take care and take care of yourself”

Through the program “**Learn to take care and take care of yourself**” we offer this online psychoeducational space to caregivers. The aim is to provide carers with the necessary tools to manage day-to-day life with a person with Alzheimer's and to increase both their own well-being and that of the person they care for.

During the sessions, tools and resources are provided to improve the quality of life of caregivers, addressing different topics related to Alzheimer's disease, such as the diagnosis, communication with the diagnosed person or the emotional wear and tear related to the caregiver role.

The program received a grant from the Department of Health of the Generalitat de Catalunya and also the support of Barcelona City Council, Santa Lucía Seguros, Agbar and FIATC. **12 groups were implemented with 120 participants.**

With the support of:



3.02

Awareness and dissemination activities



2.3
millions
visits

Blog “Let’s talk about Alzheimer’s”

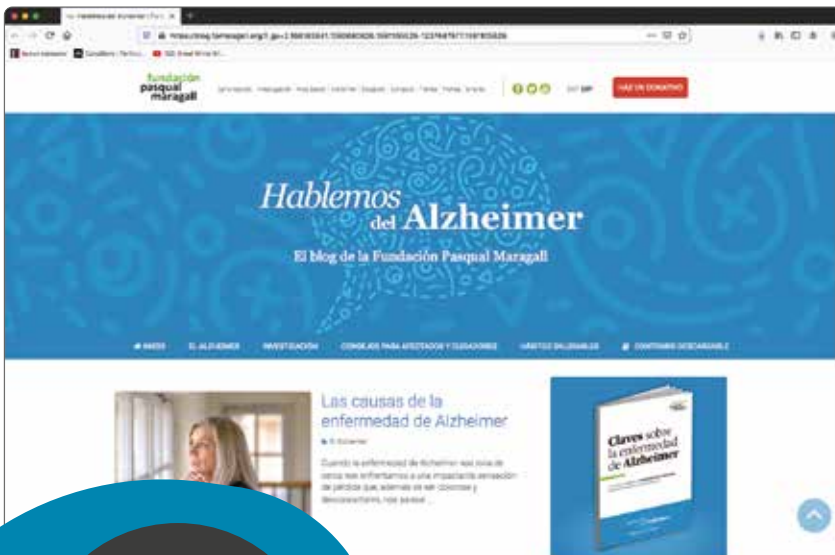
The Pasqual Maragall Foundation also offers useful, rigorous and verified information about the disease through the blog “*Let’s talk about Alzheimer’s*”.

This tool was launched in 2017 and is aimed at affected people, their carers, relatives and the general public, and receives more than 2.3 million visits annually. During 2022, 24 new articles have been published, and there are currently 255.

September 21: a day to forget

World Alzheimer’s Day is celebrated every September 21, a day to raise awareness about the disease in which the Pasqual Maragall Foundation claims its mission and vision. The Pasqual Maragall Foundation **has created the label #Undiaperoblidar (A day to forget)**, to highlight that in order to erase September 21 from the calendar, an awareness of the importance of investing in research is needed.

In addition, as part of Alzheimer’s month, in September, the Foundation presented the **Pasqual Maragall Researchers Programme (PMRP)**, a research grant program with the aim of promoting translational research projects focused on Alzheimer’s or other age-related neurodegenerative diseases.



255
New
articles

<https://blog.fpmaragall.org/>



3.02



The festival is promoted by the Pasqual Maragall Foundation, co-organised with the Uszheimer Foundation and Minimal Films, and with the collaboration of the Spanish Foundation for Science and Technology (FECYT) - Ministry of Science and Innovation.

Third edition of the RECORDA series of talks

More than 800 people participated in the third edition of the RECORDA (REMEMBER) series of online talks during the month of April, a space for debate and dissemination dedicated to the latest scientific advances in the field of prevention, as well as to offer advice and recommendations to all the people who live with the disease.

The session "**Alzheimer and sleep: the egg or the chicken?**" was focused on the effects of insomnia and poor sleep quality on the development of long-term cognitive problems and diseases such as Alzheimer's, while in the second session, "**How to manage day-to-day life with a loved one with Alzheimer's**", it was discussed about practical advice for family caregivers, the process of communicating the diagnosis to the affected person or the daily activities that he/she can do depending on the phase of the disease.



The festival recognised the career of actress Carme Elías with the Brain Film Fest Special Award.

Fifth edition of the Brain Film Fest

The **Brain Film Fest**, the film festival about the brain, celebrated its fifth edition, **from March 17 to 20 at the Barcelona Contemporary Culture Center (CCCB).**

The festival is the only international film event dedicated to showing and promoting the creation and dissemination of short films related to any aspect of the brain. In 2022, the festival recognised the career of actress **Carme Elías** with the Brain Film Fest Special Award, in an event in which the actress announced that she had recently been diagnosed with Alzheimer's.

In the 5th edition, 37 informative activities were organised as part of the festival, 2,600 people were registered in the various sessions and 10,700 views were reached on Filmin and YouTube.

3.02



Street awareness

Throughout 2022, the informants of the Pasqual Maragall Foundation held conversations with **145,303 people** in various parts of the Spanish geography, a street-level contact in order to disseminate and expose the Foundation's projects to promote research against the disease.



145.303
Conversations
at street level

Alzheimer's commitment

Twelve Spanish entities and organisations that work in the field of Alzheimer's and the elderly have joined the manifesto **Commitment to a future without Alzheimer's** so that the fight against this disease is a priority in public policies and the necessary efforts are made to have the tools to prevent and cure this pathology.

“

"Recent experience has shown us that scientific knowledge is essential to find solutions, but dementias have been and are still diseases forgotten in the budgets intended to promote research," the document states.



3.02

Institutional visits

During 2022, the Pasqual Maragall Foundation has received almost 20 institutional visits, as part of the invitations given to political representatives to raise awareness of the reality of Alzheimer's disease and the importance of its research.

The president of the central government, Pedro Sánchez; the Minister of Science and Innovation, Diana Morant; the Minister of Health of the Generalitat of Catalonia, Josep Maria Argimon; the councilor for Health, Aging and Care of the Barcelona City Council, Gemma Tarafa, or the president of the College of Doctors of Barcelona (COMB), Jaume Padrós, visited the headquarters of the Foundation in order to know closely the social and scientific project of the Foundation and the Barcelonaβeta Brain Research Center (BBRC), based on the early detection and prevention of Alzheimer's.

Diana Garrigosa award

As part of the **V Annual Meeting of Members and Volunteers**, which took place in November, the Diana Garrigosa awards were presented for the first time to two life trajectories: Manuela Carmena, emeritus magistrate and former mayor of Madrid, and Fernando Ónega, journalist and creator of the online portal *65ymás*.



The Pasqual Maragall Foundation has created the awards to give visibility to the legacy of **Diana Garrigosa (1944-2020)** and in memory of her figure. The awards will be presented annually to people over 65 years of age, with an outstanding personal and professional career and who, in addition, are models of veterans who are active and committed to the defense of social values and rights.



The awards will be presented annually to people over 65 years of age, with an outstanding personal and professional career.

3.02

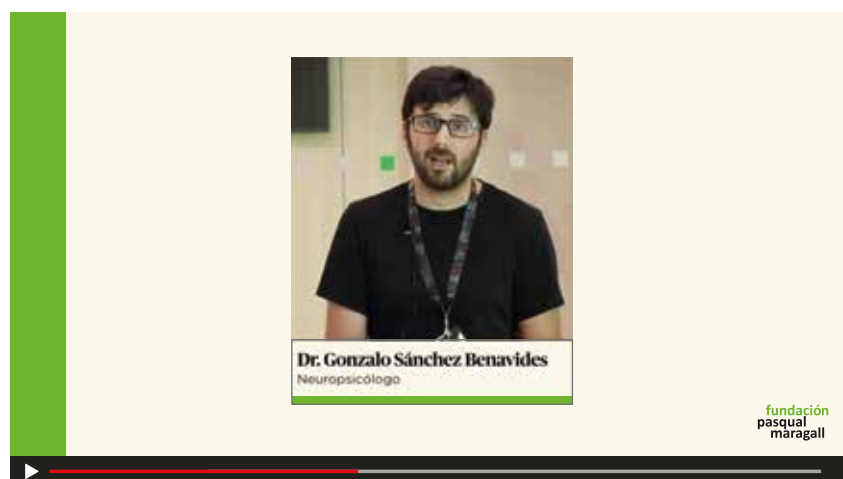


An expert voice from the Foundation explains in an easy way and with a close and simple vocabulary, common concepts of the disease.

Alzheimer's dictionary

The Pasqual Maragall Foundation launched the Alzheimer's Dictionary in June 2022 to explain key concepts related to the disease, with the aim of making key definitions and character concepts available to the population in an understandable way technical and scientific related to the disease.

The **Alzheimer's Dictionary** is made up of a series of short videos, between 30 seconds and one minute, that are published monthly on the different channels of the Pasqual Maragall Foundation.



In these pieces, an expert voice from the Foundation explains in an easy way and with a close and simple vocabulary, common concepts of the disease such as *dementia, resilience, beta-amyloid protein and tau, cognitive stimulation or caregiver syndrome.*



3.02

Talks, seminars and conferences



February 11

Training by Dr. Nina Gramunt "Care for the person affected by dementia. Communicative and relational aspects" to students of the Master's in Person Centered Care at the University of Vic.

February 17

Talk about Alzheimer's and the Pasqual Maragall Foundation to the employees of the Credit Suisse company by Dr. Nina Gramunt.

February 23

Talk "Let's talk about Alzheimer's" to the employees of the Grupo Suez company by Dr. Nina Gramunt.

February 12, April 20, June 30 and October 13

Talks to high school and graduate students about Alzheimer's by Dr. Nina Gramunt and Dr. Susana de Sola.

March 11

Talk "Today's habits, tomorrow's brain health" to the workers of the EDM company by Dr. Nina Gramunt.

April 1, September 23 and October 3

Talk to professionals in training of the socio-health care course at the Ared Foundation by Dr. Nina Gramunt.

April 4

Talk "How to manage day-to-day life with a person with Alzheimer's" by Dr. Sandra Poudevida as part of the REMEMBER cycle.

April 25

Talk on Alzheimer's disease organised by the Generalitat de Catalunya by Dr. Nina Gramunt.

25 de abril

Talk by Dr. Sandra Poudevida to the spectators of the Poliorama Theater about the impact on families of caring for a person with Alzheimer's.



3.02



May 5

Training for students of the Sociosanitary Care Certificate of the FAD Sant Joan de Déu on the impact of Alzheimer's on people, by Dr. Sandra Poudevida.

May 26

Talk about Alzheimer's to 3rd year ESO students winners of the Brain Film Fest Neuroart Award by Dr. Nina Gramunt.

June 9

Talk on the prevention of Alzheimer's in the framework of the CaixaBank Talks by Dr. Nina Gramunt.

June 10

Talk on the prevention of Alzheimer's at the Mapfre company as part of Health Week by Dr. Nina Gramunt.

October 4

Talk "Today's habits, tomorrow's brain health" by Dr. Nina Gramunt in the framework of the Elderly Manifesto organised by Mataró City Council.

October 20

Talk "Can Alzheimer's be prevented?" by Dr. Nina Gramunt organised jointly with the Rosa Maria Vivar Foundation.

October 24

Talk "Let's talk about Alzheimer's" by Dr. Nina Gramunt to the workers of the Cialfir company.

November 9

Instagram Live in the framework of World Caregiver Day by therapist Glòria Mas.

3.02



Media



33

Press releases



125

Interviews



1,931

Media impacts



+ 469 M

Total audience



+ 8 M

Advertising value equivalent

Social Networks



13,76 M

Impressions



97,683

Followers



1,137

Publications



3,500

Responses to comments





con nec tion.

Solidarity has not stopped growing during 2022 and our figures prove it. More than 11,000 people joined our commitment to achieve a future without Alzheimer's, which has allowed us to grow our social base, which is what gives us the strength and support necessary to achieve our goal.

Once again, people and organisations from all over the country, through initiatives and unforgettable ideas, have put their creativity and perseverance at the service of the fight to defeat Alzheimer's.

04.

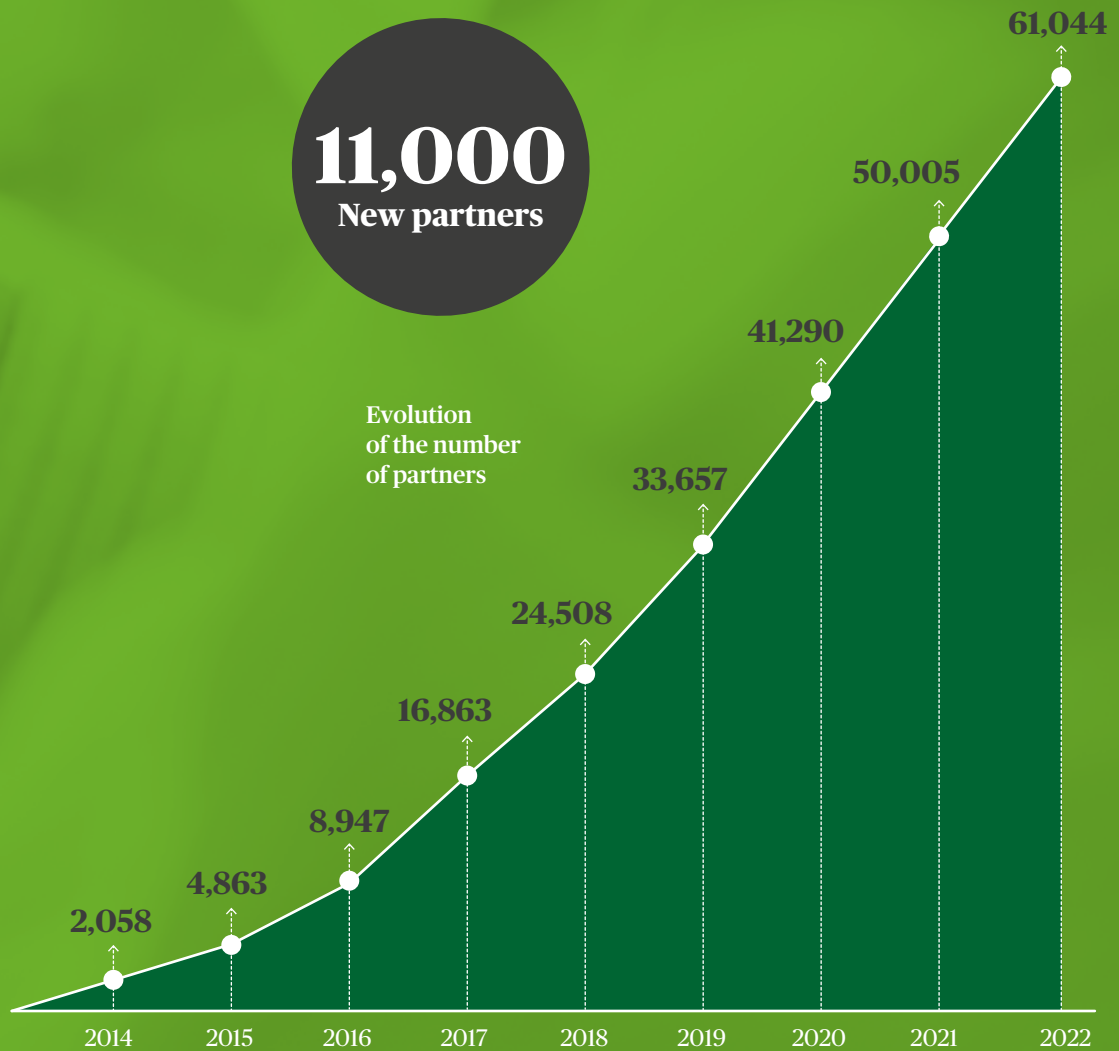
4.01

Partners and donors



In 2022 we welcomed more than **11,000 new partners**, who with their regular contributions help to finance research and social projects, providing them with stability and direction.

During this year, donations also increased by injecting more than **€375,000** into the Foundation's project.



4.01

“What we never knew about Alzhe”

Examine the evolution of biomarkers in 10,000 blood samples stored for 10 years to detect the disease early and bring us closer to the end of Alzheimer's.

This was the objective with which we launched the campaign "What we never knew about Alzheimer's", which exceeded all expectations. The involvement of individuals and companies made it possible to collect €283,051, well above the initial goal of €150,000.

The sum achieved has enabled the launch of this pioneering research which represents a key step in the early detection of Alzheimer's.



Montse

Partner of the Foundation and protagonist of the campaign "What we never knew about Alzheimer's".

"I felt your support at a time when we were very lost. Seeing all that you are doing to research this disease and detect it early gave me a lot of hope."



Victor Manuel

Partner of the Foundation and protagonist of the campaign "What we never knew about Alzheimer's".

"I think there is a time of hope and we are getting closer and closer to the day when early detection is a reality."



María José

Partner who has left a legacy to the Foundation, and protagonist of the campaign "What we never knew about Alzheimer's".

"The Pasqual Maragall Foundation needs to continue researching. And research requires resources. When I am no longer there, I think leaving a part of my money to the Foundation is the best thing I can do."

4.02

Unforgettable actions and entities

Solidarity companies



During 2022, solidarity initiatives and charity events to raise funds against Alzheimer's have grown exponentially.

Thus, thanks to the commitment of individuals and companies, 244 solidarity initiatives have been organized, more than double the previous year.

These are some of the unforgettable stories we experienced in 2022.

244

Solidarity initiatives

Solidarity payroll for early detection

In 2022, Carglass workers decided to support the Pasqual Maragall Foundation's Alzheimer's prevention research through the Solidarity Payroll.

The donation obtained was allocated to the **Beta-AARC study**, the aim of which is to make a step forward in the early diagnosis of Alzheimer's.

In addition, this study received the Premi Solidari del Seguro 2022, an award that reflects the social commitment and solidarity of the Spanish insurance sector. In total, in 2022 the company made a donation of more than **€19,000** between the different campaigns.



Solidarity concert to care for those who care

The **Fundació Mutua General de Seguros (MGS)** organised a charity concert for the benefit of the Pasqual Maragall Foundation to improve the quality of life of people living with the disease.

MGS workers and collaborators threw themselves into this initiative and managed to raise **€6,500** to finance Alzheimer's research and support programs for caregivers of family members with the disease.



4.02

Healthy Initiatives for Disease Research

In 2022, **Jocs Interempresas**[®] collaborated with the Foundation to support our research projects.



Through team sport, more than **1,200 participants** from different collaborating companies contributed to the Pasqual Maragall Foundation, together with the Aspasim Foundation, receiving a total of **€8,104** to invest in the prevention and early detection of Alzheimer's.

Origami against Alzheimer's

The **Fundació Mútua General de Catalunya**, through its solidarity project **"1 origami 1 euro"** that it organises annually, acts as a transmitter of each and every one of the solidarity wishes of the children who participate, and transforms them into financial donations to different foundations and associations.

In the last edition, the Pasqual Maragall Foundation was one of the entities with which it collaborated to achieve a future without Alzheimer's.



Unforgettable shops and pharmacies

In 2022, a total of **241 businesses and 209 pharmacies** collaborated with the Pasqual Maragall Foundation so that in the future we can all remember.

Bakeries, hairdressers, pharmacies and bars have supported our work in research for the prevention and early detection of Alzheimer's, and have thus become unforgettable shops and pharmacies.



"The more of us there are, the more we can speed up research and go faster to find a treatment against Alzheimer's", Anna and Núria Domènech. Their pharmacy is already unforgettable.



"It is estimated that we remember 35% of what we smell. Compared to 5% of the things we see, we can see the power that aromas have to awaken memories", Irene Iborra. Her ice cream shop is an unforgettable trade.

4.02



Thanks to the more than 520 solidarity initiatives grouped under the "Unforgettable people and ideas for a future without Alzheimer's" project, we have been able to raise a total of €197,266 for the social and scientific project that we carry out at the Foundation and the Barcelonaβeta Brain Research Center, based on the early detection and prevention of Alzheimer's.

Solidarity initiatives

Below, we explain some of the most outstanding initiatives in 2022, which have allowed us to continue the research that brings us closer to a future without Alzheimer's.

Solidarity celebrations

During 2022, more than 250 solidarity celebrations were organised in favor of our social and scientific project. Through the unforgettable details for celebrations they managed to raise **€79,100**.

"We wanted our wedding to be unforgettable, and collaborating with the Pasqual Maragall Foundation is a step forward in this fight so that no one forgets their memories. A precious detail and hopefully a memory for life", María, unforgettable bride.



Initiatives to raise awareness and research

The Mestre Torres Association was born as a direct result of Alzheimer's disease affecting the Torres Fabra family. From the very beginning, they wanted to work with an organisation that devotes all its efforts to raising awareness in society about the origin of the disease, as well as researching its early detection. For this reason, they organised a charity football tournament that managed to raise **€3,500**.

"From the Association we encourage all people who have innovative ideas and who are of help to Alzheimer's research to collaborate with the Pasqual Maragall Foundation. We 100% with the FPM!", Josep Maria, director of the Association.



4.02

A gala to remember

María Díaz organised a gala to fight Alzheimer's.

"Last year my mother, the love of my life, was diagnosed with Alzheimer's. When I saw the work that the Pasqual Maragall Foundation was doing to prevent and detect the disease, I didn't think twice. I encourage everyone to organize a charity event. Helping makes you feel fulfilled and you realise that if we can lend a helping hand to others it is because we are lucky; it's very rewarding."

Online podcast in solidarity against Alzheimer's

Aló Copywriter, an online event about copywriting and sales for the digital marketing sector in Spain, organised its second edition during 2022 with the aim of supporting Alzheimer's research.

"I promoted Aló Copywriter because my mother suffers from the disease and I wanted to unite my profession with the cause. Two editions and more than €20,000 for the Foundation to continue with its research", Marina, organiser of the event.



4.03

Solidarity wills: “It will be a future without Alzheimer’s. It will be thanks to your legacy”



Carmen Martínez

She has already made her solidarity will:

“When you live close to the drama of Alzheimer’s it affects you to the point that you need to do something to combat the suffering of the caregivers, and of course also of the patients.”

This is the main reason why I have decided to leave a charitable legacy in favor of the Pasqual Maragall Foundation. I would like to think that in doing so I am also honoring the memory of my parents.

They were very generous, they had a lot of sensitivity to the suffering of others and I think they would like it.”

In 2022, **235 people** were interested in bequeathing to the next generations a future without Alzheimer’s, in which no family has to suffer the consequences of this disease.

Thanks to this form of collaboration, the Pasqual Maragall Foundation has received more than **€144,000** in 2022.

In order to be able to offer the best service to all those interested in making a charitable bequest, from the Pasqual Maragall Foundation we have the professional support of **Del Romero Advocats**.



“Making a will is a simple, economical and very convenient procedure to avoid problems for our heirs. A well-drafted will guarantees that the final will of the person signing it will be the rule that governs the succession and will greatly facilitate its execution. If there is no will, the distribution of assets can take longer and be much more expensive, and it will be the law that decides how and to whom our assets will be distributed”, remarks José María del Romero, managing partner of Del Romero Advocats.

How can you include Fundación Pasqual Maragall in the last will and testament?



You can donate a part of your estate to the Foundation through a legacy gift. It could be a specific amount of money, a percentage of the value of your estate, property, jewellery, work of art, stock, etc.



If you have no heirs, you can designate Fundación Pasqual Maragall as universal heir, bequeathing all of your estate, rights and/or stock to the Foundation.



If you wish to donate to more than one person and/or institution, you can designate Fundación Pasqual Maragall as coheir, indicating the percentage assigned to each party.



Joint liability carries tax benefits, since the part of the inheritance granted to the Foundation is not taxed with the inheritance tax.



For more information on how to make legacies, send your query or proposal to legados@fpmaragall.org

For more information on how to make donations, be a member or organise solidarity actions, call **900 545 545** or send your query or proposal to socios@fpmaragall.org



trust.

We build projects and long-term relationships based on trust.

We work with a policy of transparency, good practices and accountability.

05.

5.01

Who are we?



Transparency and good practices.

At the Pasqual Maragall Foundation and the Barcelonaβeta Brain Research Center we have a policy and a code of good practices in transparency and accountability, and we adhere to the Code of Good Scientific Practices of the Barcelona Biomedical Research Park (PRBB).

The Pasqual Maragall Foundation

The **Pasqual Maragall Foundation** is a private non-profit organisation that was born in April 2008, as a response to the commitment made by Pasqual Maragall (former mayor of Barcelona and former president of the Generalitat de Catalunya) by publicly announcing that he had been diagnosed with 'Alzheimer's.

The purpose of the Foundation is to **achieve a future without Alzheimer's** and, for this reason, its mission is to face the challenges posed by this neurodegenerative disease and others, through scientific solutions, promoting and structuring the support of society to achieve this.

Likewise, it has worked since the beginning to change the social consideration of the disease and **generate awareness about its effects through dissemination.**

The Barcelonaβeta Brain Research Center

The **Barcelonaβeta Brain Research Center (BBRC)** is the research center of the Pasqual Maragall Foundation. It was launched in 2012 linked to the Pompeu Fabra University, and with the participation of the "la Caixa" Foundation, and today it is an **international center of reference in the prevention of Alzheimer's.**

Its mission is to provide innovative solutions to **decipher and prevent the biological changes and cognitive dysfunction associated with neurodegenerative diseases.** Its research team develops neuroimaging projects and primary and secondary prevention of Alzheimer's, and actively participates in studies and international working groups focused on the prevention of the disease.

In the last five years, its researchers have published around **300 articles** in internationally prestigious journals.

5.02

Origin and destination of resources

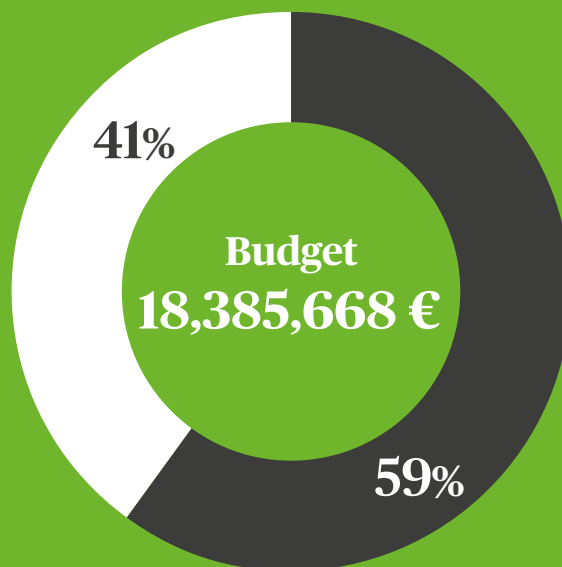


At the Pasqual Maragall Foundation we work to achieve a future without Alzheimer's through biomedical research.

To achieve this, we invest most of the resources obtained in research programs, communication and outreach actions to increase social support for our cause.

We also allocate part of the resources to attracting new funds to guarantee the long-term sustainability of ongoing scientific programs.

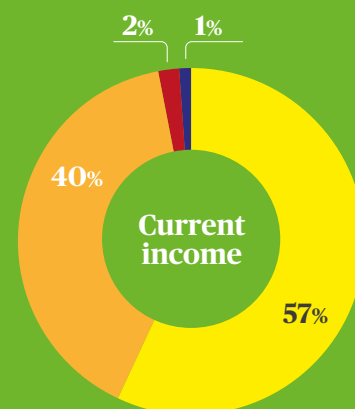
- Pasqual Maragall Foundation
10,771,589 €
- BBRC Research Center
7,614,079 €



5.02

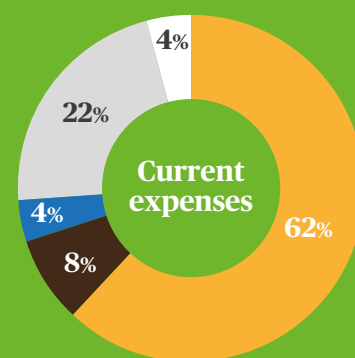


Total revenues	18,385,668 €
Current income	18,176,246 €
<ul style="list-style-type: none"> ● Patrons, partners and donors (57%) 10,286,154 € ● PResearch projects (40%) 7,350,681 € ● Income from services (2%) 397,591 € ● Public incidence and institutional relations, social area and dissemination (1%) 141,820 € 	
Income from capital grants <i>(Not included in the graphic)</i>	142,601 €
Financial income <i>(Not included in the graphic)</i>	66,821 €



Total expenses	17,583,786 €
Current expenses	17,533,946 €
<ul style="list-style-type: none"> ● Research programs (62%) 10,848,285 € ● Communication and awareness (8%) 1,453,163 € ● Public incidence and institutional relations, social area and dissemination (4%) 754,997 € ● Investment in the network of partners and donors (22%) 3,760,673 € ● Administration (4%) 716,828 € 	
Financial expenses <i>(Not included in the graphic)</i>	49,840 €

74%



During the year 2022, we have dedicated 74% of the budget directly to our mission and the remaining 22% we have invested in guaranteeing the future sustainability of this same mission: achieving a future without Alzheimer's and without any other neurodegenerative disease.

5.03

Collaborators



Our most sincere thanks to the network of partners and donors, and to the entities, companies and professionals who have supported our research through their contributions and collaborations.

Our recognition also goes to all the volunteers who give us their time and help us organize actions and events.

Patronage council

Strategic sponsor



Great patrons



Patrons



Associated companies



Institutional support



Collaborating entities

- > Belron Ronnie Lubner Charitable Foundation
- > Caprabo
- > Cialfir
- > Fundación Susana Monsma
- > Mapfre
- > Ricoh
- > Fundación Mutua General de Seguros
- > MGC Mutua

Colaboradores estratégicos

- > Fundación Adey
- > Edm
- > Carglass
- > Hamsa
- > Fundación Joan Ribas Araquistain
- > Santalucia Seguros



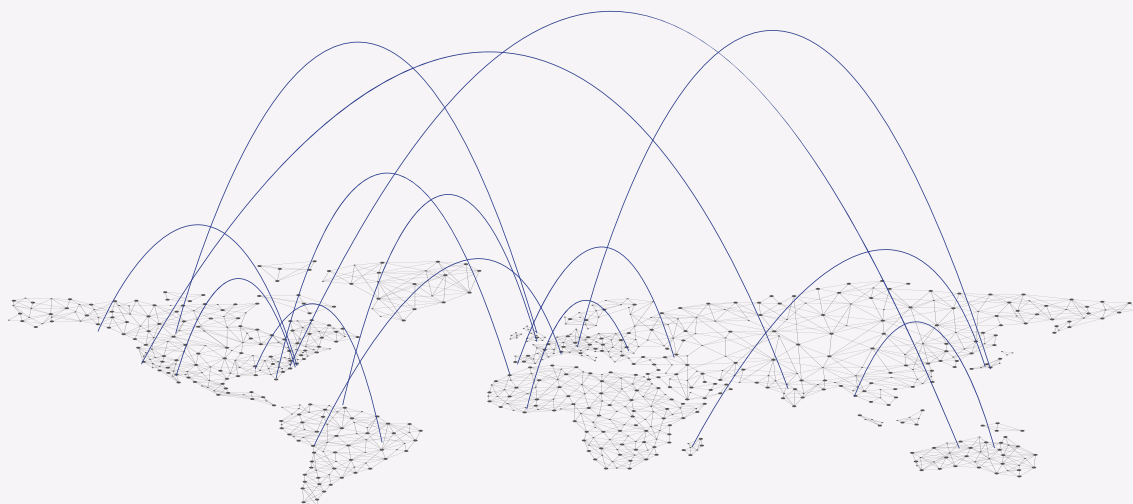
See the full list of contributors here:

<http://fpmaragall.org/memoria2022>

5.03

Scientific collaborations

- › Amsterdam University Medical Centers
- › Barcelona Supercomputing Center
- › Centre de Regulació Genòmica
- › Centre Nacional d'Investigacions Cardiovasculars
- › CIBER-BBN
- › CIBERFES
- › Consorci AMYPAD
- › Consorci EPAD
- › Consorci EU-FINGERS
- › Erasmus MC University Medical Center Rotterdam
- › Fraunhofer-Gesellschaft
- › F. Hoffmann-La Roche Ltd
- › GE Healthcare
- › Hospital Clínic de Barcelona
- › Hospital Universitari Vall d'Hebron
- › Institut d'Investigacions Biomèdiques August Pi i Sunyer
- › Institut Hospital del Mar d'Investigacions Mèdiques
- › Interuniversity Microelectronics Centre
- › ISGlobal
- › Karolinska Institute
- › KI-elements
- › Leiden University Medical Center
- › Philips
- › Roche Diagnostics
- › Universitat Autònoma de Barcelona
- › Universitat d'Edimburg
- › Universitat de Barcelona
- › Universitat de Cambridge
- › Universitat de Göteborg
- › Universitat de Lund
- › Universitat de Maastricht
- › Universitat de Wisconsin-Madison
- › Universitat Politècnica de Catalunya
- › Universitat Pompeu Fabra
- › University College London



5.04

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of trustees

pasqual
maragall
foundation



Configuration
from February
2022

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5.04

Board
of trustees

barcelonaβeta
BRAIN RESEARCH CENTER



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from February
2022**

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Arcadi Navarro Cuartiellas

Marcel Prunera i Colomer

20
22

**More
resources
for better
research**

We promote cutting-edge
research to defeat Alzheimer's.

20 22

**Annual
report**

**“Nowhere is it written
that Alzheimer’s is invincible”**

Pasqual Maragall
October 2007

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