

PART THE CLOUD

IMPACT REPORT 2023



translational research program in partnership with



A LETTER FROM OUR FOUNDER

Dear Friends:

After losing my father to Alzheimer's disease, a friend of mine said to me: "There are so many of us who have been touched by Alzheimer's. You need to do a fundraising event." So, I pulled together a committee of people who I knew were affected by Alzheimer's to plan a fundraiser for the Alzheimer's Association. Initially, I wasn't sure if the event would be successful, but it sold out immediately and we raised \$2 million out of the gate. This made me realize that there was a willingness to help fight this disease that none of us had imagined. That's when Part the Cloud was born.

Fast forward 12 years: That inaugural local Bay Area event has morphed into a global movement that has generated more than \$68 million dollars and funded 65 groundbreaking and innovative clinical trials across the globe in nine countries. Part the Cloud provides key funding for early-phase clinical trials and serves as a catalyst for researchers to obtain additional funding for their work. After initial funding from Part the Cloud, grant recipients have gone on to receive more than \$1.3 billion in follow-on funding from the federal government, venture capital firms and other sources.

In a continued effort to be at the forefront of science, Part the Cloud has launched a new fundraising initiative — the Gene Targeting Challenge — to supercharge the development of therapies tailored to the genetic underpinnings of Alzheimer's disease. This challenge, which will support new and ongoing early-stage clinical trials using gene targeting, is what Part the Cloud does best: investing in big, bold ideas that will move the needle in our quest to end Alzheimer's and all other dementia. In this impact report, you'll read more about the new Gene Targeting Challenge, as well as Part the Cloud's current global impact on the Alzheimer's drug pipeline broadly.

I founded Part the Cloud with a singular mission: to end Alzheimer's disease. While we've already accomplished so much, there's a long road ahead of us. But with the continued innovation of this program and support from our generous donors, I'm confident we will reach the finish line.

Thank you for your steadfast support. Together we will Part the Cloud!

Warmly,



Mikey Hoag



A LETTER FROM ALZHEIMER'S ASSOCIATION PRESIDENT & CEO

Dear Friends,

The year 2023 proved to be yet another historic year in the fight against Alzheimer's disease and all dementia. We had the first traditionally approved treatment that targets the underlying biology for people in early stages of Alzheimer's, as well as a commitment from the Centers for Medicare and Medicaid services (CMS) that traditionally approved treatments will receive coverage. With this progress, and the strides made through visionary initiatives such as Part the Cloud, we're no longer approaching the new era of treatment – we're in the new era of treatment.

But there's more work to do — critical work. More than 6 million Americans are living with Alzheimer's. By 2050, this number is projected to rise to nearly 13 million. It is the sixth-leading cause of death in the US. In the last 20 years, deaths from heart disease have decreased 7.3% while deaths from Alzheimer's have increased 145%.

With soaring prevalence and enormous costs, Alzheimer's is an escalating global health crisis, and now is the time. Treatments that target Alzheimer's from all angles and all stages of the disease are essential, and that's why strategic research funding that works to diversify the drug pipeline is so important.

The Alzheimer's Association is so proud of the role Part the Cloud has taken to expand the pipeline and support the global research community. By funding high-risk, high-reward research projects, Part the Cloud fills a hole in Alzheimer's research. We must leave no stone unturned when it comes to finding treatments for Alzheimer's and all other dementia, and Part the Cloud is designed to explore every feasible option in order to drive research forward to get potential treatment options to people living with Alzheimer's faster.

This work would not happen without the commitment of philanthropic leaders such as Mikey Hoag and the generous support of our donors. Through them – and all of you – we are able to support these early-phase clinical trials by accelerating the translation of findings from the laboratory, through trials, into possible therapies.

There is light at the end of the tunnel — and that's because of you. The Alzheimer's Association is grateful for your generosity and support.

Sincerely,



Joanne Pike, DrPH



PART THE CLOUD

\$68 MILLION
SINCE 2012

\$1.3 BILLION
FOLLOW-ON-FUNDING

65 GLOBAL
PROJECTS

TRANSLATIONAL RESEARCH GRANT RECIPIENTS

Part the Cloud awards grants to scientists focusing on a wide range of research areas.



Metabolic Function

how neurons process energy



Amyloid Plaques and Tau Tangles

hallmarks of Alzheimer's disease



The Immune Response, Misfolded Proteins and Growth Factors in the Brain

how the brain heals



Cell Signaling and Communication

how brain cells talk to one another



Vascular

blood vessels and blood flow to the brain



Oxidative Stress

imbalance between oxidants and antioxidants



Cell Senescence

how cells age, and how to address the effects of cellular aging



Genome Sequencing

gene mapping

GENOME SEQUENCING

Michael Weiner, M.D.

University of California at San Francisco -
San Francisco, CA

Part the Cloud supported, in part, the Whole Genome Sequencing Alzheimer's Disease Neuroimaging Initiative (WGS-ADNI), a project to sequence the whole genome of more than 800 individuals.

CELL SENESCENCE

James Kirkland, M.D., Ph.D.

Mayo Clinic - Rochester, MN

ALSENITE: An Open-Label Pilot Study of Senolytics for Alzheimer's Disease

Maurice Zauderer, Ph.D.

Vaccinex, Inc. - Rochester, NY

SEMA4D Blockade Safety and Brain Metabolic Activity in Alzheimer's Disease

IMMUNE RESPONSE, MISFOLDED PROTEINS AND GROWTH FACTORS

Steven Arnold, M.D.

Massachusetts General Hospital - Boston, MA

BCG Immunization Effects on Biomarkers of Inflammation/Immune Response and Alzheimer's Disease

Franz Hefti, Ph.D.

Proclara Biosciences - Cambridge, MA

Phase 1 Study with NPT088, A Fusion Protein to Treat Alzheimer's Disease

Hung-Kai (Kevin) Chen, M.D., Ph.D.

Elixiron Immunotherapeutics Inc. - Taipei, Taiwan

Modulating Neuroinflammation by Targeting Microglia with CSF1R Inhibitor EI1071

Two-time grant winner

John Sedivy, Ph.D.

Brown University - Providence, RI

Repurposing Nucleoside Reverse Transcriptase Inhibitors for Treatment of Alzheimer's Disease

Joseph Foss, M.D.

NeuroTherapia, Inc. - Cleveland, OH

A Phase I Single Ascending Dose Safety and Pharmacokinetic Study of NTRX-07

Mark Tuszynski, M.D.

University of California at San Diego - San Diego, CA

A Clinical Trial of BDNF Gene Therapy in Alzheimer's Disease

Linda Van Eldik, Ph.D.

University of Kentucky - Lexington, KY

Phase 1b MAD Study of a Novel Drug (MW189) Targeting Neuroinflammation

Manfred Windisch, Ph.D.

Neurokinine Therapeutics, LLC - Philadelphia, PA

Phase 1 Study of MW150: Novel Stress Kinase Inhibitor Candidate

METABOLIC FUNCTION

Michal Schnaider Beeri, Ph.D.

Sheba Medical Center - Ramat Gan, Israel, and
Icahn School of Medicine at Mount Sinai -
New York, NY

*Intranasal Insulin and Dulaglutide for Cognition in
Metabolic Syndrome MCI*

Suzanne Craft, Ph.D.

Wake Forest University Health Sciences -
Winston-Salem, NC

*A Phase IIA Trial of Empagliflozin and Intranasal
Insulin for MCI/AD*

Stephen Cunnane, Ph.D.

University of Sherbrooke - Quebec, Canada

*Proof of Mechanism of a New Ketogenic Supplement
Using Dual Tracer PET*

Two-time grant winner

Stephen Cunnane, Ph.D.

University of Sherbrooke - Quebec, Canada

RCT with a New Ketogenic Salt in MCI

Two-time grant winner

Paul Edison, M.B.B.S, F.R.C.P., Ph.D.

Imperial College London -
London, United Kingdom

*Evaluating Oral Semaglutide as a Treatment for
Alzheimer's Disease*

Two-time grant winner

Mitchel Kling, M.D.

University of Pennsylvania - Philadelphia, PA

A biomarker-based trial in MCI/AD

*Product as tested in this work did not go forward

Giulio Maria Pasinetti, M.D., Ph.D.

Icahn School of Medicine at Mount Sinai -
New York, NY

*BDPP Treatment for Mild Cognitive Impairment
and Prediabetes*

Stefano Sensi, M.D., Ph.D.

Universita degli Studi Gabriele d'Annunzio
di Chieti e Pescara - Chieti, Italy

Extenzin-Based Therapy for MCI Subjects

Russell Swerdlow, M.D.

University of Kansas Medical Center - Fairway, KS

*Trial of Oxaloacetate in Alzheimer's Disease
(TOAD) Study*

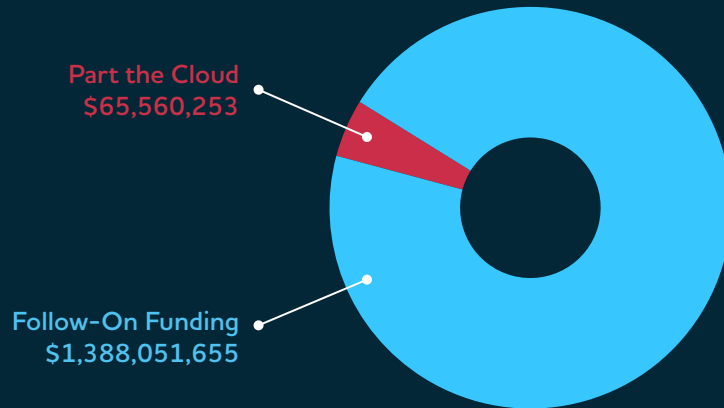
“Part the Cloud propels the global research community and allows it to explore innovative avenues of research that can accelerate needed treatments.”

Maria C. Carrillo, Ph.D.

Chief Science Officer and Medical Affairs Lead, Alzheimer's Association

FOLLOW-ON FUNDING

Part the Cloud advances research: From more than \$65 million in funding PTC has been awarded, grant recipients have gone on to receive more than \$1.3 billion in follow-on funding from the U.S. federal government, venture capital firms and other sources.



Follow-On Funding comes from a variety of sources including:

- Foundations (2.3%)
- Private (8.6%)
- Government (32.9%)
- Venture/Corporate (34.4%)
- Indirect (17.5%)

Indirect sources are government, foundation, corporate, venture capital, and individual support that is indirectly related to the Part the Cloud Translational award.

AMYLOID AND TAU

Adam L. Boxer, M.D., Ph.D.**

University of California at San Francisco -
San Francisco, CA

*Phase I Multiple Ascending Dose Trial of the MT
Stabilizer TPI-287 for AD*

Dale E. Bredesen, M.D.**

Buck Institute for Research on Aging - Novato, CA
*An Exploratory Safety, PK/PD, and Preliminary
Efficacy Study of F03 in MCI*

Ross Paterson, Ph.D.

Institute of Neurology, University College London
- London, United Kingdom

*Capturing Tau Kinetics in a Clinical Trial of ASO
NIO752 in Alzheimer's*

Tim West, Ph.D.**

C2N Diagnostics - St. Louis, MO

*A Single Ascending Dose Double Blinded Placebo
Controlled Study of C2N-8E12*

Dieter Willbold, Ph.D.

Research Center Juelich GmbH - Jülich, Germany
*Placebo Controlled Multi-Ascending Dose
[Targeting Protein Aggregation] Phase 1 Study in
Healthy Volunteers*

***Research studies not advanced*

CELL SIGNALING AND COMMUNICATION

Frank Longo, M.D.

Stanford University - Stanford, CA and

Anne Longo

Pharmatrophix, Inc. - Stanford, CA

Phase I Trial for P75 Receptor Ligand

Charbel Moussa, Ph.D.

Georgetown University - Washington, D.C.

Bosutinib Effects on Safety, Biomarkers and Clinical Outcomes in DLB

Paul A. Newhouse, M.D.

Vanderbilt University - Nashville, TN

Phase 1 Testing of a Muscarinic M1 PAM for Alzheimer's Disease

Two-time grant winner

Ahmad Salehi, M.D., Ph.D.

Palo Alto Institute for Research and Education, Inc.
- Palo Alto, CA

Improving β 2 Adrenergic Signaling in Alzheimer's Disease

Keith Vossel, M.D., M.Sc

University of California at San Francisco and
Gladstone Institute for Neurological Disease -
San Francisco, CA

Phase 2a Levetiracetam Trial for AD-Associated Network Hyperexcitability

Nawaf Yassi, M.D., Ph.D.

University of Melbourne - Parkville, Australia
S-Adenosyl Methionine for Alzheimer's Disease

VASCULAR AND OXIDATIVE STRESS

Jan Johansson, M.D., Ph.D.

Artery Therapeutics, Inc. - San Ramon, CA

Human proof of concept of ABCA1 agonist CS6253 treatment

Krista L. Lanctôt, Ph.D.

Sunnybrook Research Institute - Toronto, Canada

Linking GSH and Cognitive Response: A Pilot Phase 2a Study of NAC in VCIND

Two-time grant winner

Amala Soumyanath, Ph.D., and Joseph Quinn, M.D.

Oregon Health and Science University -
Portland, OR

Safety and Target Engagement of Centella Asiatica in Cognitive Impairment

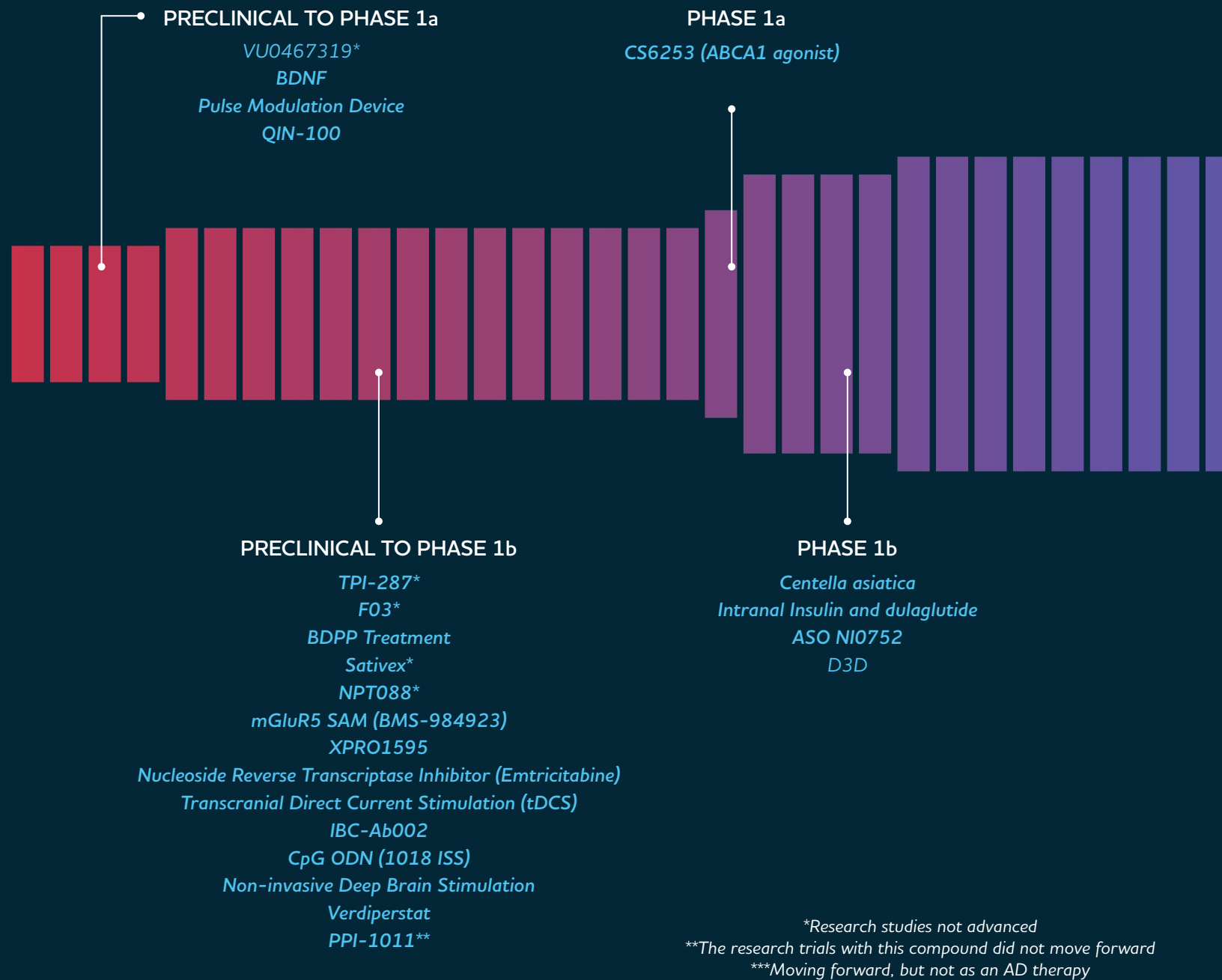
Whitney Wharton, Ph.D.

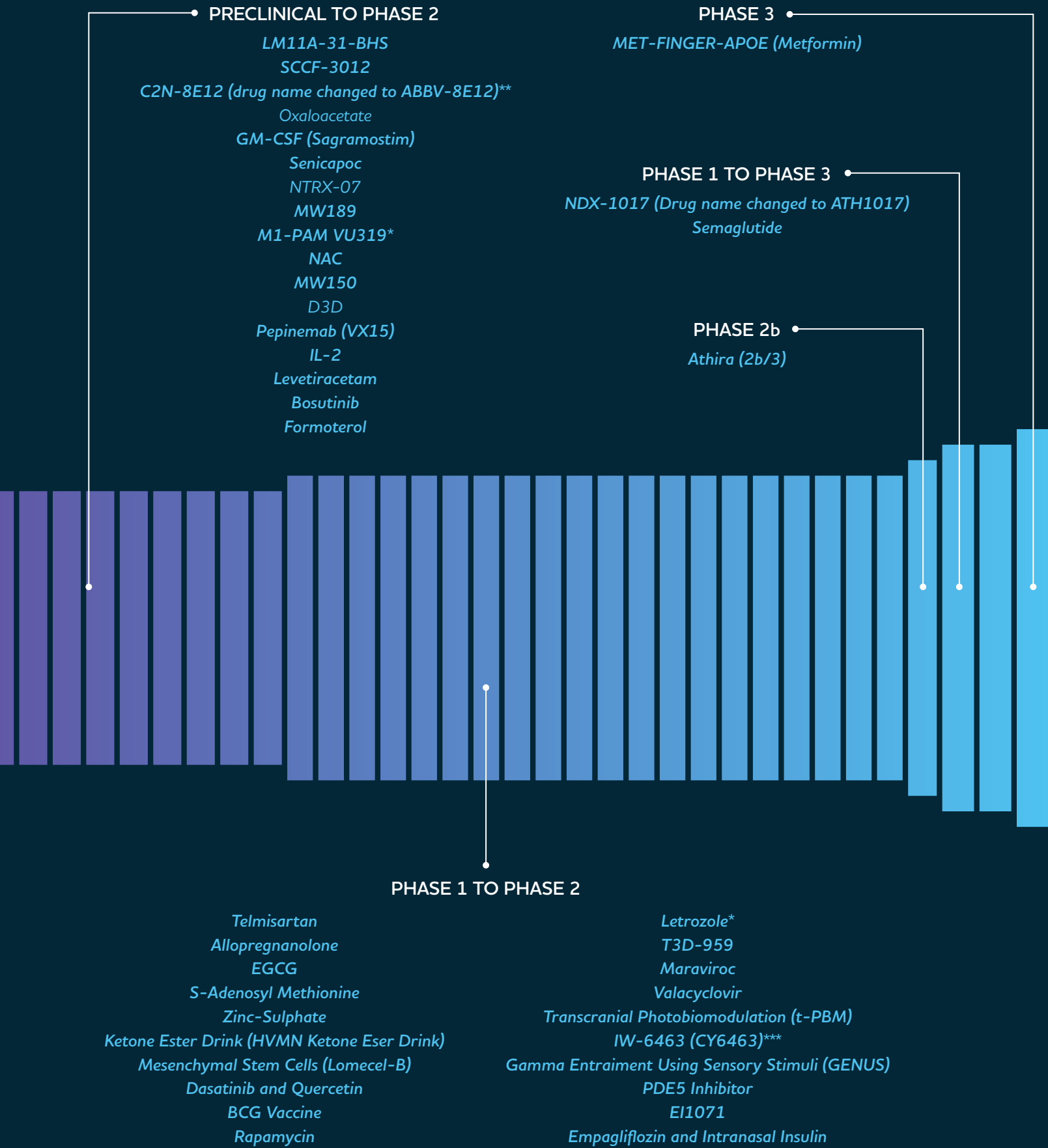
Emory University - Atlanta, GA

Mechanistic Potential of Antihypertensives in Preclinical Alzheimer's

DRUG PIPELINE

Getting potential treatments faster: propelling high-risk, high-reward research into clinical trials that are aimed at uncovering underlying brain cell changes, timely diagnosis and new treatments for Alzheimer's and all dementia.





CHALLENGES

Challenges focus on a specific topic and are awarded biennially.

RESCUE AND NEURODEGENERATION

The Part the Cloud to RESCUE (REverse, reStore, Cease and UndErstand) Brain Cell Degeneration in Alzheimer's disease challenge aims to accelerate the discovery and testing of innovative compounds to be used for interventions in the earliest stages of neurodegeneration-dementia-Alzheimer's disease. Presently, there are no effective interventions to delay or prevent the progression of the neurodegenerative processes that underlie the disabling symptoms of Alzheimer's dementia.

From 45 proposals, six researchers were awarded \$1 million each to develop their research over a two-year period.

Roberta Diaz Brinton, Ph.D.

University of Arizona - Tucson, AZ

Advancing Allopregnanolone as a Regenerative Therapeutic for Alzheimer's

Rafael de la Torre, PharmD, Ph.D.

Institute Mar of Medical Investigations -
Barcelona, Spain

Cognitive Decline in Early Stages of AD After EGCG and a Multimodal Therapy

Xue Hua, Ph.D.*

Athira Pharma, Inc. - Seattle, WA

Phase 2a Alzheimer's Trials of a Novel Neurotrophic Activator, NDX-1017

**No longer an employee of the company; the ongoing trials are overseen by the Athira Leadership Team*

Paul A. Newhouse, M.D.**

Vanderbilt University - Nashville, TN

M1-PAM VU319 Effects on Network Connectivity in MCI: A POC Study

Two-time grant winner

Stephen M. Strittmatter, M.D., Ph.D.

Yale University - New Haven, CT

Silent Allosteric Modulation of mGluR5 for Alzheimer's Disease

Raymond Tesi, M.D.

INmune Bio - La Jolla, CA

A Biomarker Directed Study to Reduce Inflammation in Alzheimer's Disease

NEUROINFLAMMATION

A first-of-its kind competition, the Part the Cloud Neuroinflammation Challenge was created to accelerate therapeutics and deepen understanding of neurodegeneration to be used in early clinical trials. Scientists around the world were invited to submit proposals that could translate into human trials of treatments targeting neuroinflammation with the goal of improving cognition in individuals with neurodegenerative diseases.

From 60 proposals submitted from 14 countries, four researchers were awarded \$1 million each to develop their proposals over a two-year period. After two years, projects were evaluated, and the most outstanding project was awarded an additional \$3 million to take it and the field to the next level.

Isidro Ferrer, M.D., Ph.D.**

Center for Networked Biomedical Research on Neurodegenerative Diseases - Barcelona, Spain
Sativex in MCI Patients at High Risk of Developing Alzheimer's Disease

John M. Olichney, M.D.

University of California at Davis - Davis, CA
Proof of Mechanism Study of Senicapoc in Mild or Prodromal Alzheimer's Disease

Anthony Andrew Oliva, Ph.D.

Longeveron, LLC - Miami, FL
Mesenchymal Stem Cell Therapy for Neuroinflammation in Alzheimer's Disease

Two-time grant winner

Anthony Andrew Oliva, Ph.D.

Longeveron, LLC - Miami, FL
Clinical Evaluation of Allogenic Mesenchymal Stem Cells for Mild Alzheimer's Disease

After two years, this study was shown to have made the most progress and received this additional award of \$3 million.

Huntington Potter, Ph.D.

University of Colorado at Denver - Denver, CO
Safety & Efficacy of GM-CSF/Leukine in Mild-to-Moderate Alzheimer's Disease

**Research studies not advanced



This program really knocks innovation out of the ballpark by exploring truly novel mechanisms.”

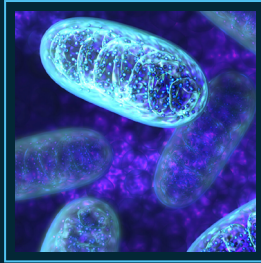
Paul B. Rosenberg, M.D.

Professor of Psychiatry and Behavioral Sciences at
Johns Hopkins University School of Medicine

PART THE CLOUD AND BILL GATES PARTNERSHIP

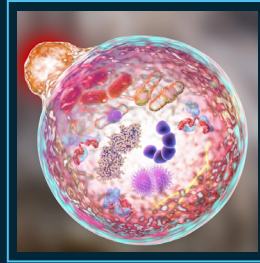
In 2019, Part the Cloud announced an exciting partnership with Bill Gates, aiming to double our investment in Alzheimer's research to \$60 million. The Alzheimer's Association, through Part the Cloud, raised over \$20 million and, once we reached that mark, Bill Gates provided a \$10 million match, allowing us to double our clinical research investment to over \$60 million in just one year.

This funding propels high-risk, high-reward research aimed at uncovering underlying brain cell changes, timely diagnosis and new treatments for Alzheimer's and all dementia. The research grants focus on the following three topic areas:



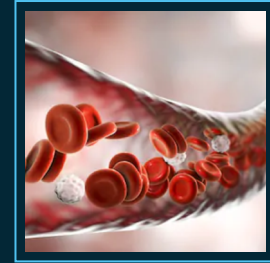
Mitochondria

how brain cells use energy and fuel (mitochondria, bioenergetics and metabolism)



Autophagy / Clearance

how brain cells remove waste and debris to avoid protein clumping



Vascular Contributions

how blood supply in the brain is maintained

From 128 ideas submitted from 18 countries, over \$30 million was awarded to 19 researchers to further develop their research over 3 years.

Einor Ben Assayag, Ph.D. and Hen Hallevi, M.D.

Tel Aviv Sourasky Medical Center - Tel-Aviv, Israel

Safety and Efficacy of Maraviroc in Vascular Cognitive Impairment

Anat Biegon, Ph.D.

The Research Foundation of SUNY- SUNY at Stony Brook - Stony Brook, NY

Aromatase Inhibition in Alzheimer's Disease: Phase 2 Study

David Celermajer, M.D., Ph.D.

The Brain Protection Company - Paddington, Australia

Phase 1 Study of a Novel Device Reducing Vascular Contributions to Dementia

Hung-Kai (Kevin) Chen, M.D., Ph.D.

Elixiron Immunotherapeutics Inc. - Taipei, Taiwan

CSF1R Inhibitor EI071 for Modulating Microglia-Associated Neuroinflammation

Two-time grant winner

Davangere P. Devanand, M.D.

Research Foundation for Mental Hygiene, Inc. at New York State Psychiatric Institute - New York, NY

Anti-Viral Treatment in Mild Cognitive Impairment

John Didsbury, Ph.D.

T3D Therapeutics, Inc. - Research Triangle Park, NC

The PIONEER Study: A Phase 2 Trial of T3D-959 in Alzheimer's Subjects

Paul Edison, M.B.B.S, F.R.C.P., Ph.D.

Imperial College London -
London, United Kingdom

*Mitochondrial Function and BBB Leakage as a Novel
Treatment for Alzheimer's*

Two-time grant winner

Alireza Faridar, M.D.

The Methodist Hospital Research Institute -
Houston, TX

*Regulatory T cells as a novel therapeutic target in
Alzheimer's Disease*

Nir Grossman, Ph.D.

Imperial College London -
London, United Kingdom

*Non-Invasive Deep Brain Stimulation for
Alzheimer's Disease*

Dan Iosifescu, M.D.

New York University School of Medicine
- New York, NY

*Photobiomodulation for Early Stage Alzheimer
Disease (PhESAD)*

Miia Kivipelto, M.D., Ph.D.

Imperial College London - London,
United Kingdom

*MET- FINGER- APOE: Multimodal Lifestyle
Intervention + Metformin to Prevent
Cognitive Decline*

Krista L. Lanctôt, Ph.D.

Sunnybrook Research Institute - Toronto, Canada

*Exercise as a Primer for Excitatory Stimulation in
VCIND (EXPRESS-V)*

Two-time grant winner

Lyndon Lien, Ph.D., M.B.A.

Qinotto, Inc. - Hillsborough, CA

*Small molecule lysosome activator for the treatment
of neurodegeneration*

Peter Ljubenkov, M.D.

University of California, San Francisco -
San Francisco, CA

*Veri-T: A phase I Placebo-Controlled Trial of
Verdiperstat in FTLD-TDP*

Sudha Seshadri, M.D.

University of Texas Health Science Center at
San Antonio - San Antonio, TX

Phase 2 Trial of Rapamycin for Alzheimer's Disease

Li-Huei Tsai, Ph.D.

Massachusetts Institute of Technology -
Cambridge, MA

*Prevention of Alzheimer's Disease Using
Gamma Entrainment*

Chad Glasser, PharmD

Cyclerion Therapeutics, Inc. - Cambridge, MA

*Phase 2 Study of CNS sGC Stimulation in AD with
Vascular Features*

Thomas Wisniewski, M.D.

New York University School of Medicine -
New York, NY

*Phase 1 Clinical Trial of Innate Immunity Stimulation
via TLR9 in Early AD*

Eti Yoles, Ph.D. and Michal Schwartz, Ph.D.

ImmunoBrain Checkpoint, Inc. - New York, NY

*IBC-Ab002 - Immune Checkpoint Blockade to
Combat Alzheimer's Disease*

INTRODUCING THE 2024 PART THE CLOUD GENE TARGETING CHALLENGE

Part the Cloud's latest funding initiative focuses on personalized medical approaches that address individual genetic circumstances associated with the risk and development of Alzheimer's.

A number of factors and processes likely contribute to the development of brain diseases such as Alzheimer's disease, and these may not be the same for every individual.

Scientists have identified more than 100 risk genes associated with the development of Alzheimer's.

These risk genes may influence biological changes in the brain that differ from person to person, presenting opportunities for personalized gene editing and therapy.



This Part the Cloud Challenge will supercharge the development of therapies tailored to the genetic underpinnings of Alzheimer's, accelerating effective treatment for all.



The grant program will enable faster and more focused advancement of these potential therapies into the next stage of development.



Grants will support new and ongoing early-stage clinical trials using gene targeting. Examples of similar Part the Cloud-funded trials of gene therapies include:

- Ross Paterson, MRCP, Ph.D., University College London, who is conducting a phase 1b trial to test whether targeting specific genes can lead to the reduction of tau tangles.
- Mark Tuszynski, M.D., Ph.D., University of California, San Diego, whose phase 1 gene therapy trial aims to improve the survival and function of brain cells in Alzheimer's disease.

THE STAGE IS SET FOR UNPRECEDENTED
ACCELERATION OF TARGETED GENETIC
RESEARCH FOR ALZHEIMER'S.

WE SEEK VISIONARY PHILANTHROPIC PARTNERS

to join with us by making a high-impact gift for this challenge. Together, we will make transformative progress toward our vision of a world without Alzheimer's and all other dementia.

Learn more and make a donation at

[ALZ.ORG/PARTTHECLOUD](https://alz.org/partthecloud)

FUELING BOLD RESEARCH ACROSS THE GLOBE.

A global research leader, the Alzheimer's Association is at the forefront of groundbreaking research advancing medical precision in the new era of treatments for Alzheimer's.

Please consider making a donation to support Part the Cloud and our mission to find a treatment or cure for Alzheimer's disease in our lifetime.

Learn more and make a donation at
[ALZ.ORG/PARTTHECLOUD](https://www.alz.org/partthecloud)



ALZHEIMER'S  ASSOCIATION®