Buck

Impact Report

2025

It is an extraordinary time for research on aging.

Breakthrough discoveries, combined with incredible advances in AI and machine learning, have brought us to the cusp of unprecedented advances in the field. We know that aging is malleable, and now clinical studies are bringing us closer and closer to interventions that can impede, or even reverse, biological aging.

The Buck was the world's first independent institute to focus solely on the biology of aging. As it turns out, we were just ahead of our time! We are delighted to keep leading the way forward, and **we want to extend our heartfelt appreciation to you, the donors and supporters who make our work possible**.

In this report, we showcase some of the things we have achieved together in the last year. Our collaboration with you shows that, truly, you don't need to be a scientist to make a difference in Buck science. Together, let there be no doubt, we will succeed in helping people live better longer.

Eric Verdin, MD
President and CEO

Our mission is to end the threat of age-related disease for this and future generations

We believe it is possible for people to enjoy their lives at 95 as much as they do at 25, and to achieve that, we're seeking a more comprehensive understanding of the biology of aging itself.

Out of more than 600 teams worldwide, a Buck team was selected as one of just 40 semifinalists for the $101 million **XPRIZE Healthspan** competition—an ambitious global effort to add at least 10 years of healthy, vital life.

ARPA-H

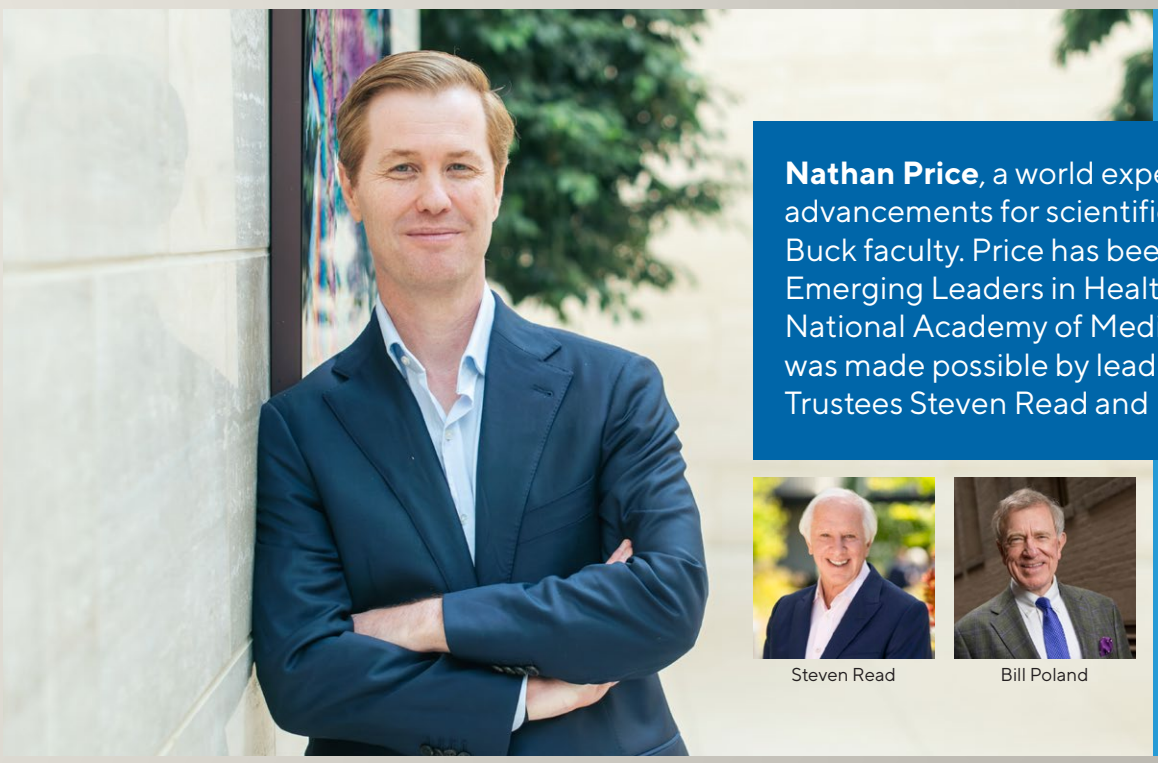
PROSPR

Proactive Solutions for Prolonging Resilience

Buck - in collaboration with our partner **Phenome Health** - receives an up to $52 million award from the Advanced Research Projects Agency for Health (ARPA-H). Study participants will be the most characterized humans ever!

Bringing science from the bench to the bedside, the Buck's **Clinical Research Unit** is now running eight human clinical trials—pioneering studies designed to uncover how we can live better, longer.

In our constant quest to tackle the scourge of age-related cognitive decline, the Buck publishes four breakthrough papers on **Alzheimer's disease**.



Nathan Price, a world expert in AI-driven advancements for scientific wellness, joins the Buck faculty. Price has been named one of the 10 Emerging Leaders in Health and Medicine by the National Academy of Medicine. His recruitment was made possible by leadership gifts from Buck Trustees Steven Read and Bill Poland.

Steven Read

Bill Poland

Clinical Research at the Buck

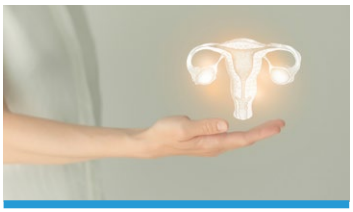
The Buck Institute is the first place in the world to combine basic scientific research on aging with a full-fledged clinical arm.

More than a decade ago, Bill and Mary Poland had the foresight to fund the Bill and Mary Poland Clinical Research Unit (CRU). A gift from retired surgeon Jim Johnson enabled the launch of our first clinical study. The lastest addition to the CRU is a lounge for study participants, made possible by a gift from Andy and Sarah Barnes.

The Clinical Research Unit is co-led by John Newman, MD, PhD and Brianna Stubbs PhD, and supported by experienced clinical research scientists and registered nurses. It is a dedicated space that includes exam rooms, biospecimen processing, and specialized tools to measure physical and cognitive function. There are currently 8 clinical studies underway.

Beta-cell Evaluation Via data-driven Assessments (BETA)
Constructing a non-invasive predictor of pancreatic beta-cell function Type II Diabetics and Pre-diabetics

Buck Institute Geroscience (BIG) Biobank
Collecting blood to accelerate aging research



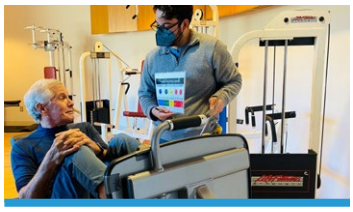
Glycation Reduction and Aging, a Clinical Evaluation (GRACE)
Sugar-stress-lowering supplement for postmenopausal women

Molecular Optimization via Exercise (MOVE) Study
Exploring the effects of exercise on aging

Targeting Aging with a Ketone Ester for Function in Frailty (TAKEOFF)
Determining if putting at-risk older adults into ketosis can stave off frailty

Temporal Investigation of Multimodal Elements (TIME)
Observing molecular and digital health markers across daily and weekly timescales

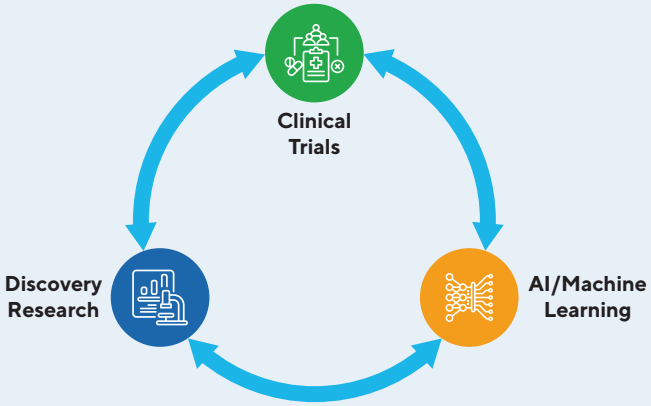
Strategies to Augment Ketosis (STAK)
Variations in Ketone Metabolism (VKM) [STAK-VKM]



Ketone Ester (BIKE) Study - CLOSED
The safety and tolerance of ketone drinks in older adults

John Newman, MD, PhD, is an Assistant Professor at the Buck and an Associate Professor in the Division of Geriatrics at University of California San Francisco (UCSF). His work centers on translating our expanding understanding of aging biology to improve the care and help maintain the independence of older adults. Dr. Newman is also a geriatrician at UCSF who cares for hospitalized older adults, focusing on preserving mobility and preventing delirium.

Brianna Stubbs, PhD, is Research Assistant Professor and Director of Translational Science at the Buck. She is a world expert in exogenous ketone metabolism and its implications for performance, resilience and healthspan. While completing her PhD at Oxford, she competed on the British International Rowing Team and is a two-time World Champion lightweight athlete. Dr. Stubbs is focused on the translation of research into drugs that promote healthy aging.



A New Model

Our goal is a virtuous, powerful circle that can't be duplicated anywhere else: to have our scientific findings tested in clinical studies, and then have the data from those studies analyzed and fed back into the lab to fuel new discoveries.

Can Therapeutic Plasma Exchange Turn Back the Clock?

What if a medical procedure could actually make you biologically younger? A pioneering clinical trial published in *Aging Cell* suggests it might be possible.

Researchers from the Buck, along with colleagues at Circulate Health, found that therapeutic plasma exchange (TPE)—a process that filters and replaces the liquid part of your blood—reversed biological age by an average of 2.6 years. The effect was even stronger when TPE was combined with intravenous immunoglobulin (IVIG), a therapy that supports immune health.

"This is a huge step forward in evidence-based longevity science," says Buck Professor David Furman. "We're not just guessing—this study shows real, measurable changes in aging biology."

The trial used cutting-edge "multi-omics" tools to track thousands of molecular markers linked to aging, from inflammation and metabolism to immune function and gene expression. Participants receiving biweekly TPE with IVIG showed the greatest improvements—not just in molecular markers, but also in physical performance like balance and strength.

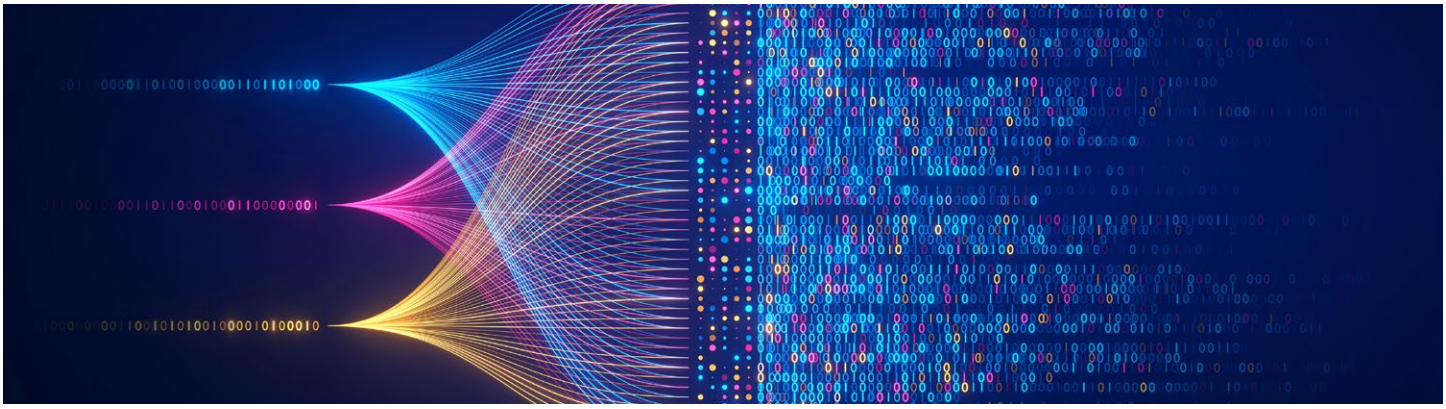
Even better? People starting with signs of poor health saw the biggest gains. But healthy participants also benefited, showing that this could be a powerful tool for prevention as well as intervention.

> *"We're not just guessing—this study shows real, measurable changes in aging biology."*

The effects were strongest after the first few treatments, suggesting future protocols could be optimized by spacing treatments or combining them with other strategies.

"This is the first study of its kind," says Buck CEO Eric Verdin. "It lays the foundation for personalized anti-aging therapies that actually work. We're just getting started—and the potential is huge."

Fuentealba, Matias et al. "Multi-Omics Analysis Reveals Biomarkers That Contribute to Biological Age Rejuvenation in Response to Single-Blinded Randomized Placebo-Controlled Therapeutic Plasma Exchange." *Aging cell* vol. 24,8 (2025): e70103. doi:10.1111/acel.70103



Machine Learning Links Key Metabolites to Aging in Flies and Humans

In a groundbreaking study from the Buck Institute, scientists used machine learning to analyze massive datasets from both fruit flies and humans to uncover metabolites—small molecules involved in metabolism—that influence lifespan in both species.

The study, published in *Nature Communications*, highlights threonine, an essential amino acid, as a promising candidate for future aging therapies.

Threonine is known for roles in collagen production, fat metabolism, immune function, and even diabetes protection in mice. In this study, it was linked to longer, healthier lives in both flies and humans—though only in certain genetic backgrounds and sexes. "We're not claiming threonine is a cure-all," says senior author Dr. Pankaj Kapahi. "But it shows potential as a precision intervention for aging."

The research team started by analyzing 120 metabolites across 160 strains of fruit flies on different diets. Using advanced computational tools, they identified key compounds linked to improved lifespan. They then cross-referenced their results with data from the UK Biobank, one of the largest human health databases in the world, to see if the same metabolites played a role in human aging. They brought the most promising findings—like threonine—back into fly models for validation.

> *"It shows potential as a precision intervention for aging."*

Not all findings were positive. Orotate, another metabolite, was associated with shorter lifespans in both species.

This novel method could accelerate aging research by skipping costly mouse trials and going straight from flies to human relevance. "We hope others adopt this approach," says Kapahi. "It brings us closer to identifying meaningful, personalized ways to extend healthspan."

Hilsabeck, Tyler A U et al. "Systems biology approaches identify metabolic signatures of dietary lifespan and healthspan across species." *Nature communications* vol. 15,1 9330. 29 Oct. 2024, doi:10.1038/s41467-024-52909-y

A New Blood-Based Epigenetic Clock Focuses on How Well a Person Functions as They Age

Led by David Furman, PhD, scientists at the Buck have developed a new blood-based tool to measure how well we're aging—not just how old we are.

Called the IC Clock, this breakthrough test estimates "intrinsic capacity," or how well a person functions as they age. It combines six key areas of health: mobility, memory, mental health, vision, hearing, and nutrition.

The IC Clock, published in *Nature Aging*, was created in collaboration with colleagues at IHU HealthAge in France. Unlike traditional aging clocks that mostly track chronological age or disease risk, this one focuses on what really matters to people: staying sharp, strong, and independent as they grow older.

The World Health Organization already recognizes a decline in intrinsic capacity as part of aging. This new clock uses tiny molecular markers called DNA methylation, found in blood or saliva, to provide a non-invasive snapshot of functional health. In testing, the IC Clock outperformed older aging clocks in predicting who was at higher risk of death, and was linked to stronger immune systems, lower inflammation, and healthier lifestyles.

> *This new clock uses tiny molecular markers called DNA methylation, found in blood or saliva, to provide a non-invasive snapshot of functional health.*

Researchers are now developing a version that works with dried blood spots—potentially allowing for low-cost testing in clinics around the world. It could become a powerful tool for doctors, scientists, and policymakers to spot early signs of decline and guide treatments that support healthy aging.

Fuentealba, Matías et al. "A blood-based epigenetic clock for intrinsic capacity predicts mortality and is associated with clinical, immunological and lifestyle factors." *Nature aging* vol. 5,7 (2025): 1207-1216. doi:10.1038/s43587-025-00883-5

How Space Research Is Unlocking Secrets of Immune Aging on Earth

What happens to the immune system in space—and why does it matter here on Earth?

Buck Institute scientists David Furman, PhD and Daniel Winer, PhD led a groundbreaking study showing how reduced gravity, like that experienced by astronauts, disrupts immune function in ways that closely resemble immune aging in older adults.

Published in *Nature Communications*, the study maps how microgravity alters immune cells, offering unprecedented insight into why immunity falters with age. "This is the first comprehensive study to provide the scientific community with an atlas to understand human biology in this extreme condition," says Furman. Winer adds, "Changes in mechanical forces appear to orchestrate immune cell function—something that's increasingly relevant in the context of aging."

Using simulated microgravity and data from space missions, the team studied lymphocytes and monocytes—key players in fighting infections—and found that they behaved similarly to aged immune cells on Earth. That parallel offers researchers a powerful new model for studying aging without waiting decades for effects to appear.

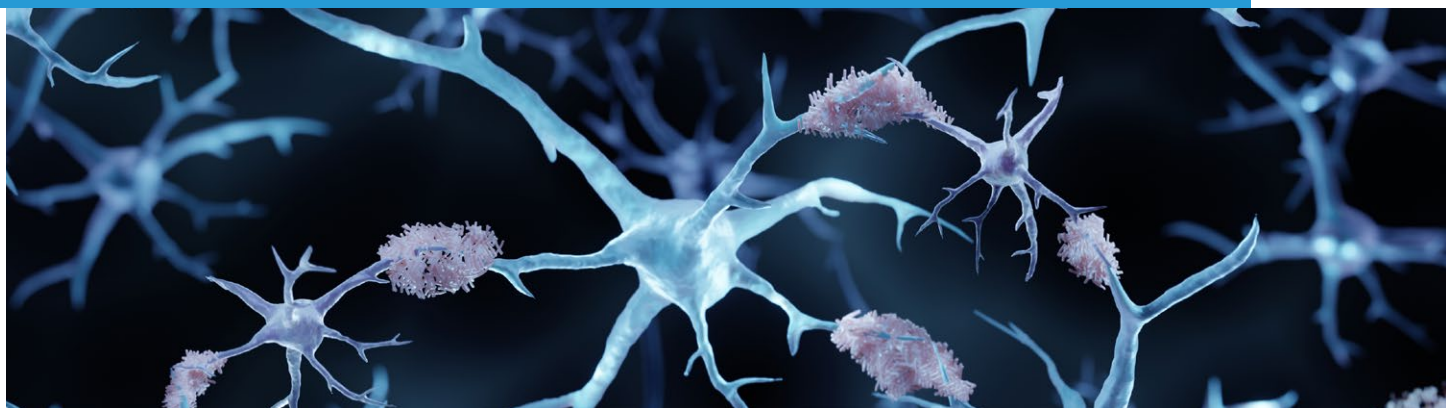
> *"Changes in mechanical forces appear to orchestrate immune cell function."*

To counteract the damage, the team used AI to screen for compounds that might restore immune function. One promising candidate: quercetin, a plant compound found in apples, onions, and berries. It reversed about 70% of the changes caused by microgravity—and may help restore immune resilience in older adults as well.

While the research is critical for protecting astronauts, its broader goal is clear: to help develop interventions that prevent immune decline as we age.

"Our work shows how immune cells change in space—and in aging," says Furman. "The insights we gain could pave the way for healthier aging back on Earth."

Wu, F., Du, H., Overbey, E. et al. Single-cell analysis identifies conserved features of immune dysfunction in simulated microgravity and spaceflight. *Nat Commun* 15, 4795 (2024). https://doi.org/10.1038/s41467-023-42013-y



Reprogrammed Immune Cells Offer New Hope for Alzheimer's Treatment

In a breakthrough inspired by cancer therapies, scientists at the Buck have developed a potentially new approach to treating Alzheimer's using engineered immune cells that can precisely target the toxic proteins that damage the brain.

Published in the *Journal of Translational Medicine*, the study shows that specially modified immune cells—outfitted with tools called chimeric antigen receptors (CARs)—can detect and respond to two hallmarks of Alzheimer's disease: tau tangles and amyloid plaques. These damaging protein clumps build up in the brains of people with Alzheimer's and are thought to be one of the drivers of the disease.

"Our goal is to deliver treatments with the precision of a scalpel, not the force of a sledgehammer," says Buck professor Julie Andersen, PhD. Current Alzheimer's drugs, which are essentially ineffective, can cause serious side effects, including brain bleeds and seizures. This new method could reduce those risks by sending immune cells directly to the problem areas.

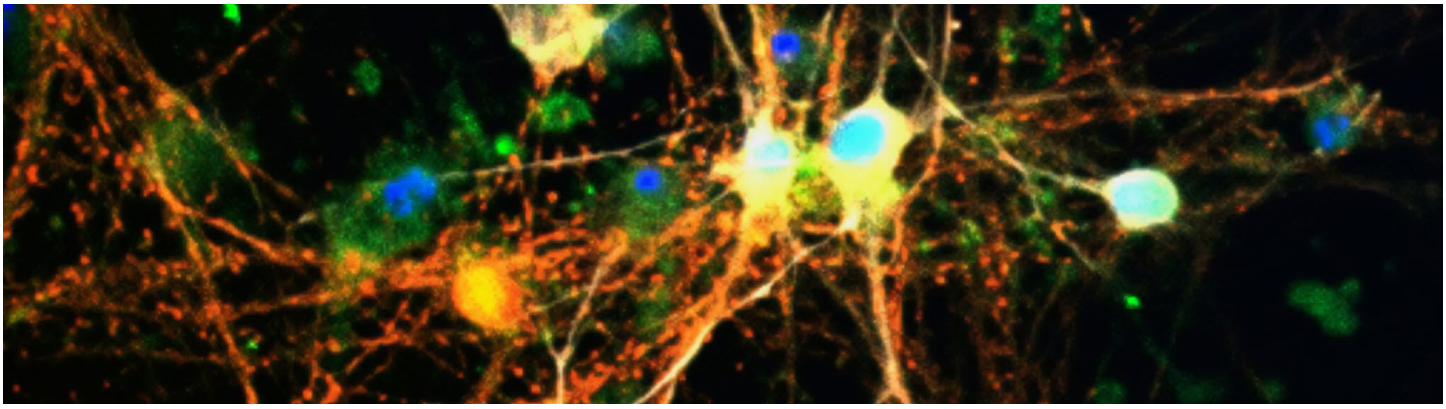
Lead scientist Chaska Walton, PhD, envisions these immune cells acting like tiny drug factories that travel to diseased areas, release their medicine, and then move on. "It's like sending an autonomous taxi to exactly the right address," he says.

> *"It's like sending an autonomous taxi to exactly the right address."*

The cells were designed using parts of well-known Alzheimer's antibodies, and early tests in mice showed strong success: four out of five engineered receptors worked as intended. Importantly, this technology is designed to heal—not kill cells, as in cancer CAR-T therapy. "We want to save neurons," Walton says.

The Buck team is sharing their complete methods to help accelerate progress across the field. "This is a gift to the research community," says Andersen.

Siebrand, Cynthia J et al. "Chimeric antigen receptors discriminate between tau and distinct amyloid-beta species." *Journal of translational medicine* vol. 23,1 605. 30 May. 2025, doi:10.1186/s12967-025-06572-6



Neurons burn sugar differently. Could this discovery fight dementia?

A new study from the Kapahi lab reveals that how our brain uses sugar may be key to battling Alzheimer's disease and other forms of dementia.

Published in *Nature Metabolism*, the research shows that breaking down glycogen—a stored form of glucose—in brain cells helps protect against toxic protein buildup.

While glycogen is usually linked to muscles and the liver, the study found that it also accumulates in neurons in people with Alzheimer's. More importantly, this buildup appears to physically bind with tau—a protein known to form harmful tangles in the brain. This connection may make tau clump together faster and block the brain's ability to manage stress.

The researchers, led by postdoctoral scientist Sudipta Bar, PhD, and senior author Pankaj Kapahi, PhD, discovered that boosting the activity of an enzyme called glycogen phosphorylase (GlyP) helped clear glycogen and reduce damage from tau buildup in both fruit flies and human neurons. Instead of using glycogen for energy, these brain cells rerouted sugar into a protective pathway that fights oxidative stress—a key driver of aging and brain degeneration.

> *Instead of using glycogen for energy, these brain cells rerouted sugar into a protective pathway that fights oxidative stress.*

Interestingly, dietary restriction naturally increased GlyP activity and had similar benefits. A drug that mimics this effect also worked—potentially explaining why popular weight-loss drugs like GLP-1s might help protect against dementia.

This discovery opens up a new direction for Alzheimer's research: using the brain's sugar management system to fight neurodegeneration. As Kapahi puts it, "By better understanding how neurons handle sugar, we may be unlocking a powerful way to protect our brains as we age."

Bar, S., Wilson, K.A., Hilsabeck, T.A.U. et al. Neuronal glycogen breakdown mitigates tauopathy via pentose-phosphate-pathway-mediated oxidative stress reduction. *Nat Metab* 7, 1375–1391 (2025). https://doi.org/10.1038/s42255-025-01314-w

Ketone Esters Help Clear Damaged Proteins Linked to Alzheimer's in Mice

A new study from the Buck Institute for Research on Aging offers fresh insight into how ketone bodies—natural compounds produced when we fast or exercise—may help protect the aging brain.

Researchers found that these molecules, especially one called β-hydroxybutyrate, can directly interact with misfolded or damaged proteins in the brain, helping to clear them out before they can form harmful clumps associated with Alzheimer's and other neurodegenerative diseases.

Published in *Cell Chemical Biology*, the study uses mouse models of aging and Alzheimer's, as well as the microscopic worm *C. elegans*. Feeding ketone esters to mice not only reproduced test tube findings, but also led to clearance—not buildup—of harmful proteins in the brain. In worms genetically engineered to develop toxic human amyloid beta, ketone treatment even reversed paralysis.

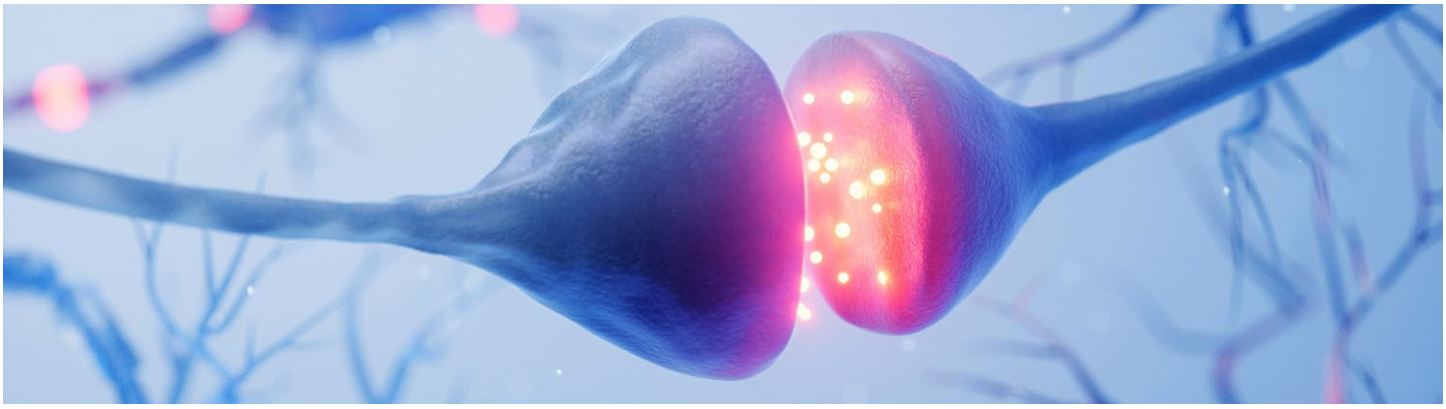
"We used to think ketone bodies mainly worked by giving the brain more energy or reducing inflammation," says senior author John Newman, MD, PhD. "Now we know they actually change how proteins behave, making them easier to recycle."

> *The findings could one day support therapies aimed at enhancing the brain's natural cleanup systems.*

The discovery opens new doors for treating brain aging and dementia. Because ketone bodies and similar molecules are relatively easy to boost through diet or supplements, the findings could one day support therapies aimed at enhancing the brain's natural cleanup systems.

"This is just the beginning," says Newman. "We're discovering that metabolism itself—how our cells process fuel—can be a powerful way to control protein quality and brain health as we age."

Madhavan, Sidharth S et al. "βhydroxybutyrate is a metabolic regulator of proteostasis in the aged and Alzheimer disease brain." *Cell chemical biology* vol. 32,1 (2025): 174-191.e8. doi:10.1016/j.chembiol.2024.11.001



How a Keto Diet Boosts Brain Health and Memory in Aging Mice

The ketogenic diet—a high-fat, low-carb eating plan—has been shown to improve memory in older mice. Now, researchers at the Buck Institute and the University of Chile have uncovered how it works at the molecular level, opening the door to future treatments that might not require following the diet at all.

"This is the first time we've connected how ketone bodies improve memory all the way down to the molecular level," says Dr. John Newman, a Buck Institute professor and geriatrician at UCSF. "It raises the exciting possibility that we could get these benefits without needing to follow the full ketogenic diet."

Published in *Cell Reports Medicine*, the study shows that the keto diet activates a specific signaling pathway in the brain—called protein kinase A—that helps synapses (the connections between brain cells) function better. These changes happened quickly and became more pronounced with time.

The key player appears to be β-hydroxybutyrate (BHB), a molecule produced by the liver during a ketogenic state. BHB acts not only as fuel, but also as a signaling molecule that boosts memory-related brain functions.

> *BHB acts as a signaling molecule that boosts memory-related brain functions.*

In the study, mice over two years old were placed on a keto diet for one week at a time, alternating with a normal diet to avoid weight gain. Tests showed improvements in memory, and protein analysis of the hippocampus—a key brain region for memory—revealed dramatic changes at the synapse level.

Looking ahead, researchers hope to replicate these benefits with BHB alone or by targeting the same signaling pathway—potentially offering brain-boosting interventions without dieting.

Acuña-Catalán, Diego et al. "Ketogenic diet administration later in life improves memory by modifying the synaptic cortical proteome via the PKA signaling pathway in aging mice." *Cell reports. Medicine* vol. 5,6 (2024): 101593. doi:10.1016/j.xcrm.2024.101593

Buck Institute Awarded DARPA Contract to Pioneer Next-Gen AI Modeling Platform

The Buck has received a major contract from the Defense Advanced Research Projects Agency (DARPA) to lead a cutting-edge initiative called SIMBA (Simulation and Inference of Microbial Behavior and Adaptation). In partnership with DARPA, the Buck will develop a powerful, cloud-based platform that uses AI and massive biological datasets to simulate how bacteria behave and adapt.

"This project has the potential to transform how we understand and predict what microbes do," says James Yurkovich, PhD, the Buck scientist leading the initiative. The potential applications are wide-ranging with exciting implications for longevity research. By better understanding how microbes influence inflammation, immunity, and metabolism—all key drivers of aging—scientists may uncover new ways to promote healthy aging and extend healthspan.

"The SIMBA project highlights the Buck's leadership in pioneering science with real-world impact," says Buck President and CEO Dr. Eric Verdin. "It's a major step toward unlocking the power of microbial systems to improve human health across the lifespan."

Buck Institute Team is Named Semifinalist of XPRIZE Healthspan

XPRIZE HEALTHSPAN

The Buck is thrilled that a team of Buck scientists, in collaboration with colleagues at the at the University of Toulouse, was named one of 40 semifinalists (out of more than 600 applicants) in the global XPRIZE Healthspan competition. The seven-year, $101 million challenge is designed to transform how we approach aging by encouraging teams to develop interventions that restore muscle, brain, and immune function by at least 10 years—and ideally 20 years—in adults aged 50 to 80, all within a single year!

The Buck-Toulouse team's proposed solution combines a daily ketone ester supplement with ICOPE-INTENSE, a personalized, non-drug intervention spanning exercise, cognitive training, nutrition, and more. Designed to improve what the World Health Organization defines as "Intrinsic Capacity"—the combination of mobility, cognition, mental health, vision, hearing, and vitality—ICOPE-INTENSE is the most comprehensive program of its kind.

As John Newman, MD, PhD, Buck Assistant Professor and team co-lead explains, "This is the first major aging biology study to test whether a combined lifestyle and medical approach can reverse key aspects of aging." "Whether or not our team ultimately wins," says Verdin, "this competition will accelerate breakthroughs that help everyone live longer, healthier lives."

Buck Institute and Phenome Health Awarded Up to $52M to Help Transform Healthcare

The Buck and its partner Phenome Health received up to $52 million in funding from the Advanced Research Projects Agency for Health (ARPA-H), a federal agency focused on bold, game-changing health innovations.

The award supports a four-year research initiative called PATH— Personalized Analytics for Transforming Health—aimed at reimagining healthcare as something proactive rather than reactive.

Instead of waiting for people to get sick, the PATH project will use cutting-edge technology and artificial intelligence (AI) to predict and prevent disease—ultimately helping people stay healthier, longer.

At the heart of this work is the creation of what will be most deeply studied group of people in human history! These volunteers will share their health data—from genetics to sleep patterns—allowing researchers to understand how and when diseases begin and how best to stop them. Wearable tech like smartwatches and other digital tools will play a key role in tracking each person's health in real time.

Dr. Lee Hood, Chief Innovation Officer at the Buck and CEO of Phenome Health, is leading the effort. A pioneer of personalized medicine and one of the inventors of DNA sequencing, Hood says this project is the next big leap. "This is the first step toward a bold, new vision—using detailed data about each person to detect disease early and optimize health over the long term."

High-Impact Philanthropy

Every milestone we celebrate at the Buck is made possible, in part, by the generosity of our community of over 1,000 donors and families. Your gifts—large and small—are the fuel that powers discovery, drives breakthroughs, and accelerates the science of healthy aging.

Because of you, Buck researchers are pushing the boundaries of what's possible, bringing us closer to a future where growing older means living healthier, longer. We are deeply grateful for your partnership in advancing this bold and urgent mission.

Fighting Muscle Loss with Help from the Gut—and the Buck's Impact Circle

As we age, we naturally lose muscle mass and strength—a condition called sarcopenia. This muscle loss can increase the risk of falls, fractures, and loss of independence. Despite its impact, there are currently no FDA-approved treatments for sarcopenia. A new Buck Institute project aims to change that.

Supported by a $100,000 grant from the Buck's Impact Circle donor group, postdoctoral fellow Taylor Valentino is testing whether certain compounds produced by gut bacteria can slow or reverse muscle loss in aging mice. Early research is promising, and the award will allow him to take it to the next level.

A Novato native, Valentino holds a PhD in physiology and competes in ultramarathons—an activity known to preserve muscle. "Our gut and

muscles are in constant communication," he says. "I'm thrilled to explore whether gut-derived compounds can help people who can't exercise enough to maintain muscle health."

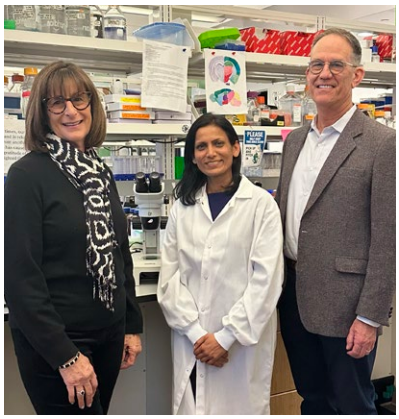
Founded in 2014, the Impact Circle brings together philanthropists who fund early-stage Buck research. Their support gives scientists like Valentino the resources to pursue bold ideas—and possibly, pave the way for future therapies.

A Family Legacy of Supporting the Buck Institute

"My dad and stepmother were very passionate about the Buck Institute," says Ann Rhoads, daughter of the late Dr. S. William Levy, a local dermatologist and UCSF research scientist who supported the Buck's research in its early years. Ann's stepmother, Elisabeth Levy, began funding the Buck's annual community seminar, introducing the family to the Institute's mission and work.

After Dr. Levy passed away in 2005 and Elisabeth in 2022, the family's support is continuous. The Levy Family Seminar was established in 2016 and has become an annual tradition.

Ann and her husband Jeff Rhoads, an architect specializing in sea level rise and transportation, deepened their involvement by joining the Buck's Impact Circle, a donor group that helps launch bold scientific ideas. "We're proud to be associated with the Buck," says Jeff. "It's incredible to have such cutting-edge science happening right here in our backyard."



Ann, who worked in high-end retail, has become an enthusiastic Buck ambassador, bringing friends and neighbors to events. "The opportunity to meet scientists and visit the labs is so exciting," she says.

The couple also credits the Buck's philanthropy team for making the science accessible. "Participating keeps us mentally active," says Jeff. "We've changed how we eat and live. 'Living better longer' has become one of our mantras."

The Buck Institute & the Larry L. Hillblom Foundation: Making Dreams Possible

A small foundation is making a big impact on aging research. Buck senior scientist Manish Chamoli, PhD, recently published research in Nature Aging showing that a natural compound can boost muscle and brain function and potentially reduce neurodegeneration by enhancing mitophagy—the cellular process that clears damaged mitochondria.

Chamoli credits the Larry L. Hillblom Foundation for helping launch his career. As a Hillblom Fellow from 2017–2020, he had the freedom to explore bold ideas. "Their support opened up so many avenues," says Chamoli, who's now co-authored 27 publications, including a Science paper on taurine and aging.

He also formed valuable connections, including with mentor Ana-Maria Cuervo, MD, PhD, chair of the Buck's Scientific Advisory Board.

The Hillblom Foundation has donated more than $8.4 million to the Buck. Its funding helped create the Hillblom Center for Integrative Studies on Aging and has supported many young investigators. "It's been incredibly rewarding," says Foundation President Peter Donnici.

The recent discovery of the mitophagy-inducing compound (MIC)—a substance found in some

cinnamons—stemmed from Hillblom's early investment. The project, which began in Julie Andersen's lab, has now led to the launch of a biotech startup, Symbiont, co-founded by Chamoli, Andersen, and Buck Professor Gordon Lithgow, PhD.

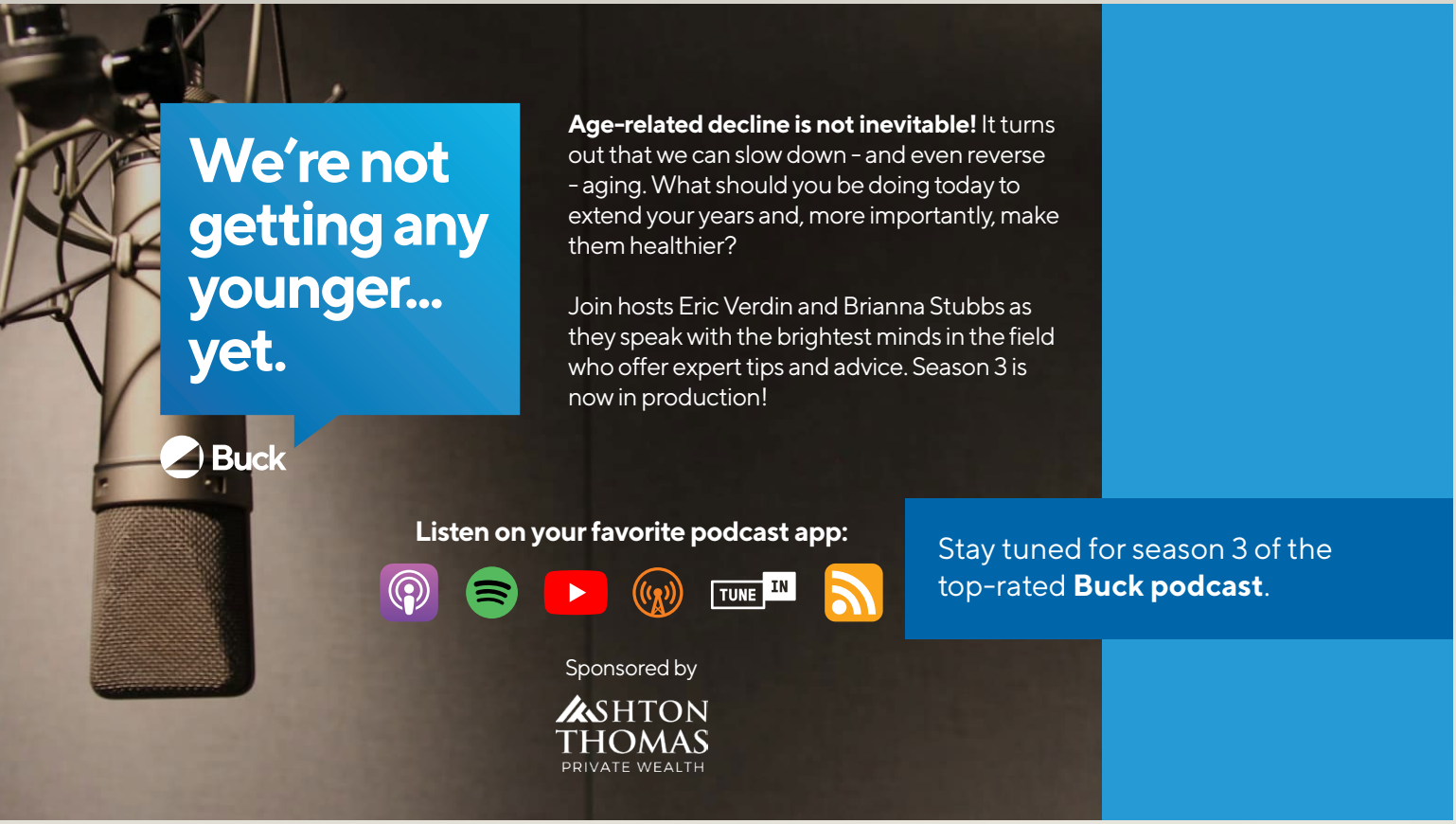
"The Hillblom Foundation built the center, funded the fellowship, and gave us the flexibility to pursue high-risk, high-reward science," says Lithgow. "Their unrestricted support made this possible—from a basic discovery to a potential therapy.

The President's Circle Launches

The President's Circle is an invitation-only community where members gain insider access to science, connect with Buck leaders, and help accelerate the future of healthy aging.

Member benefits include:

- Monthly insider briefings with CEO Eric Verdin
- Early access to breakthrough discoveries and research updates
- Opportunities to meet Buck scientists and engage with cutting-edge science
- Participation in a 12-month Longevity Learning Curriculum



Each December the Buck hosts the global **Longevity Summit** and the **Roundtable of Longevity Clinics**

Community seminars are held the first Wednesday of the month. Sign up at **buckinstitute.org/events**.

Eric Verdin emphasizes the importance of continued NIH funding in testimony before the Senate Select Committee on Aging in February.

Leadership Team

Eric Verdin, MD
President and
Chief Executive Officer

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Executive VP, Administration

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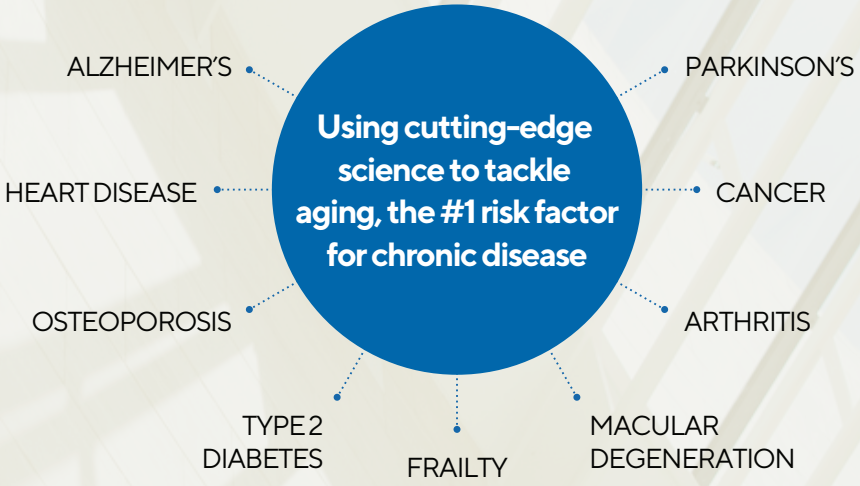

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