

preserving your memory

Winter 2017

Kimberly Williams-Paisley

Opens up about her Mom's battle with dementia—and the importance of research

Fisher Center
**PUBLISHES
FIRST BOOK**

Why Can't Grandma Remember My Name?
now available

PAT SUMMITT

We look at the amazing career and legacy of the legendary coach



FISHER CENTER FOR
ALZHEIMER'S
RESEARCH FOUNDATION

* PLUS THE LATEST NEWS ON
Alzheimer's research and treatment



To Our Donors:

The Fisher Center for Alzheimer's Research Foundation is grateful for the generous donors who help make our funding critical research possible. Through your generosity, our scientists are able to continue their research and are closer to finding a cure.

Thank you all for your unwavering support and for your continued confidence in our mission to end Alzheimer's.

Together we CAN end Alzheimer's.

With heartfelt gratitude,
The Fisher Center for Alzheimer's Research Foundation



To all the wonderful readers of Preserving Your Memory magazine:

If you enjoy reading our magazine and the articles within, we hope that you, too, will consider supporting the Fisher Center by helping us continue to educate the community through this important and one-of-a-kind magazine and fund novel, ground-breaking research about Alzheimer's disease.

**TO SUPPORT THE FISHER CENTER,
VISIT ALZINFO.ORG/DONATE TODAY OR USE THE ENVELOPE ENCLOSED.**

CONTENTS

ON THE COVER:


Letting the Light In 18

Actress and author Kimberly Williams-Paisley talks about her Mom's dementia and her journey with her family, as well as the importance of caregiving and further research.


DEPARTMENTS:


 From the President's Office 5

 News Briefs 6

 Fisher Center Research 14
Dr. Marc Flajolet explains some of the techniques and technologies employed by the Fisher Center laboratory in the search for a cure for Alzheimer's disease.

 Charity Day 22

 Food 23
Sweet can be healthy, too!

 Long-Term Planning 24
Now that we can diagnose Alzheimer's earlier than ever, the importance of long-term planning is even greater.

 Keeping Your Mind Sharp 26


 Fitness 30
Aerobic exercise is always a good idea—no matter what your age.



Photo: Dana Patrick

Kimberly Williams-Paisley

FEATURES:

Understanding and Preventing Wandering 8

What to do when a person with Alzheimer's wants to leave home.

The Fisher Center Publishes First Book About Life's Journey with Alzheimer's Disease 10

We share photos of the book signings and news coverage.

'Fierce Courage' 16

A look at Coach Pat Summitt's amazing career and enduring legacy.

preserving your memory



FISHER CENTER FOR
ALZHEIMER'S
RESEARCH FOUNDATION

110 East 42nd Street, 16th Floor
New York, NY 10017
1-800-ALZ-INFO (1-800-259-4636)
www.ALZinfo.org

Kent L. Karosen, Publisher
Jaymie Arkin Jacobson, Editor
Ashley Jaffe, Editor
Cory Ryan, Editor
Dr. Marc Flajolet, Science Editor
Jerry Louis, Graphic Designer
Toby Bilanow, Bernard A. Krooks,
Contributing Writers



Preserving Your Memory
is a product of
StayWell
407 Norwalk Street
Greensboro, NC 27407
(336) 547-8970

Sam Gaines, Managing Editor
Traci S. Cossman, Design Manager
Erin McCarthy, Account Manager
Jan McLean, Creative Director
Traci Marsh, Production Director
Kevin Gault, Trisha McBride Ferguson,
Margie Monin Dombrowski,
Tamekia Reece, Jennifer Sellers,
Contributing Writers

Cover photo: Dana Patrick

For advertising information, please contact:

Jaymie Arkin Jacobson
Fisher Center Foundation
(212) 915-1322

Erin McCarthy
StayWell
(336) 547-8970, ext. 3327

BOARD OF TRUSTEES

Zachary Fisher, Founder (1910-1999)
Barry R. Sloane, Chairman
Martin Edelman, Howard Lutnick, Vice Chairmen
Kent L. Karosen, President and CEO
Murray Rubin, Secretary
Barry R. Sloane, Treasurer

Dr. Manny Alvarez
Dr. E. Ratcliffe Anderson, Jr.
Gerry Byrne
Hadley Fisher
Hon. Betsy Gotbaum
Dr. Paul Greengard
James L. Nederlander, Jr.
Richard J. Salem
Dr. Moshe Shike
David H.W. Turner

SCIENTIFIC ADVISORY BOARD

Dr. Marc Flajolet, Chair
Dr. Floyd Bloom
Dr. Samuel Gandy
Dr. David Holtzman
Dr. Yueming Li
Dr. Jean-Pierre Roussarie
Dr. Sangram Sisodia
Dr. Rudolph Tanzi
Dr. Lars Terenius



Snap a photo of this QR code*
to get more information
about Alzheimer's disease!

*Download a free code reader app for your
smartphone at your phone's marketplace

© Copyright 2016 by the Fisher Center for Alzheimer's Research Foundation. No part of this publication may be reproduced or transmitted in any form or by any means without written permission from the Fisher Center for Alzheimer's Research Foundation. Articles in this publication are written by professional journalists who strive to present reliable, up-to-date health information. However, personal decisions regarding health, finance, exercise, and other matters should be made only after consultation with the reader's physician or professional adviser. All editorial rights reserved. Opinions expressed herein are not necessarily those of the Fisher Center for Alzheimer's Research Foundation.

A Winter Wonderland!



Kent L. Karosen

A new year has arrived and with the year ahead of us, we are met with hope and a world of possibility. We hope this issue of *Preserving Your Memory* warms you as you weather the winter.

I am pleased to announce to our *Preserving Your Memory* readers that I, along with children's book writer, Chana Stiefel, published a new book called *Why Can't Grandma Remember My Name?*, a book that explains Alzheimer's disease using artwork created by children juxtaposed with art created by Alzheimer's patients, demonstrating the power of art therapy for all ages. We launched the book in November (page 10) at five US retail locations and received enormous press coverage, as well! Royalties from book purchases go directly to the Fisher Center for Alzheimer's Research Foundation. In spending time with your loved ones this holiday season, I hope you will consider sitting with young ones to share the heartwarming message of hope and love in the midst of an Alzheimer's diagnosis in our new book.

The Fisher Center continues to support the work of Dr. Paul Greengard's laboratory, and we have a fascinating look at some of the technologies and techniques the lab uses in its search for a better understanding of how Alzheimer's disease develops (page 14).

Our cover story (page 18) is a conversation with actress and author Kimberly Williams-Paisley, whose book *Where the Light Gets In: Losing My Mother Only to Find Her Again* is an inspiring memoir of her mother Linda, her family, and Linda's battle with a rare form of dementia. Linda lost that battle in November 2016.

Elsewhere in this issue, we take a fond look back at the career and legacy of Coach Pat Summitt, the legendary leader of the University of Tennessee's powerhouse women's basketball team, who lost her battle with early-onset Alzheimer's earlier in 2016 (page 16).

We hope this issue of *Preserving Your Memory* inspires you to join us in the search for a cure for Alzheimer's disease!

Sincerely,



Kent L. Karosen
President & CEO

Please send your tips, stories or questions to:

Fisher Center for Alzheimer's Research Foundation
110 East 42nd Street, 16th Floor
New York, NY 10017

or by e-mail to info@alzinfo.org

We can end Alzheimer's.

About the Fisher Center for Alzheimer's Research Foundation

Since 1995, the Fisher Center Foundation, a 501(c)(3) nonprofit organization, has been providing hope and help to the public by funding research into the cause, care, and cure of Alzheimer's disease and creating much needed educational programs. We are one of the world's largest research teams leading the battle against Alzheimer's disease. Our team of internationally renowned scientists, under the direction of Nobel Laureate Dr. Paul Greengard, has been at the forefront of research that has provided a conceptual framework for modern-day investigations into Alzheimer's disease. The Fisher Center Foundation has earned Charity Navigator's highest 4-Star rating five years in a row for fiscal management and commitment to accountability and transparency. For more information or to make a donation, go to www.ALZinfo.org.

The LATEST NEWS on Alzheimer's Disease and Brain Health

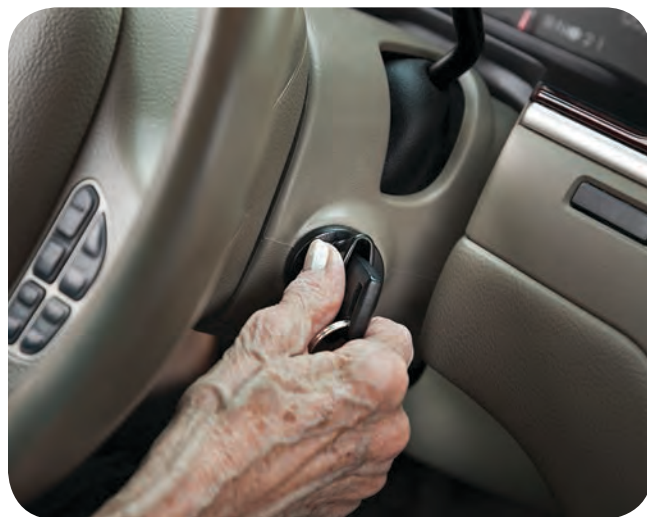
When to Give Up the Car Keys?

While those with moderate to severe Alzheimer's should not be driving, two new studies underscore how difficult it can be to determine the best time to stop driving if you have early Alzheimer's, a decision that typically must be made on a case-by-case basis.

The first, in the *Journal of Alzheimer's Disease*, found that up to a third of those with very mild or mild Alzheimer's failed a driving road test. Less than 2 percent of older drivers without dementia failed such tests.

The second study, in the *Journal of Nursing*, reported that safe driving does not depend on someone's age or lack of accidents. Someone with Alzheimer's could say something along the lines of "I have never had an accident," said study author Lisa Kirk of Florida Atlantic University. "But that's not necessarily a good indicator that someone is a safe driver." Rather, driving skills should be assessed.

She and her colleagues suggest a three-pronged approach to testing older drivers. First, anyone with Alzheimer's should get a detailed assessment and medication review from a doctor; some drugs can



impair driving ability. Second, driving can be tested using a computerized simulation. Finally, drivers can take a driving road test with a certified road test examiner.

The American Academy of Neurology recommends a reassessment every six months for people with very mild dementia who continue to drive.

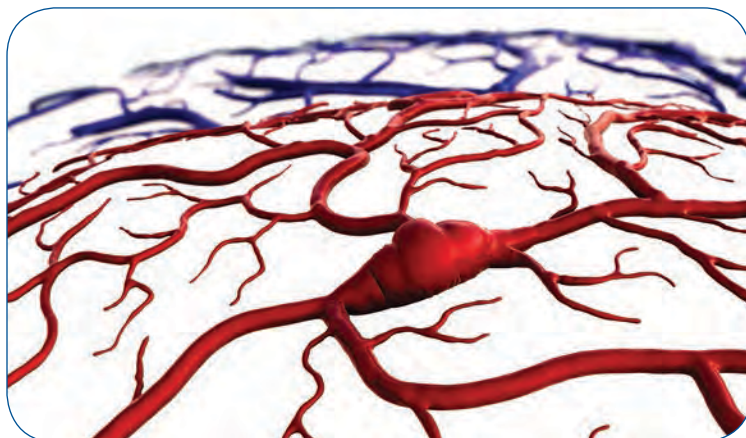
To Fight Alzheimer's, Think Cardiovascular Health

Diseased blood vessels in the brain may play a larger role in Alzheimer's disease than previously thought, according to a new report. The findings underscore the importance of heart and blood vessel health in promoting the health of the brain.

For the study, published in *The Lancet*, researchers from the Rush Alzheimer's Disease Center in Chicago reviewed the medical records of 1,143 men and women who had donated their brains for study after death. More than a third of them had hardening of the arteries in the large and small blood vessels of the brain, a sign of restricted blood flow to the brain.

The researchers found that the worse the brain vessel disease, the higher the chance that someone had Alzheimer's or another form of dementia. They also found that blood vessel damage in general was associated with impaired memory and thinking skills, regardless of whether someone had dementia.

Various measures may promote cardiovascular health—and perhaps protect the brain. They include eating a heart-healthy diet, getting regular exercise, stopping smoking and keeping cholesterol in check.





Could Diabetes Drugs Aid Alzheimer's?

A study shows new ways in which diabetes, a disorder of blood sugar control, may be linked to Alzheimer's disease. The study found that changes in the brain typical of Alzheimer's disease are tied to changes in the way that the body processes blood sugar, or glucose.

The findings, the authors say, raise the possibility that drugs to treat diabetes could one day be useful in the treatment of Alzheimer's as well.

For the study, in *Diabetologia*, scientists looked at mice that were genetically modified to develop high levels of an enzyme called BACE1. In people, the enzyme is tied to the buildup of a toxic brain protein called beta-amyloid that clumps together and forms amyloid plaques in the brains of those with Alzheimer's disease. The researchers found that high levels of the enzyme can also lead to changes in the way the body processes blood sugar, setting the stage for diabetes.

"We now think that some of the compounds that are used for obesity and diabetes might potentially be beneficial for Alzheimer's patients as well," said study author Bettina Platt of the University of Aberdeen in Scotland. Several new drugs are being investigated to see if they would affect both Alzheimer's and diabetes symptoms.

It's a long way from mice to people, and much more research is needed. However, the findings add to a growing body of research linking diabetes with Alzheimer's.

Anemia Tied to Memory Problems

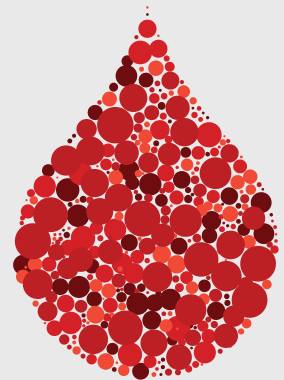
Anemia, or a low red blood cell count, is associated with an increased risk of mild cognitive impairment, a form of memory loss that often precedes Alzheimer's disease. The findings are important because effective treatments for many forms of anemia are available, and such treatments may help to reverse the memory problems that can arise.

For the study, European researchers looked at more than 4,000 older Germans who ranged in age from 50 to 80. Participants underwent medical exams from 2000 to 2003, then again five years later.

The researchers found that older men and women with anemia were nearly twice as likely to be diagnosed with mild cognitive impairment than those who were not anemic.

In addition to memory problems, people with anemia also were more likely to have heart disease and related problems. The findings appeared in the *Journal of Alzheimer's Disease*.

The results suggest that anemia should be considered in anyone suffering from mild cognitive impairment. Doctors can easily test for low iron levels, and if anemia is found, treatments are often readily available to treat the condition, and perhaps reverse the memory loss.



For more information:

Visit www.ALZinfo.org often for up-to-date and expert-reviewed scientific news.

Understanding *and* Preventing Wandering

By Margie Monin Dombrowski

Wandering is a common problem for those living with Alzheimer's disease and other forms of dementia, and it can make for a scary situation when families and caregivers aren't prepared.

Roughly 60 percent of elders with Alzheimer's occasionally wander away from their home or caregivers. Even if your loved one hasn't wandered yet, it's important to understand wandering and what you can do to protect them.

While wandering can happen at any stage of Alzheimer's, it tends to happen more at the early to mid-stage. "It's usually when the person is still living at home and hasn't yet gotten to the point where they have to move into an assisted living facility," explains Elizabeth Landsverk, M.D., geriatrician for ElderConsult Geriatric Medicine, a house call practice in Burlingame, CA.

Warning Signs

People with dementia can live independently as long as their memory allows them to handle everyday tasks. Watch out for the following signs and symptoms to reduce the risk of wandering and determine what kind of assistance is needed.

An elder with AD is more likely to wander when they're stressed, or when trying to follow an old routine. Other wandering risk factors include sleep aids and anti-anxiety medications, which may seem to calm them at first, but can later make them more confused or irritated.

While the person may experience some memory problems, Landsverk warns that it's when they start forgetting they're already at home and keep saying that they have to go home, for example, that a person may be at risk to wander.

"They get a little more delusional about what's reality," Landsverk says, recalling the story of one of her patients, a woman who was living by herself and would still attend church or go to the bank on her own, but would claim they took her money. "At night she would start wandering, but she didn't want caregivers, so that was a problem."

Sometimes the person gets scared once it's dark and they want to go somewhere, which sometimes involves getting into a car and driving off. That can prove particularly frightening to patient and caregiver alike, all the more so when the person with Alzheimer's is found without their car and needs to get back home.

By keeping an eye on your Alzheimer's patient, closely watching for these signs and being proactive, you can hopefully avoid elopement. Sometimes this calls for round-the-clock caregivers. The bottom line: If a person with Alzheimer's starts wanting to go out, a caregiver should be with him or her every step of the way.

An Alzheimer's patient prone to wandering needs someone to stay awake at night to watch out for them. During the day you can be pretty vigilant and keep track of them ... but if they wander at night and you're asleep, that's dangerous.

"When they start saying, 'I have to go to school,' or 'I have to go to work,' and start going for the door, take it seriously and come up with plans," Landsverk says.

Planning for Safety

There are many ways to keep someone with dementia safe at home, or at an assisted living facility—and it all depends on the needs of the elder. Take action before you start to see warning signs.



At home, you can put child safety locks on doors, or use a home security system that alerts you if a door or window is opened, which can tip you off if the elder is trying to leave. An identification bracelet with GPS tracking is another option (but consider they may try to remove or cut it off).

Keeping the elder engaged in their favorite activities can tire them out so they sleep at night, which can curb wandering. This can include allowing the elder to go out and take walks on their own during the day.

“For some, their independence is worth more than living in a facility,” says Landsverk. “Helping them preserve their independence with some risk is preferable than putting them in a facility. Families need to decide what risk they want to live with.”

After a while, having 24/7 caregivers can get difficult and costly, and at that point it may come time to transition to a nursing home or assisted living facility. But don’t assume that a nursing home automatically means better care, warns Landsverk, so do your homework on the facility.

“Folks often think if someone’s wandering we should put them in assisted living, but it’s mainly made for

elders who are frail,” says Landsverk. “You need to be candid with the facility if your mom is prone to wandering. It’s best to find a facility with a secured door and somebody at the door 24 hours a day.”

When visiting a family member who’s been trying to elope from a facility, Landsverk suggests to have a picnic instead of taking them out to eat, until the elder’s more relaxed in the new surroundings. “If you want to take mom out to dinner, she may think she can leave now and that doesn’t help the folks at the facility.”

Elders can enjoy their independence and quality of life, and that usually requires adjusting the care plan along the way, and reassessing whether the plan works for everyone.

“Your aim is for the elder to be safe and get the care they need in the least restrictive environment possible,” says Landsverk. “If one application doesn’t work, have plans B and C ready to go.” ●

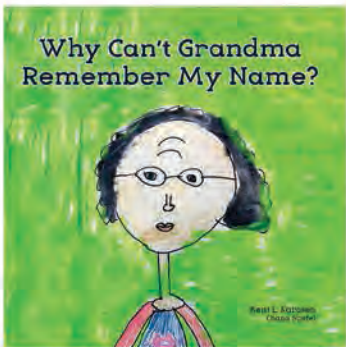


For more information:

Visit **www.ALZinfo.org** to learn more about wandering.



THE FISHER CENTER PUBLISHES FIRST EDUCATIONAL BOOK ABOUT LIFE'S JOURNEY WITH ALZHEIMER'S DISEASE



The book is written by Kent L. Karosen, Fisher Center President and CEO, and co-authored by Chana Stiefel. The book explains Alzheimer's disease in a way for parents and families to share with a younger audience what is happening to "Grandma" or other loved ones afflicted by the disease. The book also integrates artwork created by children juxtaposed with art created by Alzheimer's patients.

The book was released on November 1, in conjunction with the start of Alzheimer's Awareness Month. Kent Karosen introduced the book in New York City, Miami Beach, St. Petersburg, Florida, Aventura, Florida and Boca Raton, Florida promoting the book at signings and at an art gallery exhibit. Bloomingdale's in New York City was kind enough to donate three free windows outside of their store. One window included a video and the other two were static, featuring artwork from the book. Artwork was featured and hundreds of people received Fisher Center literature. The goal of this initiative was to raise awareness of the need to continue funding research in the quest to find a cure and to educate young readers about the disease.

The Fisher Center sends its sincerest thanks to Bloomingdale's, Williams McCall Gallery and Barnes & Noble in St. Petersburg for arranging these wonderful events and supporting the Foundation in their quest to find a cure.

The Fisher Center Took NYC and Florida By Storm With Five Book Launch Events!

ALL ROYALTIES FROM BOOK SALES AT BELOW EVENTS WENT DIRECTLY TO THE FISHER CENTER IN THE QUEST TO FIND A CURE FOR THE DISEASE.



BLOOMINGDALE'S - NEW YORK CITY



Mt. Howard Lutnick, Vice Chairman of the Foundation



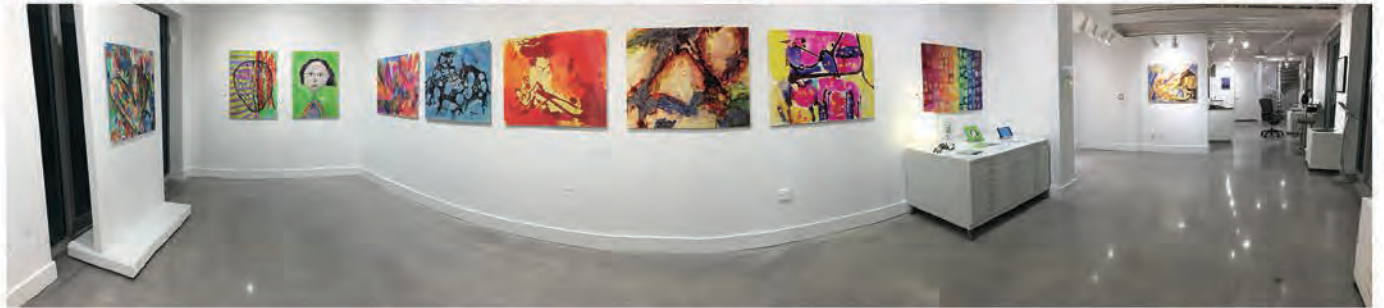
WILLIAMS MCCALL GALLERY - MIAMI BEACH



Rabbi Marc Philippe
Temple Emanu-El



Rabbi Marc Philippe, Temple Emanu-El
with Temple Congregants



BARNES & NOBLE - UNIVERSITY OF SOUTH FLORIDA, ST. PETERSBURG



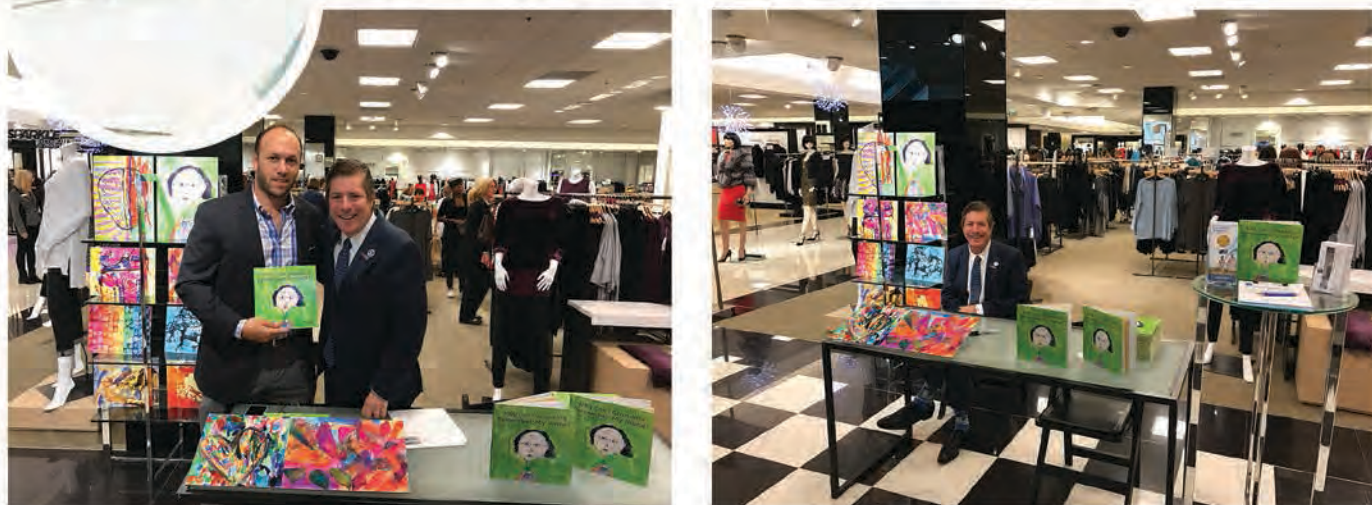
Congressman David Jolly



BLOOMINGDALE'S - AVENTURA, FL



BLOOMINGDALE'S - BOCA RATON, FL



Fun was had by all who attended the events.
The Fisher Center greatly appreciates everyone's support
and excitement around their newly published book.

THE FISHER CENTER GRABBED MEDIA'S ATTENTION!



TIME



Fisher Center Scientists Pioneer Techniques and Technologies in Search of an Alzheimer's Cure

The laboratories at the Fisher Center for Alzheimer's Research, led by Nobel laureate Dr. Paul Greengard, make use of cutting-edge techniques and technologies in order to identify the processes by which Alzheimer's disease affects the human brain, as well as novel pathways for possible treatments and, it is hoped, an eventual cure.

Much of the work at the Fisher Center involves the use of established *in vitro* (literally, "in the glass"—referring to the Petri dish that cells are placed in for observation) and *in vivo* (literally, "within the living") techniques. *In vitro* means that scientists grow isolated cells in the laboratory, while *in vivo* means studying the actual brain. "Because important cognitive functions, such as memory, require much more than isolated cells in a petri dish, it is essential to study new therapeutic targets and pathways in the context of the intact brain," says Dr. Marc Flajolet, Research Assistant Professor, the Fisher Center for Alzheimer's Research at The Rockefeller University and Chairman of the Fisher Center for Alzheimer's Research Scientific Advisory Board.

One of the key elements used with *in vivo* studies is the mouse brain. The Fisher Center scientists have constant access to several types of mouse models showing the brain degeneration typical of Alzheimer's disease, but they have also created new models. "The two main hallmarks of the disease, amyloid plaques and tau tangles, are replicated in these animal models," says Dr. Flajolet.

"This is giving an entirely new way to look at disease hallmarks, while taking into account the presence of accessory cells (such as microglia) and blood vessels that are surrounding the hallmarks. This should speed up our understanding of the disease progression and it might help organizing patients in sub-categories based on retrospective postmortem exams."

—Dr. Marc Flajolet

TRAP

In fact, the scientists at the Fisher Center pioneered some of these technologies themselves.

One of these techniques is called translating ribosome affinity purification, or TRAP. This process allows for the dissection of very specific types of nerve cells (neurons) from the brain. It was once believed that the 100 billion-plus neurons in the brain, as well as their supporting cells, were basically the same and did the same basic functions, but we now know that is not the case.

“We now know that they are divided in a multitude of different types of neurons, involved in many different brain functions depending on their localization in the brain, how they signal, and also based on where they are getting messages and where they are sending them,” says Dr. Flajolet.

That differentiation between neurons according to function has significance beyond identifying them for dissection. “We also know that neurodegeneration, the general mechanism underlying dementias in a large part, is not affecting all the neuron types in the same way,” Dr. Flajolet points out. “This also means that some neurons are more vulnerable while others are rather resistant to the disease process.”

TRAP empowers Fisher Center scientists to selectively study neuron types for their roles in brain function and Alzheimer’s progression. Using the TRAP technique, Fisher Center scientists are able to study the differences between neurons that are vulnerable to the Alzheimer’s disease process, and those that are resistant, trying to understand the mechanisms underlying vulnerability in Alzheimer’s disease and hoping to correct this therapeutically. The TRAP technique was developed by the Fisher Center lab in collaboration with another lab at The Rockefeller University about 10 years ago. TRAP is now a state-of-the-art laboratory standard used worldwide.

iDISCO

Studying the formation and progression of Alzheimer’s disease requires advanced optical technologies, as well. Here again, the Fisher Center scientists were on the leading edge of technology development. The team optimized a visualization method called iDISCO, which was also developed at the The Rockefeller University to work specifically with amyloid plaques and tau tangles.

“The original method allows us to transform an opaque piece of brain tissue into a transparent sample that allows for microscopic observations of the entire brain sample in the case of a mouse brain,” says Dr. Flajolet. “We have applied it to the mouse models of Alzheimer’s disease but also to human brain samples from Alzheimer’s patients.”



Dr. Marc Flajolet

The Fisher Center scientists published the results of this optimization earlier in 2016.

“This is giving an entirely new way to look at disease hallmarks, while taking into account the presence of accessory cells (such as microglia) and blood vessels that are surrounding the hallmarks,” says Dr. Flajolet. “This should speed up our understanding of the disease progression and it might help organizing patients in sub-categories based on retrospective postmortem exams.”

These cutting-edge technologies and laboratory-standard techniques all serve to give Fisher Center scientists the tools they need to continue their leadership in Alzheimer’s research and remain on a quest to find a cure. ●

+ For more information:

Visit www.ALZinfo.org often for up-to-date and expert-reviewed scientific news.

Photo: University of Tennessee



'Fierce Courage'

A legendary basketball coach, Pat Summitt made a lasting impact on organized sports and Alzheimer's research.

By Kevin Gault

Pat Summitt learned about hard work and discipline as a young child. On her family's farm in Clarksville, TN, when she asked her father when she could stop working in the fields for the day, he would reply, "You'll be finished when it's done. And it's not done until it's done right."

In those early years toiling on the farm and tussling with her three older brothers in family basketball games on a makeshift court in a barn, a strong, smart, compassionate leader was beginning to bloom.

"My mom's childhood helped to shape her into the leader she became," says Summitt's son, Tyler. "Growing up on the farm under a strict father, she never took a day off and she learned the discipline that she carried throughout her life."

Winning Ways

In time, Summitt evolved from farm girl into basketball coaching legend. As head coach of the University of Tennessee women's team for 38 years, she garnered 1,098 wins, eight NCAA women's championships and two Olympic gold medals. In 1999, Summitt was inducted into the Women's Basketball Hall of Fame and in 2000 she was named the Naismith Basketball Coach of the Century. She received the Presidential Medal of Freedom in 2012.

Summitt was widely known as one of the hardest-working and toughest coaches in college basketball history—on several occasions, the University of Tennessee asked her to coach its men's basketball team. Her players tell colorful anecdotes of her iron will, but just as often, they talk about how deeply she cared.

In her memoir, *Sum It Up*, Summitt describes her approach to coaching: "It's a job in which you grab kids by the arm and pull them out of their emotional fires, whatever that fire is, and show them what real self-worth looks like. Sometimes I almost wanted to say to a kid, 'I'm going to save you from yourself, and you don't even realize you need it. It's going to be tough love and you're going to get it in heavy doses, and you won't like me at first, but at the end of the day you will love me. I'm going to show you how to live.'"

Tamika Catchings, who played for Summitt at Tennessee and went on to become a four-time Olympic gold medalist and a perennial Women's National Basketball Association All-Star, talks about her coach: "In every aspect of the game, she taught us what it would take to be successful—hard work, dedication, perseverance, love and being committed to whatever we were doing in that moment. She didn't want us to

just be great on the court, but even more importantly, in the classroom and in the community."

"Have you ever walked along a shoreline, only to have your footprints washed away by the surf? That's what Alzheimer's is like."

—Pat Summitt

A New Challenge, an Enduring Legacy

Summitt never backed down from a challenge, but in 2011 she faced her toughest challenge ever—she was diagnosed with Alzheimer's Disease at age 59. She responded in a familiar way.

"Most people would retreat out of the spotlight when something like that happens, but she attacked the disease head on," says Tyler Summitt. "My mom's leadership after her Alzheimer's diagnosis was that of 'Fierce Courage,' which is the motto on Pat Summitt Foundation wristbands."

In 2015, The Pat Summitt Alzheimer's Clinic was established, which opened in December 2016. The Clinic delivers patient care, provides caregiver resources and conducts clinical research trials.

In *Sum It Up*, Summitt reflects on the nature of Alzheimer's disease: "Have you ever walked along a shoreline, only to have your footprints washed away by the surf? That's what Alzheimer's is like. The waves steadily erase the marks we leave in the sand, all the sand castles. Some days are better than others—the waves come in and they recede, bringing a fog with them that sometimes clears."

In June 2016, Summitt passed away in Knoxville, TN, after bravely fighting the disease for five years, leaving a lasting legacy of leadership. "She never wavered on her expectations, but she also let her players and friends know how much she cared," says Tyler. "She genuinely loved each and every player and wanted them to accomplish their goals both on, but especially off the court. I could not be more proud of my mother."

Tamika Catchings recalls the day Pat Summitt learned she had Alzheimer's Disease: "I remember getting the phone call from Pat and her telling me she had been diagnosed with the disease. Her voice stayed strong as she said we were going to fight this and we were going to win." ●

Letting the Light In

Actress and author Kimberly Williams-Paisley lost her beloved mother to a rare form of dementia in November 2016. The powerful impact her mother had on her life is beautifully captured in Williams-Paisley's touching memoir, *Where the Light Gets In: Losing My Mother Only to Find Her Again*. Williams-Paisley has made it part of her mission to educate others about the importance of research and caregiving in the fight against dementia. We were honored to speak with Kimberly about her mother and what Kimberly learned and experienced during this journey.

The oldest of three children, Kimberly Williams-Paisley comes from a tight-knit family, one that embarked on many adventures during her formative years. Trips to Cape Cod produced particularly warm memories. “We used to go to Cape Cod every summer, and that was always so much fun—we sang the same songs along the way,” Kimberly recalls. “Being together and being silly, going on adventures together, were all part of growing up.”

Kimberly got bitten by the acting bug early on, putting on musical productions at home with her brother, Jay. Later, as a student, Kimberly auditioned for a commercial and won the job, putting her dancing abilities to work for the National Dairy Board.

The Williams family supported Kimberly’s acting career from early on, with her mother, Linda, taking a particularly keen interest in her pursuit.

But the importance of an education was a point of emphasis in her family, as well, and Kimberly attended prestigious Northwestern University. It was there that she got her big break: a nationwide casting search for a lead role in the Hollywood remake of *Father of the Bride*, starring Steve Martin, caught her attention. To her enormous surprise, she eventually landed the part. The movie was a hit at the box office. “I went from feeling invisible at Northwestern to being the most recognizable person on campus,” she writes in her book.

It was the first stop on a career that has taken her through film, television and theater.

Among those who saw that movie was country music star Brad Paisley, who woke up one day on his tour bus thinking of Kimberly, out of the blue. He had seen *Father of the Bride* nine years before, and for some reason, Kimberly sprung up in his mind. Brad made a phone call to a friend in Los Angeles, who just happened to know Kimberly’s manager at that time. He talked to her manager, and her manager told Kimberly, “You’re totally gonna date him,” she said. Eight months later, Brad proposed.

The First Signs of Her Mother’s Dementia

The first sign that something wasn’t quite right with Mom occurred at Kimberly and Brad’s wedding. Linda was to read a passage from the Book of Colossians in the Bible, and the words just didn’t come out as smoothly as expected. She finally got through

it in fits and starts. “When finally she finished, I realized I’d been holding my breath,” writes Kimberly in her book.

The official diagnosis came later, in 2005: Primary progressive aphasia (PPA), a rare form of dementia that initially attacks the frontotemporal lobe of the brain (just behind the forehead).

It came as a blow to the entire family. The news arrived just before Kimberly discovered she was pregnant with her first son, Huck. The pregnancy was welcome news, but there was some anxiety over how Linda would react. There was more than just relief when Brad (via Skype, as he was on the road) and Kimberly shared the news with her parents at Kimberly’s sister Ashley’s apartment: “Dad’s mouth opened wide; Mom covered her face with her hands,” Kimberly writes. “Their eyes were wet with tears and laughter. They were ecstatic.”

Caregiving from a Distance

As expected, Linda’s deterioration was gradual, but continued. Kimberly’s father, Gurney, provided in-home care for his wife for years, struggling with the demands of caring for her and trying to take care of himself all the while. For Kimberly and her siblings, all involved in their own careers and families and spread out across the country, caregiving was a long-distance matter that required occasional interventions.

“Three thousand miles away, I was overcommitted to work and to my growing family, and unable to fly home for long enough periods of time to really help . . .,” she writes. “I was learning as I went, and operating on a certain level of denial myself.”

Gurney’s primary caregiving duties took their toll, and one day he had what he feared was a heart attack. It turned out not to be—just stress-related chest pressure, but it was all the wake-up call the family needed. “He needed more help, and he still wouldn’t admit it,” Kimberly writes. “I was starting to see that we were in danger of losing not only our mother but our father as well if we didn’t act.”

Act they did. The siblings conducted a caregiver intervention with their father. “My siblings and I had never before fought to take charge of a Williams family crisis. It had always been Dad’s role, or less frequently Mom’s,” Kimberly writes. “I was very uncomfortable usurping his leadership, even though he’d admitted that he couldn’t do everything by himself. The little girl inside me was also scared of my mother—of her

unpredictable reactions, of her rage and despair, of the disease that was running our lives.”

In-home care was the answer, and finally her father had additional support. But even that wouldn't be enough as Linda's condition worsened, and finally the family had to seek a suitable memory-care facility for their beloved wife and mother.

At Home in a New Home

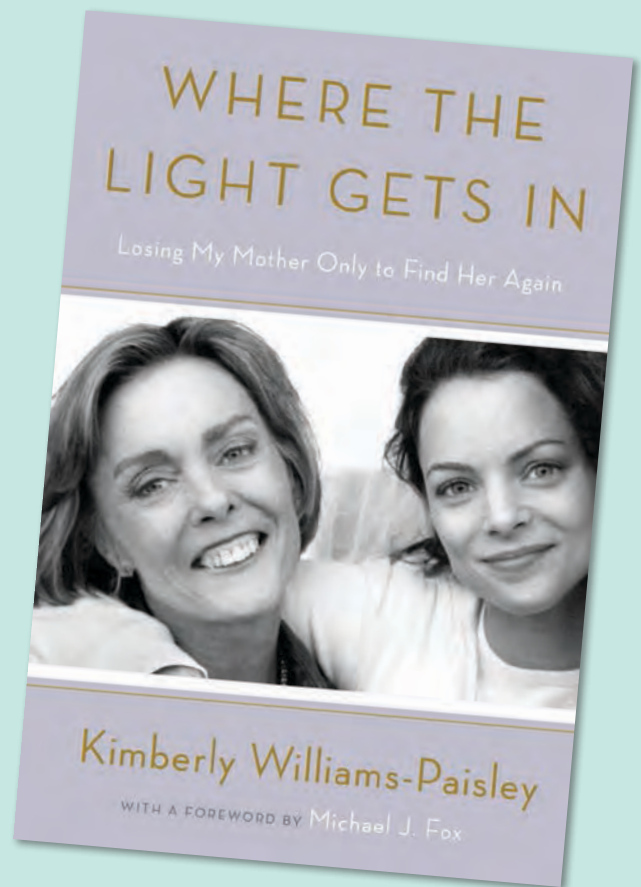
Even as Linda's behavior grew more erratic, there were still times when she had clarity. The juxtaposition of clarity and confusion was difficult for everyone to handle.

During one visit to her mother there, Kim's father spoke to her mom's doctor. "The possibility that she might still have normal thoughts and fears that were hidden from us, that she might be feeling the pain and horror of her experience or understand what was happening to her, was unbearable," she writes. "I preferred accepting the loss and trying to move forward. But to do that I needed to mourn, and I was having trouble figuring out how while she was still alive. I was in a holding pattern of confused grief."

But she did learn how to let go and embrace whom she called "New Mom." She learned much from the advice of other caregivers, as she recalls. *"I need to love my mother in the innocent way my children do. The empathetic way Mom herself has loved people, sometimes total strangers, her whole life. I need to see her as she is, instead of how I want her to be,"* she writes. "Maybe we could find a way to communicate with each other. Maybe then I could let go of the pain. I could be free."

Kimberly recalls the advice she once received from an acting teacher, Lesly Kahn: "Ride the horse in the direction that it's going. *Instead of wishing for things to be different, choose to embrace the life in front of you,*" Kimberly writes. "When I let go of my tight grip on expectation, I found I could still have some kind of relationship with my mother. I could share love with her in a beautiful new way."

These experiences with her mother as she went through the changes wrought by PPA led Kimberly to some eye-opening realizations about her own family. "This is the arc of a family. Over the years, there are a series of arrivals and departures," she writes. "And in the midst of that, part of the challenge is encouraging the people we love to become independent, and to love them as they really are."



Finding Healing in Writing

Kimberly had enjoyed writing since she was a child and first began journaling. She honed her craft over time, and as a new bride landed a gig writing a column for *Redbook* magazine. That opportunity opened another door for her: a chance to write about her Mom. "I'd gotten some attention for a magazine piece I'd written, and the response to it made me realize I had an opportunity to help people by sharing my story," she writes.

That article led to her full-length book, *Where the Light Gets In*.

The reaction to the book has been very encouraging for her. "The outpouring of support has been absolutely amazing. Hearing from so many people that they read the book and feel like they know my Mom, and that her struggle helped them with what they're going through, has been so rewarding," she says. "That my Mom's story can help and encourage so many others, is the silver lining for me."



A Few Words of Advice

For those facing the challenges of caregiving, Kimberly does have advice from her own experiences—much of which came through her family’s support. “I advise people to get help and avoid secrecy and stigma, which was something that kept our family from support systems and resources that could’ve helped us,” she says. “One of the first things I tell people is to reach out and get help. A lot of people and families with dementia sort of hide, because they’re embarrassed or don’t want people to know. Encourage discussion.”

She also stresses the importance of supporting the primary caregiver and being clear about one’s own wishes for continued medical care. “My dad was doing a lot of things we didn’t even realize, and his health was in danger. A lot of caregivers are at high risk for depression and other illnesses,” she says. “And when possible, let go of guilt. Guilt doesn’t get us anywhere.”

Taking care of oneself is also important. “Lastly, stay active in your community,” Kimberly says. “When you exercise your heart, you exercise your head. Keeping your brain active and blood pumping is great for your brain’s health.”

Research: The Critical Key

As with Alzheimer’s disease, PPA has no cure and only a few limited treatments for symptoms. “Research is critically important. Many groups are doing great work to raise money for fundraising,” she notes. “Dementia is far more expensive in the last five years of life than heart disease and cancer. And 24/7 caregiving needs are costly and exhausting. It only has a fraction of the funding that it should.”

Of course the numbers are daunting, but there are stories behind the numbers that need to be told—such as her own mother’s. “It’s important to me to tell the personal story behind the stats,” she says. “It’s about real people who are near and dear, and I’m going to keep working to spread that message.” ●

Where the Light Gets In: Losing My Mother Only to Find Her Again is available from Amazon.com, BarnesandNoble.com, and everywhere books are sold. The paperback version arrives this spring.

Fisher Center's Celebrity Ambassador, Shaquille O'Neal, Raises Awareness of Alzheimer's at Cantor Fitzgerald/BGC Partner's Annual Charity Day

The Cantor Fitzgerald Relief Fund's Charity Day is a very meaningful occasion each year. On this day, the firm and its affiliates commemorate the 658 employees who perished in the 9/11 attacks by donating their global revenues from that day to charities around the world.

For the seventh year, the Fisher Center for Alzheimer's Research Foundation was grateful to be one of the beneficiaries of Charity Day, receiving a portion of the revenues raised to further the work of Nobel laureate Dr. Paul Greengard's Alzheimer's research laboratory, The Fisher Center for Alzheimer's Research at The Rockefeller University in New York City.

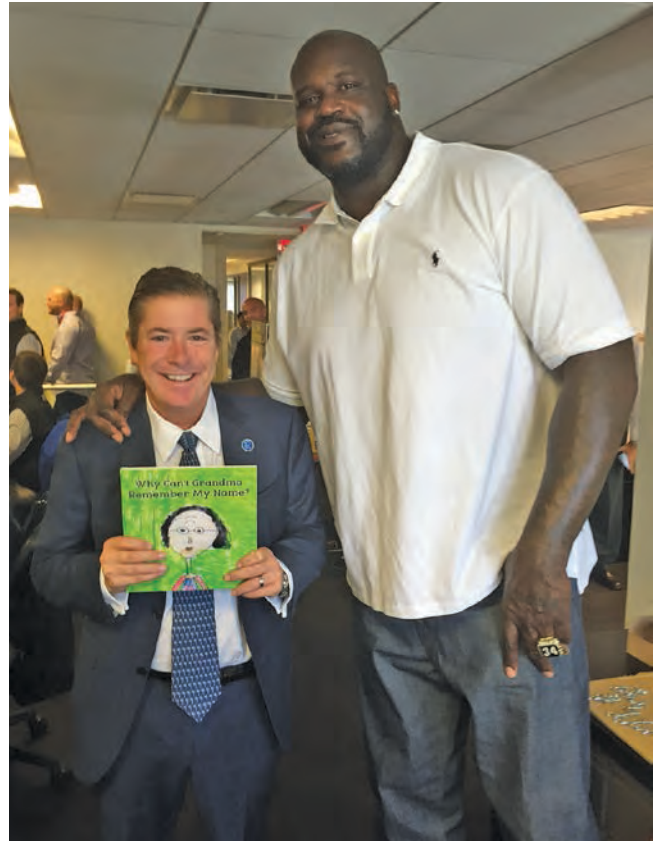
To date, the firm has raised \$280 million for charity on this special day.

To bring focus to the day and event, celebrity ambassadors participate on behalf of charities. Many actually speak with clients and take part in floor trades, guided by a broker, at the New York Stock Exchange.

This year, a very special guest joined the festivities—Shaquille O'Neal, the legendary NBA star who was recently inducted into the Basketball Hall of Fame, who served as Celebrity Ambassador for the Fisher Center Foundation.

Charity Day is sponsored by Cantor Fitzgerald, BGC Partners and Newmark Grubb Knight Frank. The Fisher Center Foundation conveyed its gratitude for being included as a beneficiary of Charity Day. "We are grateful that the Cantor Fitzgerald Relief Fund has selected the Fisher Center and Alzheimer's research as a cause worthy of its support," said Kent L. Karosen, President/CEO Fisher Center for Alzheimer's Research Foundation.

The toll of Alzheimer's disease is immense and growing. Every day, almost 1,500 people are diagnosed with the condition in the U.S. In 2015, the cost of Alzheimer's treatment surpassed \$200 billion in health services. In the next couple of decades, experts fear that the cost of Alzheimer's treatment will skyrocket, threatening the very



Kent Karosen and Shaquille O'Neal

existence of Medicare and Medicaid themselves, which currently cover more than one-half of the total costs.

For this year's event, the Fisher Center will share a portion of its funding from Cantor Fitzgerald with The Pat Summitt Alzheimer's Clinic at UT Medical Center. Coach Summitt battled Alzheimer's until her passing in 2016. (See the article on Coach Summitt's career and legacy on page 16 of this issue of *Preserving Your Memory*.)

"Pat Summitt and I shared an obvious love of basketball and she has been a tremendous inspiration to so many people, including myself," said O'Neal. "I am proud to support the Fisher Center for Alzheimer's Research Foundation in the quest to find a cure for Alzheimer's." ●



Valentine's Day Treats You'll Love

Share these healthy and delicious desserts with your sweetheart.

By Jennifer Sellers



Healthy treats may not seem like the most romantic way to celebrate Valentine's Day, but they can allow you to show your significant other you sincerely care about their health. Besides—healthy treats don't have to be bland and boring; they can be sweet and delicious. Who would have thought that even chocolate can be a healthy choice!

Dark Chocolate

If you're going to indulge in a box of chocolates for Valentine's Day, choose dark chocolate. Dark chocolate is high in inflammation-fighting flavanols, while milk chocolate has less of the antioxidant. A recent study found that men and women who consumed a dark-chocolate beverage for three months performed much better on memory tests than participants who did not. In addition, brain scans showed that the participants had improved blood flow to the hippocampus, an area of the brain affected by Alzheimer's disease.*

Cinnamon-Sprinkled Nuts

The latest research suggests that a diet rich in nuts could help keep Alzheimer's disease at bay. One study examined nut intake as part of a Mediterranean diet and found that participants who were supplementing their diets with nuts were more likely to do well on tests evaluating memory and thinking skills. If you consider nuts too plain for a Valentine's Day treat, add a dash of sweetness by sprinkling cinnamon over them. Cinnamon may also be good for cognitive health. CEppt, a substance found in cinnamon bark, may help

inhibit the buildup of toxic proteins, like beta-amyloid, in the brain.

Decadent Berries

Berries are naturally sweet treats with brain-boosting benefits. Blueberries have long been heralded as a brain food, but strawberries, raspberries, blackberries and cranberries also contain flavonoids that may help enhance brain function and ward off cognitive decline. For a special dessert after your Valentine's Day dinner, consider a bowl of berries mixed with ricotta mousse.

Avoid Frequent High-Sugar Treats

High blood glucose levels have been associated with a higher risk of dementia in people without diabetes. However, diabetes has also been linked to dementia. While one Valentine's Day treat won't put you in jeopardy for high blood sugar, regular indulgences may. So feel free to have a piece of candy or two, just don't make sugary treats a habit.

Snack Healthy All Year Long

No healthy treat can improve brain functioning in one sitting. Researchers and physicians recommend consistently incorporating beneficial foods into your daily meals to improve your cognitive and overall health. ●

**None of the participants in the dark chocolate study had Alzheimer's disease at the time of the study.*



The Silver Lining of an Early Diagnosis

By Tamekia Reece
Edited by Bernard A. Krooks,
JD, CPA, LL.M., CELA

There seems to be a discrepancy among the population: whether they would prefer to know in advance if they have Alzheimer's, or if they would rather put off getting a diagnosis of Alzheimer's disease (AD) until the later stages of the disease. They may think, what's the point in having early notice about something for which there is no cure? Others may fear an early-stage diagnosis means they'll worry so much about the future that they will no longer be able to enjoy the present. However, as difficult as it is, getting an Alzheimer's diagnosis sooner rather than later does have some benefits.

Planning for the Future

The biggest advantage of an early diagnosis is that you are able to get your affairs in order and you can participate in the long-term planning of your life. "With a later diagnosis, the AD may have already progressed to the point where you can no longer tell people what you want and what your preferences are," says Catherine Anne Seal, JD, LL.M., CELA, President of the National Academy of Elder Law Attorneys (NAELA) and senior member of the law firm of Kirtland & Seal, LLC, in Colorado Springs, CO. An earlier diagnosis, on the other hand, allows you to express your wishes and preferences with the people who will be caring for you when you're no longer capable of making decisions, she says.

An early diagnosis means you get the chance to do the following:

Choose an Agent

Your agent is the person who you would like to manage your legal, financial and personal care decisions if you are unable to do so. An early diagnosis allows you to decide for yourself who that will be rather than having family choose or having the court appoint someone as a guardian or conservator. Instead of picking someone simply because he or she is your older child or sibling, truly consider who you would like to have in charge. "You need to really think about who is trustworthy with finances and who is going to do things the way you want," Seal says.

Tend to Legal Matters

Once you decide on an agent, you will need to get a durable medical power of attorney so the person is able to make medical decisions for you if you're unable to and a durable financial or general power of attorney so he or she can handle financial matters for you, Seal says. It's also a good time to create or update your will. In addition, you may want a living will. "The living will gives doctors guidance about how you wish to be treated in certain medical situations, like if you're terminal or in a persistent vegetative state," Seal explains. Some documents can be prepared without an attorney, but if you're unsure or have particular questions, seek assistance from one who specializes in elder law.

Organize Financial Information

It's very important for your family to be in the loop about your financial situation. You don't have to reveal specific figures, but make sure trusted individuals are able to access the information when necessary. Create a list of your important financial details, such as bank accounts, income, savings, pension and 401(k), assets and debts. Have a copy of your tax returns, vehicle titles and property deeds. Make a plan and discuss how your long-term care will be covered. Keep the information in a lockbox or folder and let your agent or a trusted family member know where to find it.

Gather Other Important Documents

In addition to financial records, know where birth certificates, marriage licenses, divorce decrees, driver's licenses, passports, military records and similar documents are stored. Many families find themselves searching for, or scrambling to replace, important paperwork for a loved one. These items (or copies) should also be kept in your lockbox or folder.

Discuss Health and Care Wishes

One of the biggest struggles for caregivers and families of a person diagnosed with AD is deciding what kind of care the person would choose if able.





Talking to the Person with AD

An Alzheimer's diagnosis is emotionally upsetting for both the person who is diagnosed and the family. When you try to share your wishes and decisions, you may get some resistance from other family members. They may find it upsetting to talk about what will no doubt be a difficult future. "This is a taboo subject that some people don't want to talk about, but what you have to say is, 'We really need to talk about this. This is important to me. There is going to come a time when I can't tell you these things and I need you to know now so that you're not guessing later,'" Seal says.

Talk to your doctor about what may happen as your dementia progresses. Following that discussion, make some plans and share it with your loved ones. Where would you most like to be cared for? Do you want to stay home and have live-in care? Do you prefer a facility with around-the-clock care? Or would your choice be to go to a senior living center where you can live independently for as long as you can, but still have people there to check on you? Would you like to participate in Alzheimer's studies? Is there anyone in your family that you'd prefer not be your caregiver? If it's important to you, it's worth sharing.

Make Your Final Arrangements

It's tough to think about one's own passing but it's important to make your own final arrangements rather than leaving people to guess at what you would've wanted. Do you have any special funeral or burial arrangements that are important to you? Do you want to donate your organs? Would you like to donate your body for research? Do you prefer to be cremated? Talk to your family about your final wishes. In some states, you are permitted to designate in a written document the person who will have the right to control

the disposition of your remains. By taking the time to think through these issues and make your choices known in writing, you can help avoid family disputes.

Maximize Your Life

"It's important to remember a diagnosis of Alzheimer's does not mean your life is over," Seal says. Being diagnosed at early-stage allows you to make the most of the time you have before the disease progresses. Maybe you would like to travel or write a book. Or maybe you've had a lifelong dream of playing in a rock band. Whatever it is you have always wanted to do, use this as an opportunity to do it—and enjoy it! ●

Bernard A. Krooks is managing partner of the law firm Littman Krooks LLP (www.littmankrooks.com). A certified elder law attorney, he is a past president of the National Academy of Elder Law Attorneys and past president of the Special Needs Alliance.

Brain-Boosting Puzzles

“Use it or lose it.” The message is simple. If you don’t use your muscles, they will no longer be as effective as they should be. Of course, the brain is not a muscle; however, it has recently come to light that “mental workouts,” such as solving crosswords and other puzzles, can help ward off Alzheimer’s. In these pages, we offer a variety of different types of puzzles that will work out your various skills involving memory, deduction, and letter manipulation, and, we hope, also provide you with a ton of fun!

(Answers on page 29)

MATCH THESE

Can you match each fictional place to the writer who created it?

- | | |
|-------------------------------|---------------------|
| 1. _____ Lilliput | a. William Faulkner |
| 2. _____ Oceania | b. A.A. Milne |
| 3. _____ Emerald City | c. James Michener |
| 4. _____ Jabberwocky Wood | d. Lewis Carroll |
| 5. _____ Middle-earth | e. Jonathan Swift |
| 6. _____ Yoknapatawpha County | f. J.M. Barrie |
| 7. _____ Narnia | g. George Orwell |
| 8. _____ Bali Hai | h. Sir Thomas More |
| 9. _____ Neverland | i. J.R.R. Tolkien |
| 10. _____ Hundred-Acre Wood | j. James Hilton |
| 11. _____ Shangri-La | k. L. Frank Baum |
| 12. _____ Utopia | l. C.S. Lewis |

DROPLINE

Take the letters in the top half of each column below and distribute them in the blanks of the bottom half so that the letters read from left to right spell out a short quotation from H.L. Mencken. The black squares are the spaces between words. One letter has been dropped in place to start you off.

H	A	H	D	I	I	A	E	A	A	U	A	E	D	L	A	L	A	E
	X	N	I	S	S	H	L	H	E	W	D	U	L	M	L	M	R	N
	O	T	O	T	S	T	W	L	Y	R	Y	S	U	S	N		W	
	W							S		S							U	
	I																	

LEAPFROG

Here’s a list of two-word titles of ’60s TV series — one series for each number. The letters of the two words are in the correct order, but they overlap. All you have to do to find the terms is separate the letters.

Example: **CABSEENY** — **BEN CASEY**

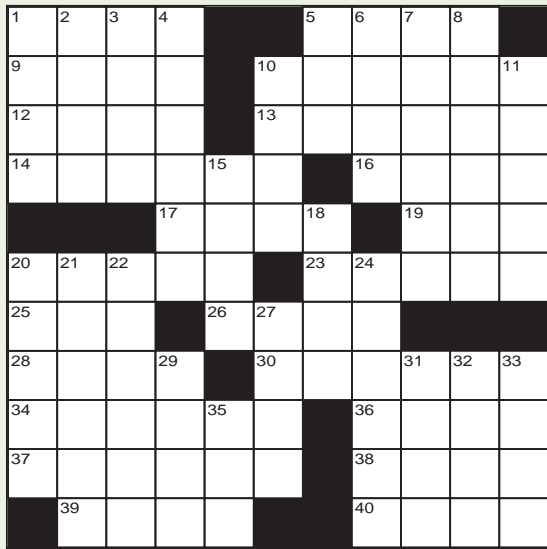
- | | |
|----------------------|-------|
| 1. MCEEDNITCEARL | _____ |
| 2. PEPYLTAOCEN | _____ |
| 3. MNCAHVLYES | _____ |
| 4. BLURAKEWS | _____ |
| 5. JPUENTCTITICOONAT | _____ |
| 6. PMAERSROYN | _____ |
| 7. IGISLLILGAANNSD | _____ |
| 8. IMPMOISSISSBILONE | _____ |
| 9. DBAONOINEEL | _____ |



•VISIT US AT KAPPAPUZZLES.COM•

(Answers on page 29)

We have provided two crosswords here to sharpen your puzzle skills. Start with the one on the left, which is the easier puzzle. In this one we have provided solving aids, such as the number of words in multi-word clues. The puzzle on the right is a medium-level puzzle and the number of words in the answers have been eliminated. The second puzzle is also a thematic puzzle: the title "Men of Rank" is a hint. Have fun testing your knowledge while doing something that's good for you!



Across

1. Self-defense method
5. Lad's partner
9. "Pequod" captain
10. Park bird
12. Bakery items
13. Broad street
14. Martin and Charlie
16. Misters
17. Home run hitter Sammy
19. Tenth month (abbr.)
20. John Philip _____
23. Golf warnings
25. Electrical unit
26. Pile
28. Pinches
30. Beaver State

34. Sing along (2 wds.)
36. Slangy refusal
37. Copland and Spelling
38. _____ the Red
39. Lester Holt's domain
40. Smell terrible
10. Football action
11. Birds' abodes
15. Ark man
18. Worship from _____
20. Skater Henie
21. Person from Columbus
22. Baseball "judge"
24. First game of the season

Down

1. Sharp thrusts
2. "No way, Jose!" (hyph.)
3. Copenhagen native
4. Become fixated
5. Actress Ullmann
6. Time periods
7. Prom attendee
8. Origin
27. Centuries and centuries
29. Winter wonderland need
31. Environmentalist Al
32. Mayberry lad
33. Vampire's target
35. Parts of ft.

Men of Rank

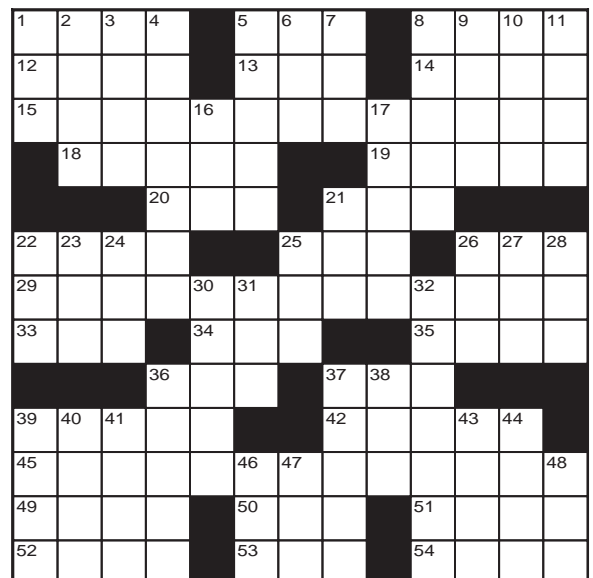
Across

1. Onetime Volvo competitor
5. Martini liquor
8. Against (prefix)
12. Barcelona beverage
13. Comedienne Charlotte _____
14. Reverse, for one
15. Role for Phil Silvers
18. Astronomer Carl
19. Comic Tim
20. Illustrations
21. Ballantine product
22. "Lad: _____"
25. City rails
26. Bride's answer
29. Role for George C. Scott
33. Raw mineral
34. 24-hour teller (abbr.)
35. On a cruise
36. Sporty Pontiac of the '60s
37. Josh
39. Politician Agnew

42. "Untouchable" Ness
45. Role for Harry Morgan
49. Boats like Noah's
50. "_____ whillikers!"
51. Take on employees
52. Navy chow
53. Cruet liquid
54. _____ were (so to speak)
21. High mountain
22. Gone by
23. The, in Berlin
24. Solitary number
25. Shade tree
26. "_____ Magic"
27. Mama deer
28. "Snakes _____ Plane"
30. Boca _____, Florida
31. From _____ Z
32. "Bewitched" baby

Down

1. Scand. airline
2. Middle _____
3. Subtle glow
4. Plane's _____ compartment
5. Lee's foe
6. Author Fleming
7. Tennis necessity
8. Nimble
9. Singer Carter
10. Accept
11. Nutrient in red meat
16. Lobe's locale
17. Light wood
36. Coarse
37. Ward off
38. Union group (abbr.)
39. Shell game
40. Tiny opening
41. Sorts
43. Elevator pioneer
44. Hatcher or Garr
46. Id's partner
47. Luau memento
48. Go on a pension (abbr.)



BRAIN-BOOSTING PUZZLES

HIDDEN-MESSAGE WORD-FIND™

All the words in the list, which are about exercise and physical activity, can be found in the letter grid reading across, up and down, and diagonally. When you have found them all, read the leftover letters to discover an apt quote from Robert M. Hutchins.

You are looking for a 58-letter phrase.

- BADMINTON
- BOWLING
- CANOEING
- DANCING
- GOLF
- HANDBALL
- JOGGING
- JUMPING ROPE
- LIFTING WEIGHTS
- PILATES
- SIT-UPS
- SKATING
- SOCCER
- SOFTBALL
- SWIMMING
- TAE KWAN DO
- TENNIS
- TREADMILL
- VOLLEYBALL
- WALKING

S W H E N I F S E B E S L G
 T L G N I E O N A C P I W N
 H K E E X C E D O U T R A I
 G L C L C G M D T I R S L T
 I L I E L I N I N G E L K A
 E A R I N A S I J U A S I K
 W B T T W L B E M B D I N S
 G D O K F G E Y T M M D G S
 N N E O W L N F E A I N U I
 I A N T I L O I T L L W H N
 T H E F E S E G G L L I S N
 F I N J U M P I N G R O P E
 I G G O E G N I L W O B V T
 L G N I C N A D S A W J A Y

SUDOKU

To complete the puzzle below, fill in the squares so that each digit 1 through 9 will appear exactly once in each row, in each column, and in each enclosed nine-unit block.

3	4				5			
	5		2		8			
			4			8		3
	6		3	9			5	
	9						6	
	7			6	1		4	
2		5			7			
			6		4		1	
		6				2		9

Match These

1e, 2g, 3k, 4d, 5i, 6a, 7l, 8c, 9f, 10b, 11j, 12h.

Droplines

It is the dull man who is always sure, and the sure man who is always dull.

Leapfrog

- 1. Medical Center; 2. Peyton Place;
- 3. McHale's Navy; 4. Burke's Law;
- 5. Petticoat Junction; 6. Perry Mason;
- 7. Gilligan's Island; 8. Mission: Impossible; 9. Daniel Boone.

Hidden Message

When I feel like exercising, I just lie down until the feeling goes away.

Crossword 1

J	U	D	O			L	A	S	S	
A	H	A	B			P	I	G	E	O
B	U	N	S			A	V	E	N	U
S	H	E	E	N	S		S	I	R	S
			S	O	S	A		O	C	T
S	O	U	S	A		F	O	R	E	S
O	H	M		H	E	A	P			
N	I	P	S		O	R	E	G	O	N
J	O	I	N	I	N		N	O	P	E
A	A	R	O	N	S		E	R	I	C
N	E	W	S			R	E	E	K	

Crossword 2

S	A	A	B		G	I	N		A	N	T	I
A	G	U	A		R	A	E		G	E	A	R
S	E	R	G	E	A	N	T		B	I	L	K
	S	A	G	A	N				A	L	L	E
			A	R	T				A	L	E	
A	D	O	G		E	L	S		I	D	O	
G	E	N	E	R	A	L	P	A	T	T	O	N
O	R	E		A	T	M		A	S	E	A	
			G	T	O		R	I	B			
S	P	I	R	O		E	L	I	O	T		
C	O	L	O	N	E	L	P	O	T	T	E	R
A	R	K	S		G	E	E		H	I	R	E
M	E	S	S		O	I	L		A	S	I	T

Word-Find

S	W	H	E	N	I	F	S	E	B	E	S	L	G
T	L	C	N	T	E	O	N	A	O	P	I	W	N
H	K	E	X	C	E	D	O	T	R	A	I	T	
L	C	C	C	G	M	D	T	I	R	S	D		
G	I	L	I	E	L	I	N	I	N	G	E	L	K
A	R	I	N	A	S	I	J	U	A	S	I	K	
W	B	T	T	W	L	B	E	M	S	D	I	N	S
G	D	O	K	F	E	V	T	M	D	G	S		
N	E	O	W	L	N	F	E	A	I	N	U	I	
I	A	N	T	I	L	O	I	T	L	L	W	H	N
T	H	E	F	E	S	E	G	G	L	U	I	S	N
F	I	N	J	U	M	P	I	N	G	R	O	P	E
I	G	G	O	E	C	N	I	L	W	O	B	V	T
G	N	I	C	N	A	D	S	A	W	A	Y		

Sudoku

3	8	4	1	7	9	5	2	6
6	5	7	2	3	8	4	9	1
9	2	1	4	5	6	8	7	3
4	6	8	3	9	2	1	5	7
1	9	2	7	4	5	3	6	8
5	7	3	8	6	1	9	4	2
2	1	5	9	8	7	6	3	4
8	3	9	6	2	4	7	1	5
7	4	6	5	1	3	2	8	9

YOU CAN MAKE A DIFFERENCE!

Now here is how you can do your part to support the cause to find a cure!

Subscribe to one of these magazines, and a percentage of the proceeds will go to the Fisher Center for Alzheimer's Research Foundation.

Send this money-saving coupon and payment to:

KAPPA PUBLISHING GROUP, INC. • PO Box 433133 • Palm Coast, FL 32143-3133

- BLUE RIBBON CROSSWORDS SPECIAL (BXS)** \$23.90 (6 ISSUES) \$41.90 (12 ISSUES)
- BLUE RIBBON SUDOKU PUZZLES (BRS)** \$38.30 (12 ISSUES) \$63.00 (24 ISSUES)

NAME _____

ADDRESS _____ APT. _____

CITY _____ STATE _____ ZIP _____

E-MAIL ADDRESS: _____

VISA MASTERCARD # _____

Expiration date: ____ / ____ Signature _____

Check or Money order (Payable to KAPPA PUBLISHING GROUP, INC.)

TOTAL PAYMENT ENCLOSED
\$ _____

CANADIAN FUNDS ACCEPTED

GIFT **THIS IS A GIFT FROM:** (complete below if this is a gift subscription)

NAME _____

ADDRESS _____ APT. _____

CITY _____ STATE _____ ZIP _____

A5CCAR

PLEASE ALLOW 8 WEEKS FOR SUBSCRIPTION TO BEGIN. *CANADIAN FUNDS ACCEPTED; HOWEVER, OUTSIDE THE U.S. ADD POSTAGE: \$11.10-6 ISSUES; \$22.20-12 ISSUES; \$44.40-24 ISSUES. OUTSIDE U.S. AND CANADA, PAY WITH CHECK DRAWN ON A U.S. BANK OR A MONEY ORDER ISSUED IN U.S. FUNDS. OFFER EXPIRES 12/31/17.

Let's Get PHYSICAL

Here are six benefits of incorporating low-impact exercise into your routine.

By Trisha McBride Ferguson

Physical activity is one of the easiest and most valuable tools Americans have for improving their well-being. Together with a balanced diet, a low-impact exercise program can promote good health, including good mental health, and reduce the risk of chronic diseases. Here's a look at six key benefits of regular physical activity:

- 1. It works at any age.** Health benefits abound for children and adolescents, young and middle-aged adults, and older adults.
- 2. It works nearly anywhere.** You can exercise indoors or outside. In colder weather, indoors is probably preferable. Consider joining a fitness center or exercise club to get physical activity in during the colder months.
- 3. Exercise benefits every population.** Regardless of race, ethnicity or physical ability, the benefits of exercise far outweigh those of a sedentary lifestyle.
- 4. Some is better than none.** While health experts recommend at least 30 minutes of exercise a day and at least 150 minutes a week of moderate-intensity physical activity, any amount is better than inactivity. Even as little as 60 minutes a week of moderate-intensity aerobic physical activity offers health benefits. And, as you increase the intensity, frequency and/or duration of your exercise, you will realize additional advantages.
- 5. You can start small.** If you don't currently have a regular exercise routine, you can begin with an activity as simple as a brisk walk. Start with a short walk and gradually increase your pace and the duration of your walk as you are able, working your way up to at least 30 minutes a day.

Low-Impact vs. High-Impact

If you don't have a regular exercise program, getting started may seem overwhelming. A great place to begin is with low-impact aerobic activities. Consider brisk walking, swimming, yoga, rowing, bicycling and spin classes, and using machines like the elliptical trainer. These raise the heart rate, yet place less stress on the joints than high-impact aerobic activities—which typically include more jolting motions. Examples of high-impact aerobic activities are running, gymnastics, jumping rope, plyometrics and kick boxing.

During low-impact aerobic activity, at least one or both feet are on the floor at all times, reducing the impact on the musculoskeletal system.

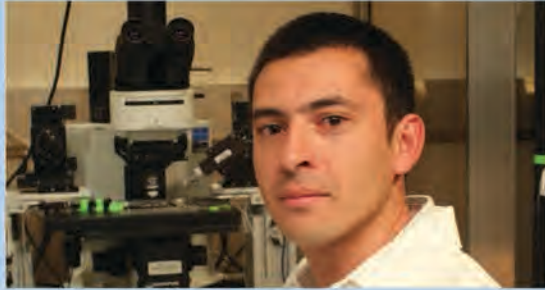
Low-impact activities are easier for fitness novices and people with physical limitations or injuries. Yet low-impact does not have to mean low-intensity. You can achieve a medium- to high-intensity workout with low-impact aerobic exercises. Aim to work hard enough that it produces a noticeable increase in your breathing and heart rate. Finally, be sure to incorporate an adequate warm-up and cool-down period at the start and end of your session.

- 6. Aerobic exercise works.** Strive to incorporate as much aerobic activity as your current fitness level and abilities allow. Aerobic activities are those that require moving the large muscles of the body for a sustained period, and include brisk walking, bicycling, dancing, swimming, yoga, tennis and many sports. The resulting increase in a person's heartbeat results in the strengthening of the heart and cardiovascular system. ●



Fisher Center Scientist Spotlight

Due to the outstanding work of Fisher Center's world-renowned scientists, we are getting closer to finding a cure!



Dr. Victor Bustos

Senior Research Associate at the Fisher Center for Alzheimer's Research at The Rockefeller University

Hometown:

Victor was born in San Carlos, a small city in the south of Chile, surrounded by wheat plantations and volcanoes.

Education:

Victor obtained his Bachelor's degree in Biochemistry at the Pontificia Universidad Catolica de Chile. He then obtained his PhD in Biomedicine at the Universidad de Chile. After a postdoctorate at the Venetian Institute for Molecular Medicine in Italy, Victor moved to New York to pursue his postdoctorate with Nobel Laureate, Dr. Greengard at the Fisher Center for Alzheimer's Research Foundation lab at The Rockefeller University.

Fun Fact:

Victor has been interested in science since he was seven years old. His first lab was a reconditioned chicken barn. There he and his friend were mixing simple household items such as vinegar, baking powder, charcoal and fertilizers in order to simulate chemical reactions. They even tried to build an incubator to grow bacterial cells which eventually overgrew and contaminated the whole neighborhood with a unique scent.

Research Discoveries:

Dr. Bustos studies the regulation of an enzymatic complex called gamma-secretase, which cleaves the Amyloid Precursor Protein in order to produce abeta peptide. Dr. Bustos discovered a chemical modification in one subunit of the complex, called Presenilin 1.

Through his studies, Dr. Bustos found that a transgenic mouse line developed at the Fisher Center lab that lacks this chemical modification on Presenilin 1 accumulates thirty times more abeta peptide than wild type mice.

In experiments with cell lines, Dr. Bustos discovered that the lack of this chemical modification on Presenilin 1 induces the accumulation of abeta by reducing its degradation and affecting a cellular process known as autophagy.

Dr. Bustos believes that this chemical modification on Presenilin 1 plays a role on the development of sporadic Alzheimer's disease and its regulation is a potential therapeutic target for reducing abeta levels and the prevention of Alzheimer's disease.

We want to thank Dr. Bustos and all of our scientists who work hard every day in the quest to find a cure.



Zachary & Elizabeth M. Fisher Center
for Alzheimer's Research Foundation
110 East 42nd St, 16th Floor
New York, NY 10017

Fisher Center invites you to purchase
our new book about Alzheimer's

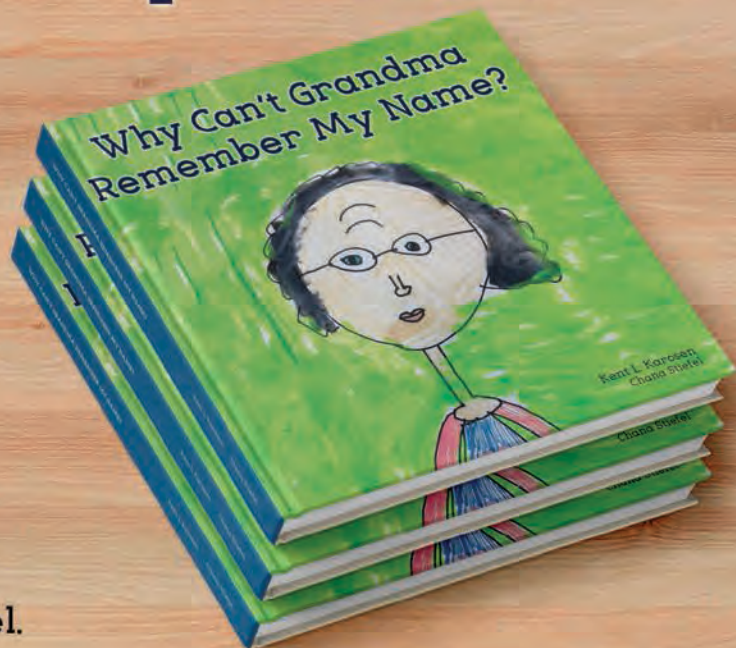
NOW AVAILABLE



Why Can't Grandma Remember My Name?

A book explaining Alzheimer's disease using artwork created by children juxtaposed with art created by Alzheimer's patients, demonstrating the power of art therapy for all ages.

The book is written by the Foundation's President, Kent L. Karosen, and co-author Chana Stiefel.



Order your copy
Today by visiting

www.ALZinfo.org/book