

New Thinking

ABOUT THINKING

A Publication by Cleveland Clinic Lou Ruvo Center for Brain Health

Fall 2014
keepmemoryalive.org
clevelandclinic.org/brainhealth

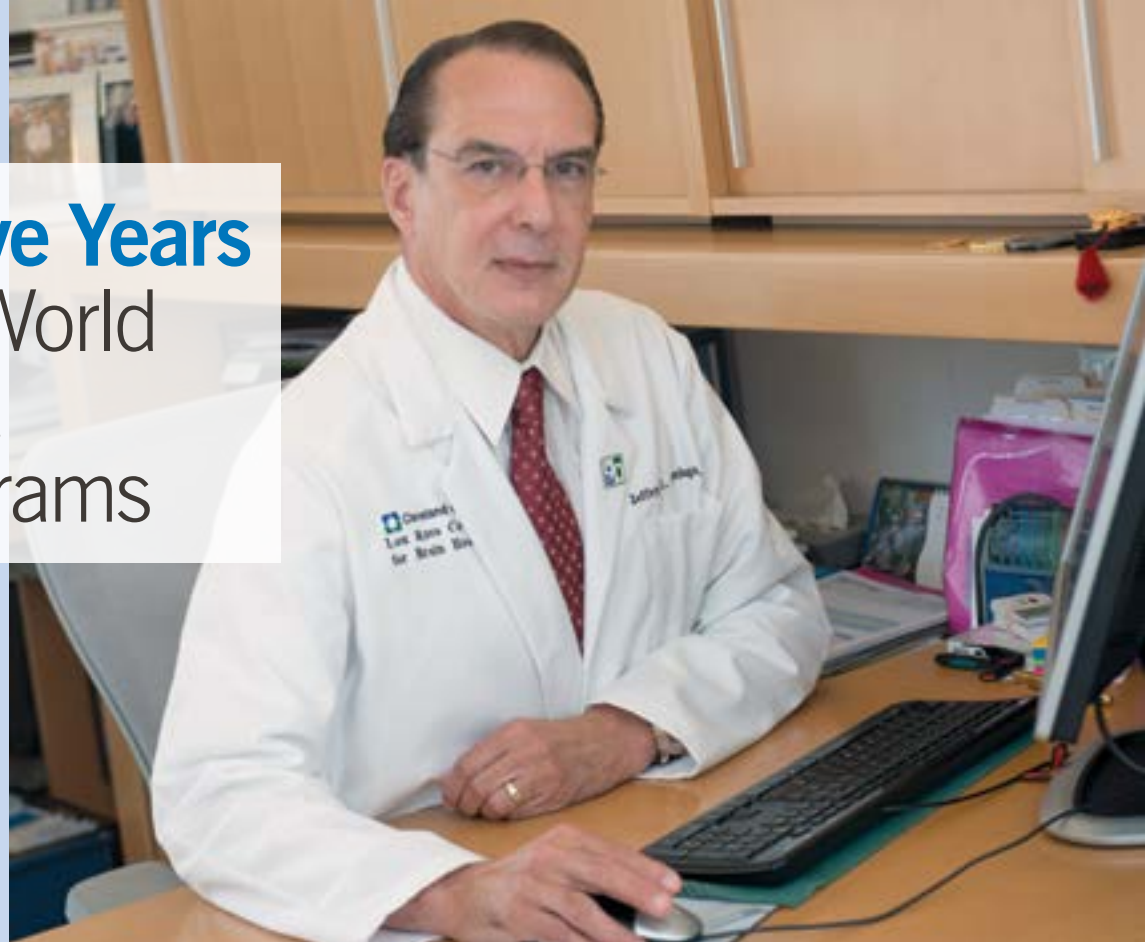


Celebrating Five Years of Expanding World Class Care and Research Programs

Cleveland Clinic Lou Ruvo Center for Brain Health continues to advance its programs in a remarkable way. New activities are emerging in the Parkinson's Disease and Movement Disorders program, Multiple Sclerosis program and the Alzheimer's Disease and Memory Disorders programs.

Kerry Simon — Las Vegas' Iron Chef — has developed a neurological disorder called multiple system atrophy (MSA). Determined to fight this disabling Parkinson's-like condition, Kerry has aligned himself with the Lou Ruvo Center for Brain Health to expand research and services for MSA patients. The Parkinson's Disease and Movement Disorders program has initiated a comprehensive regional MSA clinic to address the complexity of this illness. In addition, funds raised by Kerry and his colleagues are supporting an MSA Research Roadmap Conference to be held at the Lou Ruvo Center for Brain Health in November. Francis Collins, PhD, Director of the National Institutes of Health (NIH), has agreed to provide a keynote address. MSA scientists from around the world will collaborate to produce a roadmap for critical research areas, prioritize them, and promote means of advancing the research.

Building upon the \$1.35 million grant from the Conrad N. Hilton Foundation, our MS program continues to grow. The National Multiple Sclerosis Society has certified the Lou Ruvo Center for Brain Health as a "Partner in MS Care," and we are the only center in the state of Nevada with this stamp of approval.



The Lou Ruvo Center for Brain Health has hired scientist Dietmar Cordes, PhD. Dr. Cordes is a medical physicist and will extend our technologically advanced brain imaging program into new areas of brain function discovery. Dr. Cordes is an expert in magnetic resonance imaging (MRI) and will work with our program leaders to enhance understanding of neurological diseases and to explore novel applications of MRI to better understand brain function and response to treatment.

The clinical trials program is taking a major step forward with the establishment of the Cleveland Clinic Keep Memory Alive Brain Health Registry. This registry will be primarily an online tool that will provide those visiting the site with brain health information and will collect information on participants to construct a database of "trial-ready" populations who can be contacted when new therapies are being studied at the Lou Ruvo Center for Brain Health. We will offer much more information about the registry in the next issue of *New Thinking*, but in the interim we encourage you to contact us

at 855.LOU.RUVO or brainhealth@ccf.org to learn more about our clinical trials, some of which are profiled in this issue.

As we celebrate our 5th year anniversary we can say with pride that the Lou Ruvo Center for Brain Health has made progress but not yet hit our stride. This is an exciting time with many new programs and initiatives being made available to our patients and to the citizens of Las Vegas.

We continue to press ahead to find new treatments and cures for brain disorders.

Jeffrey L. Cummings, MD, ScD

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New Thinking About Thinking

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Cleveland Clinic Lou Ruvo Center for Brain Health

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About the cover:

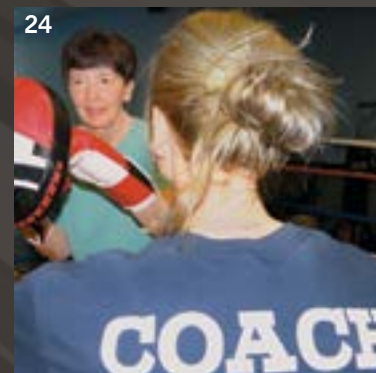
Challenger, the Free-Flying National Anthem Eagle

Raised by humans and named in honor of the crew of the space shuttle, Challenger has been making educational appearances throughout the country since 1993. The first bald eagle trained to free-fly into major league sports stadiums during the presentation of the National Anthem, during his visit to Cleveland Clinic Lou Ruvo Center for Brain Health, Challenger did a fly-by of our logo.

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A Mission of the Heart and Mind: Celebrating our Fifth Anniversary with all of Las Vegas

When son, Larry Ruvo, set about to honor father Lou's memory by creating a facility that would provide better treatment, research and no-cost social services for families managing a loved one's degenerative brain disease, there were doubters. But this man on a mission of the heart and mind couldn't be stopped.

"Few have the courage to force a challenge that makes a difference," say Las Vegas Mayor Carolyn Goodman and Former Mayor Oscar Goodman. "Single-handedly, Larry Ruvo has done that by paving the path to cure dreaded Alzheimer's."

In June 2014, as Cleveland Clinic Lou Ruvo Center for Brain Health approached its fifth anniversary, its director, Jeffrey Cummings, MD, ScD, was quoted in the *Las Vegas Review-Journal* saying, "Las Vegas can be really proud of the medical care and research activities that are going on here.

They are competitive with any Alzheimer's, Parkinson's and multiple sclerosis program in the country."

Dr. Cummings completed his commentary in the *Review-Journal* by outlining his roadmap for the Lou Ruvo Center for Brain Health's future: "We have drugs that are promising even though none of them have completely proven yet to either reverse or cure the disease. There could be a breakthrough tomorrow or a breakthrough in 10 years. You just keep working toward meaningful therapy and eventually we'll get there."



Dr. Cummings with Keep Memory Alive Vice Chairman Camille Ruvo and Chairman and Founder Larry Ruvo



Jeffrey Cummings, MD, ScD, Larry Ruvo, Mike Modic, MD, and Mayor Oscar Goodman toast the center's grand opening



Mayor Oscar Goodman and Keep Memory Alive Chairman and Founder Larry Ruvo welcome the Lou Ruvo Center for Brain Health's first patient, Randy Capurro, in July 2009

Inspired?

We encourage you to go online to keepmemoryalive.org/donate or contact the Philanthropy Institute at 702.331.7052.

Back row, L to R- Doctors Gabriel Léger, Ryan Walsh, Charles Bernick, Jeffrey Cummings, Justin Miller and Dylan Wint
 Front row, L to R- Doctors Donna Munic-Miller, Kate Zhong, Le Hua and Sarah Banks



2009 – 2014: Celebrating 5 Years of World Class Care

We treated our first patient on July 13, 2009. In just five years, the Lou Ruvo Center for Brain Health has:

- Provided no-cost social services support to more than 3,500 individuals who have made more than 18,000 visits to our patient and caregiver social service programs
- Provided more than 55,000 patient appointments with our medical providers
- Built one of the largest Alzheimer’s disease clinical trials programs in the country with more than 30 trials
- Provided more than 17,000 hours of education to students spanning K-12 to medical residents
- Expanded beyond our original focus on Alzheimer’s to attract specialty-trained physician staff in Parkinson’s, Huntington’s, frontotemporal dementia, multiple system atrophy and multiple sclerosis
- Opened the only Huntington’s Disease Comprehensive Clinic in Nevada
- Received the “Partners in Care” designation from the National Multiple Sclerosis Society and expanded our MS program with a \$1.35 million grant from the Conrad N. Hilton Foundation
- Founded a Retired Athletes Clinic, providing treatment for professional athletes suffering from repeated head trauma
- Enrolled more than 450 professional fighters in a research study assessing the longitudinal impact of head trauma and secured funding from top boxing and mixed martial arts promoters
- Established a Fellowship in Behavioral Neurology and Neuropsychiatry accredited by the United Council of Neurologic Subspecialties; the first fellow started in July 2014
- Installed a PET imaging machine for advanced brain imaging including a recently approved Alzheimer’s scan
- Hosted Regina M. Benjamin, MD, MBA, Surgeon General of the U.S., who advocated for increasing public health awareness of head trauma
- Secured National Institutes of Health Director Francis Collins, MD, PhD, to keynote a November 2014 meeting at which we’re convening worldwide thought leaders to develop a roadmap for research into the improved understanding and treatment of multiple system atrophy

Center Timeline: *Reviewing our History*



February 1995

Larry Ruvo hosts a memorial dinner in his father's honor. Friends contribute unsolicited funds. The dinner is the first annual celebration of Lou Ruvo's life, ultimately becoming the Power of Love™ gala and raising funds for Keep Memory Alive.



Photo by: © Erik Kabik / Retina / erikkabik.com

May 21, 2010

Keep Memory Alive Event Center opens in the Gehry-designed building. The center is dedicated to creating memories for individuals who host and attend activities in the space. Revenue supports the organization's commitment to eradicating memory disorders.



February 18, 1994
Lou Ruvo dies from Alzheimer's disease.



February 2006

Larry Ruvo engages renowned architect Frank Gehry to design a medical facility to treat neurocognitive disorders in Nevada.

February 9, 2010

President George W. Bush visits the Lou Ruvo Center for Brain Health.



May 1 & 7, 2011

Larry King's CNN special, "Alzheimer's: The Unthinkable Epidemic," airs in 212 countries. The special features the Lou Ruvo Center for Brain Health.

1994 1995 2006 2007 2008 2009 2010 2011



February 17, 2009

Keep Memory Alive announces the selection of Cleveland Clinic as its medical partner for the clinical programs at the Lou Ruvo Center for Brain Health. Delos "Toby" Cosgrove, MD, is CEO and Michael Modic, MD, FACR, is Chairman, Neurological Institute.

July 2009
Associate Medical Director Charles Bernick, MD, MPH, becomes the first physician at the Las Vegas location.



July 2009

The Lou Ruvo Center for Brain Health in Las Vegas launches its Patient and Family Services.



2010

Award of a grant from The Lincy Foundation facilitates integration of an education program with Dylan Wint, MD.



July 1, 2010

Jeffrey Cummings, MD, ScD, and Kate Zhong, MD, join the Lou Ruvo Center for Brain Health as Director and Senior Director of Research, respectively. Translational neuroscience research and clinical trials programs expand.



July 13, 2009

Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas treats its first patient. Clinical trials are integrated with patient care and caregiver programs.

July 11, 2011

New Parkinson's disease and multiple sclerosis programs at the Lou Ruvo Center for Brain Health are announced. Clinical trials complement patient care in all therapeutic areas.



Ryan Walsh, MD, PhD

July 2012

The Lou Ruvo Center for Brain Health installs a PET imaging machine for use in brain scanning.



August 2, 2011

President Bill Clinton visits the Lou Ruvo Center for Brain Health.



September 30, 2012

The Lou Ruvo Center for Brain Health convenes national experts to discuss the long-term effects of head trauma in athletes and soldiers, accompanied by a keynote address from Regina M. Benjamin, MD, MBA, U.S. Surgeon General.

September, 2013

The Lou Ruvo Center for Brain Health neuropsychology program expands with the addition of Justin Miller, PhD.



Justin Miller, MD

November, 13, 2013

Cleveland Clinic teams up with the National Football League Players Association to provide brain health evaluations of retired players at the Lou Ruvo Center for Brain Health.



February 4, 2014

Golden Boy Promotions, Top Rank Boxing, Ultimate Fighting Championships and Viacom's Bellator MMA and GLORY kickboxing collaboratively contribute \$600,000 to support the Lou Ruvo Center for Brain Health's Professional Fighters Brain Health Study, which has 450 participants and seeks a total of 625 fighters



2012

2013

2014

August 31, 2011

The Lou Ruvo Center for Brain Health announces its new physical therapy program, which aims to improve balance, flexibility, strength and quality of life for patients.



October 2011

New Frontotemporal Dementia (FTD) program started at the Lou Ruvo Center for Brain Health's Las Vegas location.



Sarah Banks, PhD



Gabriel Léger, MD



August 1, 2013

Cleveland Clinic Mellen Program for MS at the Lou Ruvo Center for Brain Health in Las Vegas expands further with the addition of Le Hua, MD



Le Hua, MD

December 2013

Under the direction of Kate Zhong, MD, the Lou Ruvo Center for Brain Health expands the program to over 30 clinical trials.

June 2014
Building upon a \$1.35 million grant from the Conrad Hilton Foundation, the National Multiple Sclerosis Society designates the Lou Ruvo Center for Brain Health as a "Partner in Care" and starts referring patients.



July 2014
Once again, *U.S. News & World Report* names Cleveland Clinic one of the nation's top hospitals — #4 this year — and the hospital's Neurology/Neurosurgery program is ranked #6 in the nation.



July 2014

Since opening in July 2009, Cleveland Clinic Lou Ruvo Center for Brain Health has had 55,000 patient visits and now sees approximately 225 new patients monthly.



Reveling in the Power of Love



On April 26, some of the biggest names in the entertainment industry honored Gloria and Emilio Estefan at the 18th annual Power of Love™ gala at the MGM Grand Hotel & Casino. The star-studded event raised funds for Cleveland Clinic Lou Ruvo Center for Brain Health and its fight against brain diseases.

Celebrities abound

Highlights from the night included a special performance from Gloria Estefan, Rita Moreno singing from her own as well as Ms. Estefan's songbook, and impassioned tributes from Ricky Martin, Queen Latifah and Jordin Sparks. Guests were treated to a memorable duet by Ms. Estefan and Carole King and a debut performance from Emilio Estefan's newest artist, Fantine. Jon Secada joined Ms. Estefan and the Las Vegas Mass Choir on stage and closed the evening by singing a special rendition of "Coming out of the Dark." Celebrity supporters who also attended the event included film and TV

luminaries Quincy Jones, Andy Garcia, Dermot Mulroney, Christopher Meloni and Steve Schirripa.

A tradition of incomparable food and wine for an incomparable cause

The Power of Love gala showcased a celebrity chef-packed dinner prepared by superstar chefs Wolfgang Puck and Masaharu Morimoto, and cocktail hour featuring Dom Pérignon. Gala guests enjoyed a wonderful evening of entertainment and fine dining, knowing their support raised millions of dollars for the Lou Ruvo Center for Brain Health.



L to R - Gloria Estefan, Toby Cosgrove, MD, CEO of Cleveland Clinic, Quincy Jones and Emilio Estefan



L to R - Andrea and Steve Wynn with Carole King



Chef Morimoto



Bernie Yuman

Interested in our events?

You may purchase tickets online at keepmemoryalive.org for the gala and other Keep Memory Alive events throughout the year. Please contact us at any time at 702.263.9797 or events@keepmemoryalive.org for more information or to join our monthly events email update.

Raising funds for Cleveland Clinic Lou Ruvo Center for Brain Health and its fight against Alzheimer's, Huntington's, Parkinson's, frontotemporal dementia, multiple system atrophy and multiple sclerosis



L to R - Standing:
Todd duBoef,
Dena duBoef-Roth,
Heather duBoef,
Lovee Arum,
Parvin Jacobs,
Gelila Puck and
Wolfgang Puck

Seated: Miriam Adelson,
Sheldon Adelson and
Bob Arum

Bill Edwards
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APRIL 26, 2014

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OF LOVE™



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*A SPECIAL THANK YOU TO
FRANK AMADEO AND
BERNIE YUMAN*

*THANK YOU TO CHEFS
MASAHARU MORIMOTO
AND WOLFGANG PUCK FOR
DELIGHTFUL CUISINE*

Multiple System Atrophy: Looking Forward

Very little is known about multiple system atrophy (MSA). We don't know how it starts, how it progresses or how to diagnose and treat this extraordinarily debilitating disease. However, MSA has many similarities with other neurodegenerative diseases that Cleveland Clinic Lou Ruvo Center for Brain Health is treating and researching.

MSA is a neurodegenerative disease affecting the brain that shares features with Parkinson's disease, but is more severe, more rapidly progressive and has no established treatment. Symptoms involve movement, coordination and speech. MSA is rare, affecting approximately four individuals in 100,000, but the impact on those it touches is devastating.

Iron Chef Kerry Simon is one of those individuals. A lifelong runner and owner of a culinary empire consisting of six restaurants, Kerry says, "Now I can't walk, sleep or drive a car. MSA has completely changed my health. But it hasn't changed my optimism."

Since receiving a diagnosis of MSA at the Lou Ruvo Center for Brain Health, Kerry has dedicated himself to finding a cure. That process begins with raising awareness and funding research into this little-known disease. He has started his efforts in Las Vegas, his culinary and medical home. Home is where the help is.

"The knowledge and accessibility of the medical team at the Lou Ruvo Center for Brain Health is incredible," says Kerry. "They've counseled me along the way, and through physical therapy, they've literally forced me to keep moving. They've inspired hope."



L to R - Jeffrey Cummings, MD, ScD, Gina Hines, Kerry Simon and Jen Nash, PT, DPT, NCS, CEEAA, celebrate Kerry's place on our honor wall

World class care in Las Vegas

Now, Kerry says, MSA needs a team of fundraisers. He kick-started that team himself, chairing a fundraising event held at the Keep Memory Alive Event Center on February 27. The funds raised that evening go toward three critical programs:

Kerry Simon Comprehensive Clinic for MSA

Broadening patient services to include occupational therapy, speech pathology and management of autonomic dysfunction, we also plan to expand relationships with qualified local providers for symptoms we cannot treat at the Lou Ruvo Center for Brain Health.

Neuroimaging program

People who show symptoms of MSA need early, accurate diagnosis, which can help improve their treatment options. MRI and PET imaging are among the best diagnostic tools available. Building on the brain imaging technology at the Lou Ruvo Center for Brain Health, we are well positioned to pursue imaging research to home in on the diagnosis and treatment of MSA.

MSA Research Roadmap Conference

In November, the center is convening worldwide experts in MSA to construct a roadmap for critically important research into improved understanding and treatment of the disease. The meeting is co-hosted with the National Institutes of Health (NIH) and features a keynote address by NIH Director Francis Collins.

Worldwide leadership: beginning November 2014

With the Kerry Simon Comprehensive Clinic and the Neuroimaging Program under development, the Lou Ruvo Center for Brain Health is poised to develop and direct a new model worldwide for engaging the MSA research and clinical community in better understanding and treating MSA.

The all-star kitchen cast



“A greater understanding of MSA has the real possibility to translate into an acceleration of research and treatment of both MSA and related diseases, such as Parkinson’s and Alzheimer’s,” says Ryan R. Walsh, MD, PhD, Director, Parkinson’s Disease and Movement Disorders Program.

With your help, we’re fighting MSA

Friends poured out of Kerry’s Rolodex® to attend his February fundraiser. As reported by John Katsilometes of the Las Vegas Sun, “We spent several minutes spot-checking all of the famous folks in the room, most of them genuine rock stars, at the Kerry Simon Says Fight MSA auction, culinary event and

rock show.” They included emcee Bill Murray who worked alongside Kerry at a Little Caesars when the two were teenagers in Chicago, Alice Cooper, Mayor Carolyn Goodman, J. D. Fortune, Kip Winger, Lisa Loeb, Matt Sorum, Sammy Hagar, Slash, Todd Rundgren and Vince Neil.

Rock stars of the culinary world cooked in support of Kerry, including his longtime business partner Elizabeth Blau and her husband, chef Kim Canteenwalla; Charlie Palmer, Daniel Boulud, Jean-Jeorges Vongerichten, Megan Romano, Michael Mina and Rick Moonen.



The all-star music cast

**Kerry Simon Says ...
Take the next step. Fight MSA.**

Help Kerry create a home for research and care of MSA, right here in Las Vegas. Please contribute online at keepmemoryalive.org/KerrySimon or contact the development team at 702.331.7052 or hinesg@ccf.org. One hundred percent of your contribution will be dedicated to expanding the Lou Ruvo Center for Brain Health’s MSA program.

To schedule an appointment with a neurologist, please call 702.483.6000. To learn more about our center, please visit clevelandclinic.org/brainhealth

KEEP MEMORY ALIVE

Supporting the Mission of the Cleveland Clinic Lou Ruvo Center for Brain Health

ALZHEIMER | HUNTINGTON | PARKINSON | ALS | MULTIPLE SCLEROSIS

and



Cleveland Clinic
Lou Ruvo Center for Brain Health

INVITE YOU TO SPEND AN EVENING WITH

MB
michael bublé

UP CLOSE AND PERSONAL

SATURDAY, OCTOBER 11, 2014

7:00 PM - Cocktails

8:00 PM - Dinner

9:00 PM - Performance

Please join us for an intimate and ultra-exclusive evening as we welcome four-time Grammy Award winner Michael Bublé to the Keep Memory Alive Event Center for a private performance. In true Las Vegas style, there will be first-rate cuisine prepared by renowned chef Scott Conant, the finest wines from around the world, champagne from Dom Pérignon, and exotic cocktails and spirits.

Dress code: cocktail attire (gentlemen, no ties)
Space is limited to 300 guests

soloist: \$5,000
single seat

ensemble sponsorship: \$50,000
full table sponsorship, includes preferred seating for 10
and recognition throughout the event

Reserve your seat(s) before 10/01/14
by contacting special events at:

702.701.7894

specialevents@keepmemoryalive.org

For additional information
or to register online, please visit:

Keepmemoryalive.org/buble

Benefiting Keep Memory Alive
and Cleveland Clinic Lou Ruvo Center for Brain Health

Keep Memory Alive is a nonprofit organization formed in the state of Nevada to increase awareness of and raise funds for the research, management, and treatment of brain disorders. Contributions to Keep Memory Alive may be tax-deductible pursuant to Internal Revenue Code section 170®



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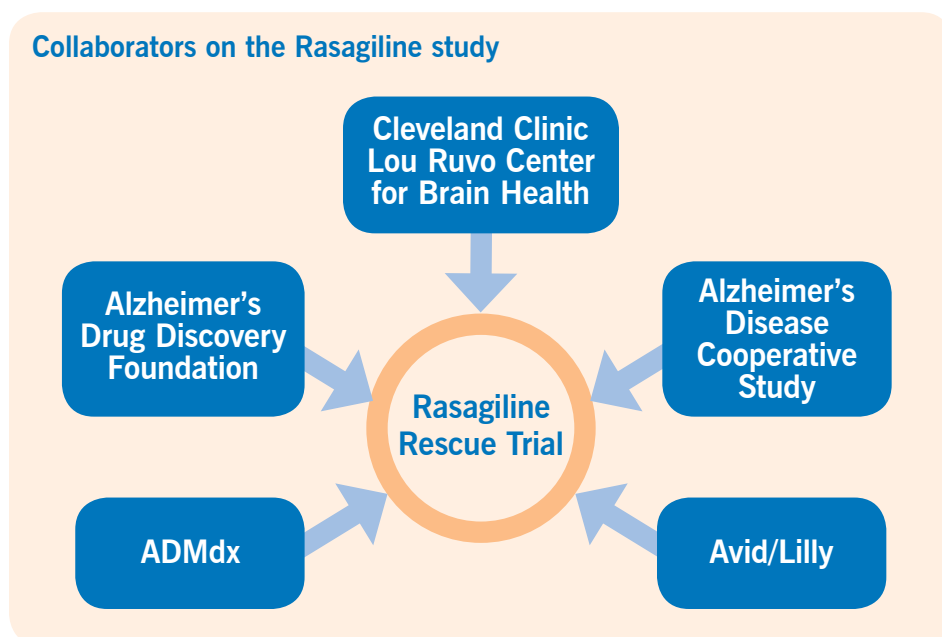
By Jeffrey Cummings, MD, ScD

Cleveland Clinic Lou Ruvo Center for Brain Health has been funded by the Alzheimer's Drug Discovery Foundation (ADDF) to conduct a study of Rasagiline Rescue (R2) in Alzheimer's disease (AD).

Rasagiline is a repurposed drug that is already approved for the treatment of Parkinson's disease. It has been shown to improve motor symptoms and slow disease progression. In studies of Parkinson's disease patients, it improved memory. Aspects of the drug suggest that it should be of benefit in AD, and this hypothesis will be tested in the R2 trial at the Lou Ruvo Center for Brain Health.

The ADDF is a remarkable enterprise, headquartered in New York City and founded by Co-Chairmen Leonard and Ronald Lauder of the Estée Lauder cosmetics family. The organization is led by Howard Fillit, MD, an accomplished geriatrician and neuroscientist. Dr. Fillit directs the grant portfolio of the ADDF, which has funded many AD drug discovery efforts and clinical trials.

The R2 trial brings together several leading organizations including Cleveland Clinic Lou Ruvo Center for Brain Health, ADDF, Alzheimer's Disease Cooperative Study (ADCS), ADMdx and Avid Pharmaceuticals. The ADCS is the premier NIH-funded clinical trials organization in the United States. It will be providing all of the data management



services required for the trial and will collaborate on data analyses. ADMdx is an advanced brain imaging company that will provide cutting-edge analyses of the metabolic brain scans that will comprise the primary outcome of the R2 trial.

Avid Pharmaceuticals is a biomarker development company that recently developed Amyvid™ for the detection of amyloid plaques in the brains of patients with AD pathology and is now developing a new marker (tau imaging) that will detect neurofibrillary tangles with brain scanning. The R2 trial is the first trial to require positive tangle imaging for participation in the study. The effect of Rasagiline on neurofibrillary tangles, as revealed by tau imaging, will be an important outcome of the R2 trial.

The R2 trial comprises a remarkable collaboration of leading-edge clinical trial and biomarker enterprises that will ensure excellence and will allow the R2 trial to provide information critical to the development of new therapeutics and the use of new biomarkers in clinical trials for AD.

To find out if this and other clinical trials at the Lou Ruvo Center for Brain Health are right for someone you know, please contact us at 855.LOU.RUVO or brainhealth@ccf.org.

Stimulating the Brain: A Novel Therapy

Carol Harrison with Research Coordinator Yolande Mucharbach

For six weeks, five days a week, Cleveland Clinic Lou Ruvo Center for Brain Health patient Carol Harrison spent an hour in a comfortable leather recliner and performed computerized cognitive training exercises. Mrs. Harrison is participating in a randomized clinical trial evaluating the NeuroAD system as a therapy to improve cognitive functioning in patients with Alzheimer's disease. Half the participants receive a low level of Transcranial Magnetic Stimulation (TMS) and half receive a "sham" treatment.



"It was a great experience. Everyone would like to have the opportunity to help find an effective treatment for Alzheimer's. The people at the center treated me like a queen," says Mrs. Harrison, 79, of Las Vegas, who was diagnosed with mild Alzheimer's disease last year by Charles Bernick, MD, MPH, Associate Medical Director, Lou Ruvo Center for Brain Health.

NeuroAD, which was developed by Neuronix of Israel, stimulates targeted areas of the brain affected by Alzheimer's and makes them more receptive to cognitive training. Patients may experience improvement in cognitive and daily functioning, and some studies have found that NeuroAD can alter the course of disease progression, with improved cognitive function sustained for up to a year.

"There's considerable evidence that TMS is effective in improving cognition in people with mild to moderate Alzheimer's disease.

The stimulation promotes the brain and enhances learning and memory," says Kate Zhong, MD, Senior Director, Clinical Research and Development.

Dr. Zhong and Lou Ruvo Center for Brain Health researchers worked closely with Neuronix on study design and logistics, and data analysis. NeuroAD is one of the few Alzheimer's trials offering a treatment that doesn't involve taking oral or injected medications. "It's the Cleveland Clinic 'Patients' First' philosophy to provide our patients with the widest range of trial options," says Dr. Zhong.

Mrs. Harrison is one of eight people aged 60 to 90 with mild to moderate Alzheimer's who have completed the trial thus far. "Trial participants appreciate the ongoing care

and trying something new that may improve their cognitive health," says Yolande Mucharbach, Clinical Research Coordinator.

Mrs. Harrison's daughter and "trial partner" Pam McCauley enjoyed accompanying her mother to the center. "I learned a lot about Alzheimer's from going to the Lou Ruvo Center for Brain Health. The staff was wonderful in every way, always treating my mother with compassion and respect," Mrs. McCauley says.

To find out if NeuroAD or another clinical trial might be right for someone you know, please contact brainhealth@ccf.org or call 855.LOU.RUVO. A complete list of trials is online at clevelandclinic.org/BrainHealthTrials

A Telling Sign: **The A4 Study**

What if we could predict Alzheimer's disease?

With advanced brain scanning, scientists at Cleveland Clinic Lou Ruvo Center for Brain Health can detect changes that predict who is likely to develop Alzheimer's in the next few years. A National Institutes of Health study at the Lou Ruvo Center for Brain Health combines this technology with a new treatment to prevent Alzheimer's in high-risk individuals.

"We are thrilled to bring the A4 study to the Lou Ruvo Center for Brain Health. It represents a new paradigm in therapeutics:

to identify normal individuals who are at risk of developing Alzheimer's disease through amyloid imaging and then attempt to prevent progression through anti-amyloid treatment," said Principal Investigator Charles Bernick, MD, MPH, Associate Medical Director.

The Lou Ruvo Center for Brain Health is participating in the A4 study through the Alzheimer's Disease Cooperative Study Group (ADCS), an elite cohort of 40 top academic medical settings nationwide of which the center is the only member in Nevada. Dr. Bernick and his team seek individuals ages 65-85 who are cogni-

tively normal to participate in the A4 study, a 3-year trial of an investigational medication that may reduce amyloid in the brain with the hope of preventing Alzheimer's disease dementia.

A complete list of trials at the Lou Ruvo Center for Brain Health is online at clevelandclinic.org/BrainHealthTrials. To find out if a clinical trial may be right for you or someone you know, please contact brainhealth@ccf.org or call 855.LOU.RUVO (855.568.7886).

A sampling of research at the Lou Ruvo Center for Brain Health:

STUDY NAME	PARTICIPANT	STUDY TYPE	DURATION
NEURONIX 	Alzheimer's Disease 60-90 years old	Medical Device (NeuroAD Chair)	15 Weeks
TCAD NOBLE 	Alzheimer's Disease 55-85 years old	Daily Oral Tablet (T-817MA)	52 Weeks
 NOURISH AD	Alzheimer's Disease 66-90 years old	Daily Oral Powder (AC-1204)	26 Weeks
Lilly EXPEDITION 3 	Alzheimer's Disease 55-90 years old	Monthly Infusion (Solanezumab)	76 Weeks
TOMMORROW 	Normal Cognition 65-83 years old	Daily Oral Tablet (AD-4833 SR)	5 years
A4 	Normal Cognition 65-85 years old	Monthly Infusion (Solanezumab)	3 years
ASSESS 	Multiple sclerosis 18-65 years old	Daily Oral Tablet/Injection (Fingolimod/Glatiramer)	15 months
ESTEEM	Multiple sclerosis 18 and older	Observational Study for patients who are newly initiating treatment with dimethyl fumarate (DMF) under routine clinical care	5 years
BAF EXPAND 	Secondary-Progressive Multiple-sclerosis	Daily Oral Tablet (BAF312)	23 months to Maximum 60 months
PROFESSIONAL FIGHTER STUDY 	Active and Retired Professional Fighters	Observational Study	4 years

The Neuropsychiatric Inventory: Celebrating 20 Years of Assessing Behavior



Jeffrey Cummings, MD, ScD, Director, Cleveland Clinic Lou Ruvo Center for Brain Health, published the Neuropsychiatric Inventory (NPI) in 1994. The NPI is an interview instrument that allows systematic collection of information on neuropsychiatric symptoms such as delusions, depression, agitation, anxiety, apathy, and sleep disorders from a knowledgeable informant or family caregiver.

Since its publication, NPI profiles have been published on most neuropsychiatric disorders including Alzheimer's disease, Parkinson's disease, frontotemporal dementia, multiple sclerosis, Huntington's disease and many others. The instrument has been used to show the impact of behavior on quality of life of patients and caregivers, and has been employed in pharmaco-economic studies to show the financial impact of behavioral disturbances on the cost of care of patients with neurological disorders.

Dr. Cummings says that when he developed the NPI in 1994, he had no idea that it would become the standard instrument for assessing behavioral outcomes in brain diseases and in clinical trials for neurodegenerative disorders.

The main application of the NPI has been in clinical trials. The NPI is the instrument most commonly used to measure behavioral changes in clinical trials in neurodegenerative disorders. It has shown the behavioral benefits of

widely used medications such as donepezil (Aricept), rivastigmine (Exelon), and memantine (Namenda). It has also been used to study effects of antipsychotics on psychosis associated with Alzheimer's disease and to measure the effects of antidepressants on depressive disorders in Alzheimer's disease. The NPI is playing a major role in the development of new medications to improve behavior in patients with neurodegenerative disorders such as the recent trial of pimavanserin for psychosis in Parkinson's disease.

In a study of the most influential scientists in the world, Dr. Cummings was rated No. 2 in the area of Alzheimer's disease; his work was cited more than 20,000 times between 2008 and 2011. Most of these references were to his work with the NPI or related publications.

Dr. Cummings states that he has "been surprised and very pleased" by the popularity and influence of the NPI over the past 20 years.

Playing a New Game: Maintaining Brain Health After Professional Football

When Eric King visited Cleveland Clinic Lou Ruvo Center for Brain Health last May, the lobby greeters knew right away that the former NFL cornerback was a football player. Mr. King was visiting the center to take advantage of the services offered by The Trust, a set of programs and resources powered by the NFL Players Association (NFLPA), offering support services, including physical and neurological evaluations, to former NFL players.



Eric King (photo courtesy of Eric and Soulfia King)

Cleveland Clinic sites, including Lou Ruvo Center for Brain Health, a leader in brain injury research and treatment, have partnered with The Trust to assess and improve the brain health of retired professional football players. “It was an honor to be chosen to be a medical provider for The Trust,” says Charles Bernick, MD, MPH, Associate Medical Director of the Lou Ruvo Center for Brain Health. “The NFLPA recognized our expertise in this field and appreciated the Cleveland Clinic ‘Patients First’ philosophy.”

Cleveland Clinic uses an evidence-based approach to customize care for each retired athlete, factoring in age, history of concussion and health history. “Devastating conditions can happen to people with repetitive head trauma,” says Dr. Bernick. “We also address transition issues. Professional athletes have never done anything but sports and suddenly need to integrate into society.”

That was the case for Eric King, 32, whose career spanned six years with the Buffalo Bills; Tennessee Titans, which went to the playoffs two years in a row; and the Detroit Lions. “You have to give 110 percent to stay in that league. It’s tough to transition when sports is the center of your life,” says Mr. King, who sustained four serious concussions as a collegiate and professional player. “Every person who puts on a helmet experiences head trauma.”

Accompanied by his wife to the Lou Ruvo Center for Brain Health, Mr. King underwent a comprehensive neurological exam, including a neuropsychological assessment and MRI. He received extensive lifestyle guidance, including a nutrition plan to stay healthy. “Everyone at the center was genuine and treated us with respect. I would definitely recommend the program; I hope to be a role model for younger players who are in transition,” Mr. King says.

NFLPA members may call The Trust at 866.725.0063 for more information on an appointment at Cleveland Clinic’s main campus in Cleveland, Ohio; at Cleveland Clinic Florida in Weston; and at Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas. Other participants in The Trust include the University of North Carolina in Chapel Hill, and Tulane University in New Orleans. For more information, please visit playerstrust.com.



L to R - Sean Sansiveri and DeMaurice Smith of the NFL Players Association, Charles Bernick, MD, MPH, and Jay Alberts, PhD

Introducing Our Nurse Practitioners and Physician Assistants

At Cleveland Clinic Lou Ruvo Center for Brain Health, we take a team approach to patient care. Our neurologists provide initial appointments and diagnoses. Subsequently, patients interact with our physicians' care partners, nurse practitioners and physician assistants, who have more time to devote to patient needs and are in close daily contact with the physicians.

We'd like you to get to know our physicians' care partners, a team that has continued to expand since 2012.



Jennifer Eccles, PA-C

Specialty: Memory Loss and Alzheimer's Disease

Jennifer Eccles received her Bachelor of Science in biology in 1999 from Virginia Tech. She coordinated care for patients enrolled in cancer treatment clinical trials until earning her Masters of Physician Assistant Studies at Touro University, Nevada, in 2013 and becoming board-certified. She remains passionate about the advancement of medicine through research.



Alicia Felicia, MSN, NP-C

Specialty: Multiple Sclerosis

Alicia Felicia has been a board-certified nurse practitioner for more than 13 years, first in endocrinology and then in general neurology, until joining the multiple sclerosis team at the Lou Ruvo Center for Brain Health. In 2001, she obtained her MSN-NP degree from the University of Medicine and Dentistry of New Jersey School of Nursing.



Mary Gauthier, RN, MSN, APRN-BC

Specialty: Parkinson's Disease and Movement Disorders and Manager, Advanced Practice Clinicians

Mary Gauthier is a board-certified family nurse practitioner with 15 years' experience. Ms. Gauthier is adjunct faculty at the University of Nevada Las Vegas Department of Nursing. An Indiana native, she completed her Bachelor of Science in nursing at Indiana University in 1993 and her master's degree in nursing/Family Nurse Practitioner at UNLV in 1998. Having joined the Lou Ruvo Center for Brain Health in 2012, she was promoted to manager of Advanced Practice Clinicians in 2014.



Samantha McLea, MSN, NP-C

Specialty: Memory Loss, Alzheimer's Disease, and retired football players participating in The Trust (see article on page 18)

Samantha McLea is a board-certified family nurse practitioner. She received her Bachelor of Science in nursing in 2004 from Western Michigan University. She had seven years' experience as a registered nurse prior to completing her Master of Science in nursing/family nurse practitioner at Western University of Health Sciences in 2012.



Michelle Thompson, PA-C

Specialty: Memory Loss and Alzheimer's Disease

Michelle Thompson is a board-certified physician assistant. She has 15 years of experience in neurology, internal medicine, surgery and pediatrics. Additionally, she practiced as a nurse for 10 years in both inpatient and outpatient hospital settings. Ms. Thompson is adjunct faculty at Union College and the University of Nebraska Medical Center. She completed her nursing degree and, subsequently, a Bachelor of Science in physician assistant studies in 2001 in her home state of Nebraska.

If you'd like to make an appointment with our clinical team, please contact Cleveland Clinic Lou Ruvo Center for Brain Health at 702.483.6000. Read more about our nurse practitioners, physician assistants and other providers in the "Find a Doctor" tool at clevelandclinic.org/brainhealth.

Expanding World Class Research in Las Vegas



When Research Project Manager Michelle B. Sholar and four colleagues followed Charles Bernick, MD, MPH, from the University of Nevada School of Medicine to Cleveland Clinic Lou Ruvo Center for Brain Health in July 2009, they brought along a portfolio of 1,000 patients and six clinical trials. “There was a lot of paperwork: contracts, budgets, and reapprovals of existing research studies,” Ms. Sholar remembers, “Yet it was so exciting to be part of something new.”

In the last five years, she has come to believe that the Lou Ruvo Center for Brain Health is “where academia meets glamour,” citing the way world-class neuroscience research is conducted within a building designed by famous architect Frank Gehry and supported by elegant star-studded fundraising events.

Ms. Sholar notes the only constant at the Lou Ruvo Center for Brain Health

is change. In 2014, with nearly 100 employees, the center has developed a large research team that raises the bar on standards of care and has evolved to support investigator-initiated projects in addition to pharmaceutical industry-sponsored clinical trials. The center conducts trials of treatments and diagnostics in Alzheimer’s and Parkinson’s diseases and multiple sclerosis.

People participate in the research for various reasons, according to Ms. Sholar: some want hope for their loved ones; others want to participate on behalf of the next generation.

Prior to moving to Las Vegas, Ms. Sholar lived in Boston and worked as a research manager, conducting academic research at the Alcohol and Drug Abuse Research Center at McLean Hospital/Harvard Medical School. Ms. Sholar has co-authored 28 scientific publications in peer-reviewed journals. Previously, she attended training in sleep disorders at Stanford University and worked in sleep disorders medicine at Mid-Maine Medical Center following a long career in medical technology.

What she misses most about New England is fresh whole lobster from her native Maine, and she jokes that she might retire and open an authentic New England seafood restaurant in Las Vegas. Until then, Ms. Sholar says of her role at the Lou Ruvo Center for Brain Health, “Even though I can’t provide a cure today, it’s fulfilling to know that I’m offering patients and their caregivers assistance, information and resources.”



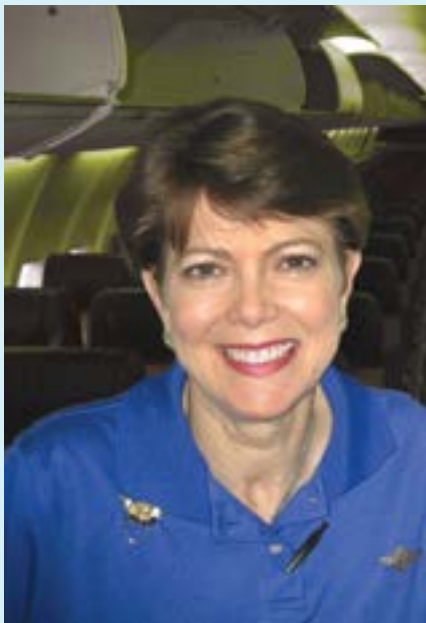
Michelle Sholar with caregiver Joan Wiener

Flying High Despite Parkinson's

When Dana Brake was diagnosed in 2005 with Parkinson's disease, it changed her life. At 49 years old, she was in the midst of a demanding career as a flight attendant for Southwest Airlines. Her first neurologist prescribed drugs to control her symptoms, which were mainly stiffness and slow movement. But Ms. Brake didn't experience enough improvement to allow her to keep working and had to take a medical leave of absence.



Relaxing in Texas



Dana Brake at work

After being away from work for a few years, at the insistence of her mother, Ms. Brake contacted Cleveland Clinic Lou Ruvo Center for Brain Health in 2010. There, she met with Ryan Walsh, MD, PhD, Director, Parkinson's Disease and Movement Disorders Program. She was eager for relief from the gambling problem that had become a side effect of her medication (some common drugs for Parkinson's disease can cause impulse-control disorders).

"It was the best thing I ever did," Ms. Brake says. "Dr. Walsh stays on top of everything. He has stayed on this roller coaster ride with me, figuring out the best plan of attack."

Taking the broader scope of her lifestyle into careful consideration, Dr. Walsh was able to tweak the medication to free her from her impulse-control problems while also providing relief from other symptoms. Ms. Brake was able to return to work.

Effective treatment of Parkinson's requires such highly individualized care. The disease affects the nerve cells near the base of the brain and can cause muscle stiffness, tremors, slowed movement, changes in walking, posture and speech, and loss of balance. Most people are diagnosed between the ages of 65 and 70. Early onset Parkinson's usually affects people in their 30s.

"Because we don't have a method to stop or slow the progression of this disease, we must constantly revisit the patient's treatment," Dr. Walsh says.

Ms. Brake has recently moved to Texas but intends to fly to Las Vegas to attend her biannual appointments with Dr. Walsh.

More information on Parkinson's disease and other conditions treated at the Lou Ruvo Center for Brain Health is online at clevelandclinic.org/brainhealth.

Specialized Physical Therapy for Those with Brain Disorders

Research shows that physical fitness improves cognitive fitness. Cardiovascular exercise can limit cognitive impairment in neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease, and reduce the risk of dementia in older adults. "Cardiovascular exercise increases blood flow to the brain and there is evidence that it slows progression of clinical symptoms and brain atrophy," says Jennifer Nash, PT, DPT, NCS, CEEAA, Manager of Neurorehabilitation Services at Cleveland Clinic Lou Ruvo Center for Brain Health.



Eddie Shaw spars with boxing legend Richard Steele

As part of its mission to improve the lives of people with cognitive dysfunction and provide holistic care, the Lou Ruvo Center for Brain Health in Las Vegas offers a brain health exercise program — featuring physical therapy and group exercise classes — for patients with degenerative brain diseases, including memory impairment, Parkinson's disease and multiple sclerosis. Dr. Nash and her team of certified neurologic and geriatric physical therapists customize exercises to meet patients' needs and incorporate their interests and hobbies.

Physical Therapy and Exercise Classes for Memory Impairment

"People with memory impairment often limit activities and forget to move. When we don't use it, we lose it. Physical therapy can improve standing balance so people can perform daily activities like brushing their teeth and be more independent," says Dr. Nash.

The center offers four-week sessions of twice weekly group exercise classes conducted by physical therapists. "People love socializing with others in the group and really enjoy the activities. They have more energy and are better able to get out into the community and take walks and go shopping," says Dr. Nash. Caregivers attend physical therapy

and exercise classes with participants and learn exercises they can do together safely at home.

Marie Cotter, 72, a Lou Ruvo Center for Brain Health patient diagnosed with Alzheimer's disease, has participated in both physical therapy and exercise classes. "It's uplifting to be active. I feel good afterwards. It is so important to keep moving any way you can," says Mrs. Cotter.

"I've noticed a positive difference in my mother after exercising: she has more strength, greater endurance and is more confident in her ability to do things around the house. I do everything I can to help optimize my mom's quality of life; if it weren't for the Lou Ruvo Center for Brain Health, I don't know where we'd be," says Joy Cotter, Mrs. Cotter's daughter.

Rock Steady Boxing for Parkinson's Disease

Former Indiana Prosecutor Scott Newman had a promising political career that was sidelined by a diagnosis of early-onset Parkinson's disease at age 40. Suddenly, this dynamic attorney had difficulty just writing his name. He began intensive one-on-one boxing with a friend, a former Golden Gloves boxer, and something remarkable happened: his Parkinson's symptoms diminished.



Marie Cotter with Jennifer Nash, PT, DPT, NCS, CEEAA

Rock Steady participant Gloria Durling gets some one-on-one time with Coach Jennifer Nash, PT, DPT, NCS, CEEAA



In 2006, Mr. Newman started Rock Steady Boxing to bring boxing-style training to people with Parkinson's. In a study of Rock Steady Boxing, participants who complete 12 weeks of training had measurable improvements in gait, balance and quality of life. "Boxing addresses more than 20 different areas affected by Parkinson's, including agility, coordination and mental focus. Boxing is empowering and helps relieve depression," Dr. Nash says.

Since July, the Lou Ruvo Center for Brain Health Rock Steady Boxing classes have been held twice weekly at the Richard Steele Boxing Club in Las Vegas. Mr. Steele, a retired boxing referee who was inducted into the International Boxing Hall of Fame, assesses prospective participants and teaches classes with Dr. Nash. Both are certified Rock Steady Boxing trainers.

Participants have been enthusiastic: "People feel on top of the world after a workout, like they can do anything," Dr. Nash says.

New: Occupational Therapy

Cleveland Clinic Lou Ruvo Center for Brain Health now offers all patients individualized occupational therapy, which helps people with daily activities, such as energy conservation and cognitive training, as well as adapting their home environment to their health needs. You can speak to your Cleveland Clinic provider at your next appointment or send a message via MyChart to inquire if skilled occupational therapy would benefit you or your loved one. A Cleveland Clinic physician referral is needed.

To schedule a physical therapy or occupational therapy session or register for an exercise class in Las Vegas, please call us at 702.483.6000.

Expanding MS Care in Nevada

Go to the National Multiple Sclerosis Society (NMSS) web site (nmss.org) and search for a multiple sclerosis (MS) care provider in Nevada and one name will come up: Cleveland Clinic Lou Ruvo Center for Brain Health. This year, the NMSS designated the Lou Ruvo Center for Brain Health as a certified “Partner in MS Care.” “It’s a stamp of approval. The society recognizes and supports MS centers that provide exceptionally dedicated care,” says Le Hua, MD, Director, Cleveland Clinic Mellen Program for Multiple Sclerosis at the Lou Ruvo Center for Brain Health, Las Vegas.



L to R - Nurse Practitioner Alicia Felicia, MS, Medical Assistant Mary Ann McQuade, Neurologist and Program Director Le Hua, MD; CNP; Nurse Linda McMillan, RN; Social Worker Joanne Fairchild, LCSW;

As an NMSS partner, the Lou Ruvo Center for Brain Health can offer additional services to patients, such as educational seminars and informational materials provided free of charge by the NMSS.



Education Coordinator Heather Davis, RN

A \$1.35 million grant from the Conrad N. Hilton Foundation has made it possible for the MS program to offer the comprehensive range of services — clinical care, research, social work and education — that NMSS partners provide. The program has expanded to a team that includes:

- Fellowship-trained MS Neurologist and Program Director Le Hua, MD
- Nurse Practitioner Alicia Felicia, CNP
- Nurse Linda McMillan, RN
- Social Worker Joanne Fairchild, LCSW
- Medical Assistant Mary Ann McQuade
- Education Coordinator Heather Davis, RN

The program has established a dedicated clinical trials program to test new ways of treating MS. “Among neurological diseases, multiple sclerosis has had the greatest number of new medications become available in the past few years,” says Dr. Hua. “All MS medications are preventative so education and outreach are hugely important to informing people about symptoms so they know when to seek medical care.” (See facing page for more information.)

Beyond medical care, MS patients also need help dealing with the psychological impact of having a disabling chronic illness. Lou Ruvo Center for Brain Health Social Services is there to help (see facing page for more information).

Education and Outreach

Educating patients and their families, healthcare professionals, and the Las Vegas community is the focus of the Mellen Program for MS at the Lou Ruvo Center for Brain Health's outreach activities. They include:

- **Newly Diagnosed Patients Educational Series** – a lecture series for patients and their families presented by MS Program team members and NMSS representatives.
- **MS Medical Education Conferences** – offered to clinicians who care for patients with MS, the conferences feature presentations by MS specialists from Lou Ruvo Center for Brain Health, Cleveland Clinic and other medical centers.
- **Difficult Case Discussions** – held at local restaurants, these dinner events help educate Las Vegas-area neurologists and primary care physicians about MS. “We want to raise the level of MS care citywide,” says Dr. Hua.

Reaching out to Las Vegas' Latino community is a key part of the program's outreach activities. “Our passion for serving the underserved is shared by the Conrad N. Hilton Foundation,” says Education Coordinator Heather Davis, RN.

Social Services

Coping with a progressive, disabling and unpredictable disease like MS can trigger depression and anxiety. “It forces people to come to terms with their vulnerabilities and limitations and adjust their self-image,” says Joanne Fairchild, LCSW, Clinical Social Worker.

Joanne Fairchild, LCSW, with patient Emily Chaet



Thanks to the Hilton grant, the Lou Ruvo Center for Brain Health can offer the following social services free to any person with MS, regardless of whether he or she is being treated at the center.

- **Counseling** – helps patients to “understand the full meaning of an MS diagnosis, explore their deepest thoughts and feelings, and undergo the grieving process of having a chronic illness,” says Ms. Fairchild.
- **Support groups** – a monthly support group is offered to family members of MS patients. The NMSS offers MS support groups throughout Las Vegas, which help patients overcome their isolation and connect with others.

- **Lynne Ruffin-Smith Library** – offers books, videos and online resources that address a wide range of MS topics.

To make an appointment with the neurology team at Mellen Program for MS at the Lou Ruvo Center for Brain Health, please call 702.483.6000. For more information on social services available for families living with MS, contact Joanne Fairchild, LCSW, at 702.483.6006 or FAIRCHJ@ccf.org.

Cleveland Clinic Urology, Las Vegas

Since opening in April 2013, Cleveland Clinic Urology, Las Vegas, has provided comprehensive and advanced urologic care administered with the Cleveland Clinic “Patients First” approach. Fully equipped with the latest technologies, including new machines for performing diagnostic tests such as endoscopies and ultrasound scans, Cleveland Clinic Urology treats the complete range of urological issues, spanning urinary incontinence, erectile dysfunction, and cancers of the prostate, kidney and bladder.



Jayram Krishnan, DO, with a patient

“Our goals are to add to the quality of urology care in Las Vegas, to offer technologies not currently available here and collaborate with the medical community in taking care of more difficult patients,” says Scott Slavis, MD, Medical Director, Cleveland Clinic Urology, Las Vegas.

To fulfill its goal of offering patients the latest advances in urologic care, Cleveland Clinic’s Glickman Urological & Kidney Institute, of which Cleveland Clinic Urology, Las Vegas, is a part, has added urologist Jayram Krishnan, DO. Dr. Krishnan had been an advanced robotics and laparoscopy fellow at Cleveland Clinic’s main campus in Ohio and has relocated to Las Vegas.

“Cleveland Clinic is dedicated to advancing the field of medicine, allowing doctors to become experts in their field and providing cutting-edge medicine to patients. We

continue to expand this model in Las Vegas; we want people to have access to the highest quality care,” says Dr. Krishnan.

A graduate of New York College of Osteopathic Medicine, Dr. Krishnan completed a general surgery internship at the National Naval Medical Center and served as a medical officer in the Navy for four years. He went on to a urologic surgery residency at the University of Medicine and Dentistry in New Jersey and continued his training at Cleveland Clinic.

In addition to serving as a general urologist, Dr. Krishnan will offer minimally invasive treatment options for bladder, prostate, ureteral and kidney cancers. He will also perform all reconstructive urology procedures, including implanting neobladders

(bladders created from the patient’s own intestine to treat bladder cancer). “This is my specialty and I am excited to bring my skills to Las Vegas,” Dr. Krishnan says.

“Robotic and minimally invasive procedures have the potential for fewer side effects and quick recovery with good outcomes,” Dr. Slavis says. “Dr. Krishnan is a recent fellow who brings a new era to urologic treatments. His background is very supportive of our practice and he has great energy and enthusiasm.”

For more information on Cleveland Clinic Urology, Las Vegas, or to make an appointment, please call 702.796.8669 or visit clevelandclinic.org/Nevada



Food for Thought: An Educational Feast for the Mind and Body

Did you know food literally fuels thought? Your brain is the most valuable organ you have and is more sophisticated than any computer. But like any machine, your brain requires ongoing maintenance, and part of that maintenance can be achieved by making smart food decisions each and every day.

On April 3, Kate Zhong, MD, Senior Director Clinical Research, Cleveland Clinic Lou Ruvo Center for Brain Health, hosted “Food for Thought,” a lively, interactive event that featured healthy eating tips from food experts, samples of salmon, dark chocolate, and other delicious and nutritious food, brain-healthy red wine, and goodie bags including Cleveland Clinic recipes.

Dr. Zhong was joined on stage by Chef Gustav Mauler, CMC, Owner, Spiedini Ristorante and Gustav’s Master Chef Catering; and Nutritionist and Author Elizabeth Somer, MA, RD. Together, these experts addressed healthy eating from three perspectives: its impact on brain health, low-cost and quick ways to prepare meals, and the nutritional impact of this type of eating.

Below: Elizabeth Somer, MA, RD, Chef Gustav Mauler, CMC, and Kate Zhong, MD



What you can do right now to assess your brain health?

If you live in the Las Vegas area and would like to participate in the Lou Ruvo Center for Brain Health’s next Memory Screening Day, please register online at keepmemoryalive.org/2014screening or call 855.LOU.RUVO (855.568.7886).

Don’t want to wait for the next free screening? You can use our brain health self-assessment tool online anytime at clevelandclinic.org/brainhealth and share the results with your physician. Or, contact us at 702.483.6000 to make an appointment with a neurologist.



HARRY WINSTON *Brilliant Futures™*

A sincere thank you to Harry Winston Brilliant Futures, without whose support we couldn’t have produced this event. It was enjoyed by 300 engaged attendees, many of whom reported they were going home to make some material changes in their nutrition.

At the Lou Ruvo Center for Brain Health, we strive to inspire young and old alike to adopt a brain-healthy lifestyle. Interested in hearing more about our educational events? Please contact us at LouRuvoSocialServ@ccf.org to join our mailing list or visit the “events” tab at keepmemoryalive.org.

Holiday Outreach: Annual Open House

The December holidays typically comprise a season filled with family get-togethers, travel and parties. Yet, living with a neurological disease such as Alzheimer's, Parkinson's or multiple sclerosis can create considerable stress at an otherwise joyful time.

Families often tell us they have had to curtail holiday activities and traditions they have always eagerly anticipated. Four years ago, the social services team at Cleveland Clinic Lou Ruvo Center for Brain Health began a new tradition of hosting a holiday open house, free and open to the community. The open house was conceived as a time for families and loved ones to celebrate the joys of the holiday season in a welcoming setting with others who understand their experiences.

The event has expanded each year in attendance and activities. There are holiday refreshments, a cookie contest, entertainment and good cheer. There is always an opportunity to give back to others in the community. Last December, attendees personalized hundreds of holiday cards with messages of hope that were distributed to homebound older adults.



Feedback from the open house has been heartwarming. Photos from the event capture the special moments of joy experienced. Last year, participants had the opportunity to share their hopes and memories that were transformed into a signature quilt created by the Las Vegas Quilters. This unique quilt will be on display at this year's event.

This event is part of the Lou Ruvo Center for Brain Health's focus on providing opportunities for those affected with neurological diseases and their families to participate in activities together. The new Art in the Afternoon program, modeled after the Meet Me at MoMA program, is another such example (see *article on page 30*).



Save the date

Save the date and join us for cheerful fun at the holiday open house on December 17. From 11 a.m. until 1 p.m., we'll gather in the Frank Gehry-designed Keep Memory Alive Event Center where you'll step into a festive wonderland.

Throughout the year, visit our calendar of no-cost educational programming at keepmemoryalive.org/socialservices or join our mailing list by contacting Susan Solorzano at 702.483.6055 or solorzs@ccf.org.

Art in The Afternoon: Meet Me at the Ruvo Center

When a family member is affected by memory loss, one of the greatest challenges families face is identifying ways to enjoy pleasant experiences together in a welcoming environment.



A Beautiful Mind by Romero Britto

Exposing an individual with memory loss to intellectually stimulating activities improves mood and behavior and strengthens relationships at a time of great challenge. Building upon the Music and Memories lecture, the annual holiday open house, and myriad other free family activities at Cleveland Clinic Lou Ruvo Center for Brain Health in which more than 3,000 individuals have participated since 2010, Art in The Afternoon enlivens the senses and inspires conversation.

Modeled after the New York Museum of Modern Art's "Meet Me at MoMA" program, the Lou Ruvo Center for Brain Health's Art in The Afternoon fosters interesting conversation, creative thinking and memories among individuals experiencing cognitive impairment and their caregivers. Gone are concerns over "forgetting the answer," since reactions

to art are subjective and based on each individual's response to art at a given moment in time.

The program is facilitated by volunteer docents. These committed volunteers have been trained by the Institute of Art and Medicine at Cleveland Clinic's main campus in Ohio, who also have replicated MoMA's program. Art tours are organized around a theme, such as nature or color.

The goal of the Lou Ruvo Center for Brain Health's social services team is to provide experiences to strengthen families at a time when their very fabric is challenged by the devastating impact of a loved one living with memory loss or other cognitive impairment. With educational resources and guidance from our social workers, families can implement strategies for bringing enjoyment to daily activities of their loved one and reducing isolation typically experienced by care partners.



Cervello Spazio Cosmico by James Rosenquist



Sugar by Peter Alexander

Interested in attending Art in The Afternoon?

Art in The Afternoon is held on the fourth Monday of the month. The interactive program is free and open to anyone living with memory loss, but an RSVP is necessary. Please contact Susan Solorzano at 702.483.6055 or solorzs@ccf.org to reserve a place for you and your loved one or to obtain more information. Visit our complete calendar of no-cost educational and social services programming at keepmemoryalive.org/socialservices.

Being Useful

“What is the worst part of having Alzheimer’s?” Jeffrey Cummings, MD, ScD, Director, Cleveland Clinic Lou Ruvo Center for Brain Health, asked Bob Patterson, a respected retired aerospace engineer. “Not being useful” was Bob’s immediate response.

Dr. Cummings found a role for Mr. Patterson: he invited his patient and wife Karen Patterson to educate medical trainees about Alzheimer’s. Mr. Patterson reported arriving home from each education session to find an email from Dr. Cummings thanking him and reminding him that he was still useful. “I learned so much from you today, Bob.”

As his Alzheimer’s has worsened, one of Mr. Patterson’s greatest joys is his newly found passion for painting. His favorite subject is “tangles,” which is how he depicts his own brain. During a recent visit to Las Vegas, Mr. Patterson presented Dr. Cummings with a special painting of “Tangles.”

As Bob Patterson’s sister-in-law Donna Epstein Cloobek says, the family has been immensely impressed with the dignity with which patients are treated at the Lou Ruvo Center for Brain Health.

Bob Patterson has not been Ms. Cloobek’s only experience of a family member with Alzheimer’s, for she also witnessed the passing of her children’s grandmother to the devastating disease.

“‘Little Mamma,’ as we called her, was this glamorous, fun-loving woman who enjoyed playing backgammon with her grandson, was movie-star gorgeous, and who took pride in her personal appearance and surroundings,” shares



Jeffrey Cummings, MD, ScD, with Bob Patterson and Tangles

Ms. Cloobek. “She was a small woman with a huge personality.”

“It was very hard to watch her become a diminished version of herself as her struggle with the disease progressed,” remembers Ms. Cloobek. “Yet I also watched my children grow into patient, loving and compassionate young adults as they helped their grandmother maintain her dignity.”

“As horribly devastating as Alzheimer’s is, the disease brought out the best in them,” which is why she and Little Mamma’s grandchildren chose to make a gift to the Lou Ruvo Center for Brain Health, with the funds dedicated to the center’s research program.

If this sounds like your family’s story, we invite you to join our mission. Please contact Director of Development Gina Hines at hinesg@ccf.org or 702.331.7052 to discuss giving opportunities.



Donna Epstein Cloobek flanked by daughter Dana Epstein Hofflander, son Lawrence Epstein and Jeffrey Cummings, MD, ScD

Jewel Brooks: A Woman of Vision and Mission

While visiting Los Angeles from her native Tennessee, her mother had a craving for Chinese food that landed them in the Seven Seas and changed 17-year-old Jewel Brooks' life. Bob Brooks, the proprietor, asked her if she could join the pair and inquired about Jewel's age. Upon exiting the restaurant, Jewel Brooks proclaimed to her mom, "I'm going to marry that man!"



Bob and Jewel Brooks at The Seven Seas

A college football star armed with a law degree from University of Southern California, Bob Brooks was a self-made man whose entrepreneurial career spanned newspaper sales as a young boy to entertainment and real estate holdings as an adult. Mr. Brooks, 19 years Jewel Brooks' senior, confessed to Jewel — by then his wife — that he had been hungry much of his childhood. He figured he'd never again go hungry if he owned a restaurant, so he opened his first business: a small roadside cafe on Santa Monica Boulevard into which he lured passersby with signs proclaiming "Beer. 5 cents." It occurred to him if he raised the price, he could also raise the caliber of his clientele, and so he changed the sign to "25 cents" and required gentlemen to wear jackets. As business grew, he moved to Hollywood Boulevard, expanded the Polynesian-themed Seven Seas, and produced three floor shows nightly.

When a race with Howard Hughes in their private planes landed him in Las Vegas, Mr. Brooks started exploring business options in the bustling frontier town. In 1941, he opened the Nevada Biltmore, the first hotel with a pool in Las Vegas.

Mr. and Mrs. Brooks raised two daughters, traveled the world, and grew their business portfolio. She accepted numerous fundraising leadership roles for nonprofits in Las Vegas, including a debutante ball that introduced the next generation of Las Vegas' finest ladies.

When Mr. Brooks developed Alzheimer's disease, Mrs. Brooks stepped up, took charge, and ran the family's businesses.

Mrs. Brooks engaged round-the-clock nursing for her husband so he could remain at home while she ran their recently opened hotel. Shaped by a lifetime in hospitality, Mr. Brooks still loved company and enjoyed frequent visits

from friends. Mrs. Brooks says that social network was a critical support for her as well, reducing the isolation family caregivers typically experience.

A few years after Mr. Brooks passed, she received a copy of the architectural plans for Cleveland Clinic Lou Ruvo Center for Brain Health, which would be opening not far from the family's Las Vegas home. She immediately selected an exam room to name in her husband's honor.

Her support has continued to grow and be recognized with signage on the center's honor wall and in its fourth floor lobby, as well as induction into Cleveland Clinic's 1921 Society. At 89, Mrs. Brooks enjoys buying the best tables at Keep Memory Alive's fundraising events.

"I love to support the Lou Ruvo Center and encourage others to join me," says Mrs. Brooks. "At this point, it's one of the things I care most about."

**If you'd like to support the Lou Ruvo Center for Brain Health,
please contact Gina Hines at 702.331.7052 or hinesg@ccf.org.**

Marking a Milestone by Giving: **Marisa Granados**

When 13-year-old Marisa Rose Amada Granados learned that her story would be featured in *New Thinking* magazine, she announced with excitement, “Yeah! Grammy’s going to be famous!” reports Marisa’s proud mom, Leah Rudnick. “It’s a perfect example of Marisa’s tender love for her grandmother: complete unselfishness and unflinching commitment to keep her grandmother’s memory alive.”



Marisa, center, with her grandmother, Margaret Nora Rudnick, and sister Analise in Spring 2010

Margaret Nora Rudnick passed away from Alzheimer’s at the age of 86, leaving behind an adoring granddaughter, Marisa, who was 11 at the time. Among her many hobbies, Marisa Granados is a self-professed “architecture nerd” who, while conducting research from her home in Albuquerque, New Mexico, discovered that one of her favorite architects, Frank Gehry, had built a center for Alzheimer’s care in Las Vegas.

“It was pure luck that this building was in Las Vegas, the city where my grandmother had lived, and that it was a center for helping people with brain diseases including Alzheimer’s,” says Miss Granados.

One of Miss Granados’ most profound memories of her grandmother was her desire to one day attend Marisa’s bat mitzvah. Although she did not live to mark that special milestone with Marisa, her words resonated.

Upon completing her mitzvah project of playing the violin at the assisted living home where her grandmother had lived, Marisa Granados decided to donate some of the money she received for her bat mitzvah to Cleveland Clinic Lou Ruvo Center for Brain Health. In December 2013 while visiting Las Vegas, Marisa and her family toured her architecture hero’s iconic structure, learned more about the

center from Director Jeffrey Cummings, MD, ScD, and presented a check to Director of Philanthropy Gina Hines.

“I chose to donate to the Lou Ruvo Center for Brain Health because I know how hard it is to have someone in your family living with a brain disease. I completely support research towards a cure and know that my grandma would be proud of my decision,” says Miss Granados.

Marisa Granados has indeed chosen to Keep Memory Alive in honor of her grandmother. If you would like to honor a loved one, please contact Gina Hines at 702.331.7052 or hinesg@ccf.org.

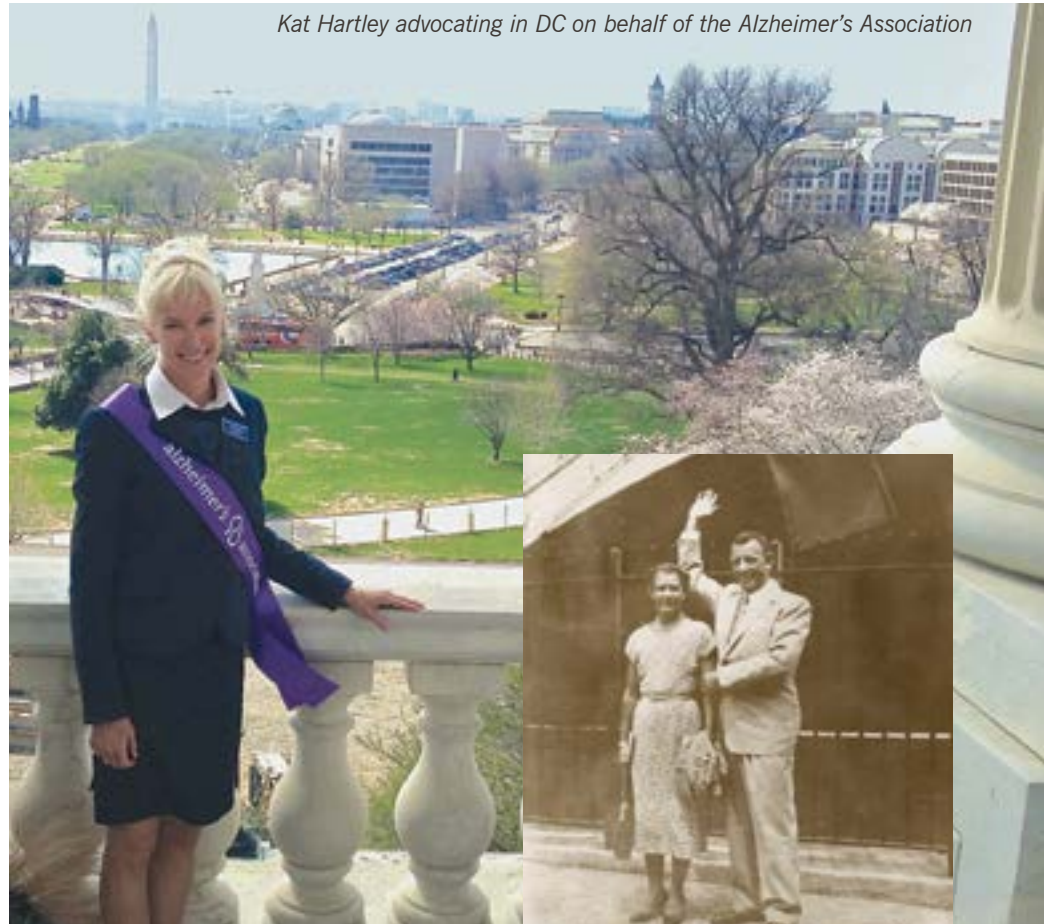
Honoring Her Family: Kat Hartley

“My desire to help others is prompted by how helpless I felt when faced with my own dad’s Alzheimer’s,” explains Katurah “Kat” Hartley. “My stepmom would call crying, overwhelmed. As a healthcare professional I knew I should be able to help, yet I, myself, felt helpless.”

Despite seven years at the Food and Drug Administration as a project manager for Alzheimer’s, Parkinson’s and ALS drug treatments, Ms. Hartley, a registered pharmacist, didn’t feel any more capable of improving her family’s ability to manage a loved one’s Alzheimer’s than the family had felt decades earlier when the same disease struck both of her paternal grandparents.

“They were wealthy, but even with money, my grandparents couldn’t buy quality healthcare for Alzheimer’s disease. It just didn’t exist in the 1970s and 80s. Their care was tragic.”

Three years into her stint as a volunteer at Cleveland Clinic Lou Ruvo Center for Brain Health, Ms. Hartley says of the center, “It’s so dynamic. We have world class healthcare, brilliant physicians, a kind and caring staff and wonderful volunteers.”



Kat Hartley advocating in DC on behalf of the Alzheimer’s Association

Iris and Boykin Hartley, Kat’s grandparents

The Lou Ruvo Center for Brain Health is a great place to make friends, give back and “witness amazing stories of true love that remind us why we’re doing this.” She remembers a couple coming in on Valentine’s Day. The man had his arm around his wife, and even though he was there for a tough medical appointment, they were cheery and talkative. He introduced her as ‘his beautiful wife of 50 years,’ and ‘isn’t she gorgeous?’”

As a volunteer, Ms. Hartley has assisted in clinic, and more recently, leveraging her research background, has helped organize the center’s free memory screening and

started recruiting patients to participate in the TOMMORROW prevention study.

Ms. Hartley is Chair of the Advocacy Committee for the Desert Southwest Chapter of the Alzheimer’s Association and in this capacity serves as an ambassador to U.S. Senator Harry Reid’s office and advocates on Capitol Hill for increased Alzheimer’s research.

“I applaud Larry Ruvo’s vision and his fortitude in creating this center to celebrate his family. I hope I can serve my family with the same level of respect and honor. I too want to make it better for families facing this disease,” declares Ms. Hartley.

If you would like to make a difference in the Las Vegas community by joining our team of engaged volunteers, please contact Dee King at 702.331.7046 or dking@keepmemoryalive.org.

A complete list of trials is online at clevelandclinic.org/BrainHealthTrials. If you are interested in participating in a clinical trial, please contact brainhealth@ccf.org or call 855.LOU.RUVO.



photo: Jeff Mitchum Galleries

Summer Shindig at Shakespeare Ranch

Guests once again gathered on the shores of Lake Tahoe for a weekend of fun and fundraising now known as the Summer Shindig at Shakespeare Ranch. Favorite components flourished, including Waco McGill's Glenbrook Rodeo, whose 500 attendees shattered previous records, and a live auction at the Emeril Lagasse dinner that eclipsed the weekend's fundraising record.

Some of the weekend's newest components surprised and delighted guests, with a lucky few enjoying a golf clinic with PGA legend Mark O'Meara who graciously posed for photos and offered tips throughout the weekend. Serendipity played a role in the entertainment, with Senator Dean Heller's wife, Lynne, spontaneously singing the national anthem to kick off the rodeo, and Keep Memory Alive supporter Christy Molasky joining Friday night's band, Left of Centre, alongside Chef Lagasse.

For guests who attended the entire weekend, a behind-the-velvet-rope experience at Lori and Michael Milken's home expanded to include a timely presentation on key changes in healthcare spanning insurance, technology and treatment innovations. The power trio of Mr. Milken and Michael Modic, MD, and Jeffrey Cummings, MD, ScD, Chairs of Cleveland Clinic's Neurological Institute and Lou Ruvo Center for Brain Health, respectively, explained that these changes

made philanthropy more important than ever in ensuring quality healthcare. Lior Suchard, whose business card proclaims "Supernatural Entertainment," awed guests by seemingly reading their minds.

That evening, Chef Emeril Lagasse continued his generosity, once again donating ingredients and flying his team from Las Vegas and New Orleans to join him in preparing what many guests proclaimed was the best meal ever served



L to R - Nicholas and Shelley Schorch, Michael and Lori Milken, and Bill and Elizabeth Kahane



photo: Jeff Mitchum Galleries



Kelley Schumacher and entertainer Lior Suchard

at Keep Memory Alive's weekend in Tahoe. Many thanks to the Ferrari-Carano family, who donated the evening's wine.

Keep Memory Alive Chairman and Founder and the weekend's host, Larry Ruvo, served as auctioneer. Among this year's most prized items were a week at the Masters Tournament as VIP guests of Meredith and Mark O'Meara, a private dinner for 20 prepared on location at Siegfried & Roy's home and tiger habitat by Iron Chef Masaharu Morimoto, and lunch with music legend Quincy Jones.

Everyone was dancing, singing along and "Getting Footloose" as multi-platinum, two-time Grammy Award winner Kenny Loggins blew the roof off the barn.

If you missed the 2014 Summer Shindig, please contact us at 702.263.9797 or events@keepmemoryalive.org to join our monthly events email update.

Larry Ruvo and PGA legend Mark O'Meara



The Carano family



Brice Jones (right)



Emeril Lagasse congratulates a winning auction bidder



Kenny Loggins gets the crowd on its feet

Many thanks to our event sponsors:

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- Les Busick
- Viktoria & B. Keith Byer
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- Robert N. Chester
- Cleveland Clinic
- Brett Coleman
- Brandis & Jon Deitelbaum
- Tammy & Michael Dermody
- Eldorado Hotel & Casino
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- Valerie & Mike Thompson
- Toast Spirits
- Norma & Ranson Webster
- Patrick Willis
- Karen & Rick Wolford
- Yacht Club Vodka

Hosting an **Event to Remember**

One look at the Frank Gehry-designed Keep Memory Alive Event Center Las Vegas and you know you're in for an event like none other. Nestled in downtown's Symphony Park just minutes from the Las Vegas Strip, the attention-demanding building seems worlds away from the corporate cluster of traditional hotel ballrooms.



Walking through the breezeway and lush Gehry-designed garden into the undulating stainless steel canopy dotted with 199 windows (no two the same shape or size), you can't help but let your mind wander to imagine the seemingly infinite ways the space can be transformed. From weddings, corporate events, bar and bat mitzvahs to corporate holiday events and social celebrations, the Keep Memory Alive Event Center combines iconic design, extraordinary dining and the city's most innovative LED light presentation to create a truly unique experience. And with the proceeds going to the research and treatment at Cleveland Clinic Lou Ruvo Center for Brain Health, each unforgettable event hosted at the Event Center will help others remember.



To schedule a tour of the facility, please contact Keep Memory Alive at 702.263.9797 or eventcenter@keepmemoryalive.org.

Keep up with the Keep Memory Alive Event Center through Facebook, Twitter, Instagram and Pinterest or by visiting the website at KMAEventCenterLasVegas.com.



Matthew Carbone Photography



“It’s always exciting to watch clients and guests walk into an event and see their faces just light up in awe,” said Keep Memory Alive Event Center Director David Watts. “Our team is passionate about creating one-of-a-kind experiences and we’re always thinking of new ways to up the ‘wow’ factor.”

Such was the case with Hayley Freeman and Bryan Heard’s lavish wedding reception for 200 guests, organized by Andrea Eppolito Weddings & Events. The Keep Memory Alive Event Center was set ablaze in purple hues, while a seven-tiered cake hung suspended from the ceiling and the new couple’s mono-

gram was emblazoned on the pure white dance floor.

“I could not imagine getting married anywhere else! The Keep Memory Alive Center was exactly what I wanted and more — not on the Las Vegas Strip, totally unique, easily accessible, spacious, with lots of options for food and beverage and personalization. David Watts was fabulous! He really cared about us and our wedding. Chef Gustav was impeccable! He was very hands on and attentive, great with my family at the tasting, made suggestions, and let us tweak his dishes until they were exactly perfect for us,” says the bride on weddingwire.com.



Healthy Indulgence: Healthy Living to Excite the Mind

What happens when you combine healthy food and beverage with Vegas performers, a masked graffiti artist and the world's largest fire-breathing, car-crushing transformer robot? We at Keep Memory Alive call it Healthy Indulgence (and by the way, dark chocolate is good for the mind, so eat up... in moderation).

Healthy Indulgence was curated as a unique event to introduce a younger demographic to Keep Memory Alive's philosophy around brain health. "We imagined that maybe they're not yet dealing with family members living with brain diseases, but with parents and grandparents rapidly becoming at risk for brain disorders and memory decline simply by age alone, it's time to get educated on the resources right here in their backyard," said Anna Robins, Senior Director of Special Events.

The evening started with the surprise unveiling of a plaque on Cleveland Clinic Lou Ruvo Center for Brain Health's Honor Wall recognizing Las Vegas nightclub luminary and Healthy Indulgence co-creator Jesse Waits' grandfather who died of Alzheimer's. Mr. Waits' nightclub partner and event co-creator Sean Christie was there to share the moment.

The pace picked up quickly with Sounds by Mighty Mi and a special guest appearance by internationally renowned celebrity DJ, Avicci.

Prior to taking the helm as the event's emcee, Mario Lopez of Extra toured the Lou Ruvo Center for Brain Health with Keep Memory Alive Chairman and Founder Larry Ruvo.

A special thanks to everyone involved in this event, notably to Sean Christie and Jesse Waits who co-hosted the evening and spent countless hours making the event a success. Thank you to event premier sponsor The Plaza Hotel and Casino. "Cleveland Clinic Lou Ruvo Center for Brain Health has been a remarkable catalyst, both locally and nationally, for research and treatment of brain disease and for raising cross-generational awareness. They are a wonderful part of downtown Las Vegas, and we were proud to partner with them on such a successful and fun event," says Jonathan Jossel, CEO, Plaza Hotel and Casino.



L to R- Larry and Camille Ruvo, Mario Lopez and Courtney Mazza



L to R- Sean Christie, Avicii and Jesse Waits



Avicii and Mario Lopez



Guests hit the red carpet



Jesse Waits unveils a plaque in honor of his grandfather on the Lou Ruvo Center for Brain Health's Honor Wall

Monopolizing the Crowd's Interest



As reported on the artist's web site, "Alec Monopoly is the alias of an unidentified graffiti artist, originally from New York City." His most iconic pieces are arguably those of his chosen name-sake: characters from the board game, Monopoly.

In May 2014, Alec Monopoly continued his well-known collaboration with internationally celebrated DJ Avicii, lending his painting talent while his musical friend appeared at Keep Memory Alive's Healthy Indulgence Festival.

"Alec brings a whole new younger demographic. He's a very talented internationally known artist," says Larry Ruvo, Keep Memory Alive Chairman and Founder. "What I enjoyed most about our meetings was his immediate commitment to our mission."

Inspired by his tour and armed with spray paint, Mr. Monopoly entertained the crowd at Healthy Indulgence by creating pieces on location featuring the spritely Monopoly character gallivanting around Frank Gehry's iconic architectural masterpiece, Cleveland Clinic Lou Ruvo Center for Brain Health.

The paintings are now available for sale to benefit Keep Memory Alive in support of the Lou Ruvo Center for Brain Health. For more information, please contact 702.263.9797 or specialevents@keepmemoryalive.org.

Artist Vladimir Kush Joins Keep Memory Alive's Matrix of Supporters

Vladimir Kush's richly allusive paintings, sculptures and jewelry designs weave together natural history, mythology, poetry, literature and art history with hidden cultural references. In fact, he's internationally renowned as the founder of metaphorical realism.

"Vladimir's work is closely aligned with the Lou Ruvo Center for Brain Health. It is a reflection of the highest level of activity of the healthy brain — creativity. His paintings and sculpture are highly conceptual, filled with metaphor and meaning, and each takes you on a journey of the mind," says Jeffrey Cummings, MD, ScD, Director, Cleveland Clinic Lou Ruvo Center for Brain Health.

"We at Keep Memory Alive were fortunate that after visiting the center and meeting Dr. Cummings, Vladimir immediately joined our fight against these horrible brain diseases and made a commitment to continue to help us now and in the future," says Larry Ruvo, Chairman and Founder Keep Memory Alive.



Matrix of Love is a story of human love, represented as a symbolic bookcase where every happy moment of love "finds its own shelf." It is the "morning of love," it is "evening," it is "spring and fall." Matrix of Love: Oil on canvas, 57" x 57", custom artist designed frame made of tropical walnut.

Making a Difference, One Event at a Time

Large or small, each event is important to Keep Memory Alive's friend-raising and fundraising mission and provides a venue for Cleveland Clinic Lou Ruvo Center for Brain Health's staff to meet and engage with people who might become ambassadors, donors or patients.



L-R- Anna Robins, Steve Schorr and Camille Ruvo



L-R- Alex Yemenidjian, Brian Greenspun and Tom Kaplan

2014 Event Spotlight: Vegas Dozen

This April, Saks Fifth Avenue once again selected Keep Memory Alive as the beneficiary of its annual Vegas Dozen, a networking mixer that celebrates 12 community-oriented Las Vegas men.

"We are honored to have Saks Fifth Avenue as a top supporter of Keep Memory Alive," says Camille Ruvo, Vice Chairman, Keep Memory Alive. "Saks along with Vegas Magazine step out in grand style to honor and recognize the many philanthropic community leaders who support their personal favorite charities in Las Vegas, including Keep Memory Alive."

If you are interested in hearing about our events or hosting one for us, please join our mailing list at speialevents@keepmemoryalive.org or visit the "Events" tab of keepmemoryalive.org, where you'll find much more than this sampling of upcoming events:

September 28, Hundred Acre Poker tournament: Play and dine among the jet set in an exclusive Napa vineyard

October 11, Michael Bubl : An intimate dinner and concert capped at 300 people at the Keep Memory Alive Event Center

December 6, 40th anniversary of Le Cirque: Join us at the Bellagio with Sirio Maccioni and dine at the tables where legends have been made



The Vegas Dozen Class of 2014 flanks Mari Landers, Vice President and General Manager, Saks Fifth Avenue

photos: Audrey Dempsey - Infinity Photo

VISITOR PHOTO GALLERY



Director of Philanthropy Gina Hines (center), hosts DJ Steve Angello, to her right, and friends



John Ciesielka, MD, and Dale Bottoms of Blue Oak Charitable Fund visit



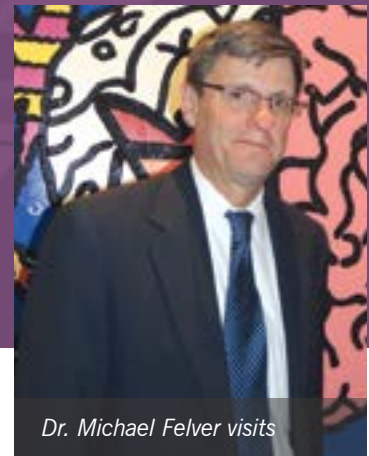
Larry Ruvo and Jeffrey Cummings, MD, ScD, welcome Chef Giada de Laurentis who was in Las Vegas opening her first restaurant, Giada



Jeweler Steven Lagos unveils a plaque on the Lou Ruvo Center for Brain Health Honor Wall



**Brian Patchett
President & CEO,
Easter Seals Inc.**



Dr. Michael Felver visits



L to R- Larry Ruvo, Linda Kilpatrick, Jeff Cummings, MD, ScD, Frank Kilpatrick and Kate Zhong, MD



L to R - David and Roberta Tice, Fred and Barb Stayrok and guest visit the Lou Ruvo Center for Brain Health



L to R- Salvatore Solano, Fanny Fouche, Jean-Luc Columbo and Ian Ribowsky



Larry Ruvo hosts Marc Taub of Palm Bay International, center, and guest



L to R- Jack Godfrey, Carlos Ruisanchez, Tracy West, Michelle Shriver and Anthony Sanfilippo



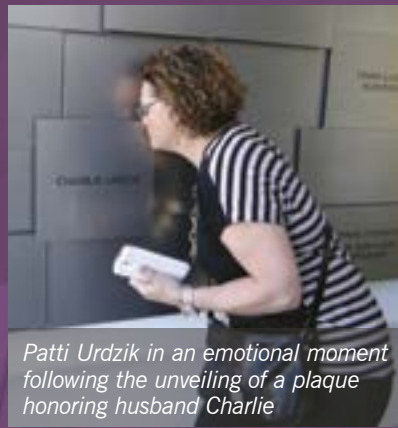
Krisi Cristalli presents Keep Memory Alive with a donation from the grand opening of d'annata boutique



Richard Steadman, MD, second from left, and Marc Philippon, MD, fourth from left, and their Steadman Philippon Research Institute fellows



Steve Lawrence unveils a plaque in honor of his wife and collaborator, Eydie Gorme



Patti Urdzik in an emotional moment following the unveiling of a plaque honoring husband Charlie



Michael Modic, MD, Norma Lerner, Member, Cleveland Clinic Board of Directors, Dean Fisher, and Helen and Dr Ron Ross visit from Cleveland



Members of the Alzheimer's Awareness Club at The Meadows School

Recognized for Excellence

In the first half of 2014, Cleveland Clinic Lou Ruvo Center for Brain Health's employees were recognized by their community, peers and professional associations for clinical excellence and leadership in their fields.

We celebrate their accomplishments.

Healthcare Hero Award
(*Nevada Business Magazine*,
September 2014)

Innovator Category
Charles Bernick, MD, MPH
Associate Medical Director

Nevada Boxing Hall of Fame
Class of 2014
(*Nevada Boxing Hall*
of Fame, August 2014)

Special Achievement Category
Charles Bernick, MD, MPH

Board Certified Neurologic
Clinical Specialist – NCS
(*American Physical Therapy*
Association, June 2014)

Meleah Murphy, PT, DPT, NCS
Physical Therapist

Certified Exercise Expert for
Aging Adults - CEEAA
(*Academy of Geriatric Physical*
Therapy, June 2014)

Jennifer Nash, PT, DPT, NCS, CEEAA
Manager, Neurorehabilitation

Member, Board of Directors
(*International Special Event Society-*
ISES, June 2014)

David Watts, Director
Keep Memory Alive Event Center

Top Doctors
(*Vegas/INC's Healthcare Quarterly*,
Spring 2014)

Charles Bernick, MD, MPH

Jeffrey L. Cummings, MD, ScD, Director

Dylan Wint, MD, Director, Fellowship
in Cognitive Disorders; Director,
Education in Neurodegeneration

Top Doctors
(*Seven magazine*,
Spring 2014)

Jeffrey Cummings, MD, ScD

Vegas Dozen (Saks Fifth Avenue, April 2014): Charles Bernick, MD, MPH



photo: Audrey Dempsey - Infinity

**Health Advocate Award
(Community Partners for
Better Health, March 2014)**

Healthcare Pioneer category
Charles Bernick, MD, MPH

Educator category
Jennifer Nash, PT, DPT, NCS, CEEAA

**Best of Las Vegas
(Las Vegas Review Journal,
March 2014)**

Favorite Male Las Vegas category
Jeffrey Cummings, MD, ScD

**Women to Watch
(VegasINC, February 2014)**

Kate Zhong, MD, Senior Director,
Clinical Research Development



**Employee of the Year
(Cleveland Clinic Lou Ruvo Center
for Brain Health, 2014)**

Rodney Anderson, Supervisor

Pat Mulroy Joins the Keep Memory Alive Board of Directors



“Pat Mulroy knows firsthand of the remarkable efforts of Cleveland Clinic Lou Ruvo Center for Brain Health through the treatment and care her family and friends have received,” said Larry Ruvo, Founder and Chairman of Keep Memory Alive.

Pat Mulroy now joins the Keep Memory Alive Board, where she will bring her remarkable skills and experience to bear on helping guide the Lou Ruvo Center for Brain Health. “When Chairman Larry Ruvo

invited me to join the board, I accepted immediately, knowing I was joining one of the most important medical organizations in the United States. Having the privilege of being able to work on a board that supports the most brilliant medical minds in our country in their quest to find cures for this century’s most debilitating diseases is an immense honor and profoundly humbling,” she says.

Following her retirement as General Manager of the Southern Nevada Water Authority where she negotiated numerous agreements with Nevada’s neighbors on the Colorado River and held regional and national leadership positions governing water

issues, Ms. Mulroy has been named Senior Fellow for Climate Adaptation and Environmental Policy at UNLV’s Brookings Mountain West and Distinguished Maki Faculty Advisor for the Desert Research Institute.

A resident of Southern Nevada for more than 30 years, Ms. Mulroy is active in the community. She currently serves on the Nevada Gaming Commission and has served on the Nevada Public Radio Board of Directors. Ms. Mulroy is actively involved with the Diocese of Las Vegas and has served on the Board of Regents of Bishop Gorman High School.

Her honors include the National Jewish Medical and Research Center’s Humanitarian Award, the University and Community College System of Nevada Board of Regents’ Distinguished Nevadan Award, and the Education Hero Award from the Public Education Foundation.

KEEP MEMORY ALIVE

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Please visit keepmemoryalive.org to learn how you can invest in memories and support the work of Cleveland Clinic Lou Ruvo Center for Brain Health