

New Thinking

Fall 2018
keepmemoryalive.org
clevelandclinic.org/Nevada

ABOUT THINKING

A Publication by Cleveland Clinic Lou Ruvo Center for Brain Health



A TOP U.S. Hospital



- 1 CARDIOLOGY & HEART SURGERY
- 1 UROLOGY
- 2 GASTROENTEROLOGY & GI SURGERY
- 2 NEPHROLOGY (KIDNEY DISORDERS)
- 2 RHEUMATOLOGY
- 3 ORTHOPEDICS
- 3 PULMONOLOGY
- 4 DIABETES & ENDOCRINOLOGY
- 4 NEUROLOGY & NEUROSURGERY
- 5 CANCER
- 5 GERIATRICS
- 5 GYNECOLOGY
- 9 OPHTHALMOLOGY
- 11 EAR, NOSE & THROAT



2018-19
U.S. NEWS &
WORLD REPORT
RANKINGS

Research, treatment and education for patients and families living with brain disorders
Alzheimer's • Huntington's • Parkinson's • Frontotemporal Dementia • Multiple Sclerosis • Multiple System Atrophy



Marwan N. Sabbagh,
MD, FAAN,
CCRI, Director,
Cleveland Clinic Lou
Ruvo Center for
Brain Health

First, I wish to express my gratitude for the generous welcome I have received as the new Director of Cleveland Clinic Lou Ruvo Center for Brain Health. I am excited to come to work every day and collaborate with the very best that Cleveland Clinic and Las Vegas have to offer.

People have been asking me two questions: *What is my background? What is my plan?*

Who Am I?

I was born in New York to immigrants from the Middle East. We settled in Tucson, Arizona, but I attended boarding school in New Jersey. Beginning with my college education at the University of California, Berkeley, my career has had a singular focus on Alzheimer's disease research and treatment.

I attended the University of Arizona College of Medicine and completed my training as a neurologist at the Texas Medical Center, Baylor College of Medicine. From 1995 to 1997, I did my fellowship in geriatric neurology and dementia under Robert Katzman, MD, and the late Leon Thal, MD. Dr. Thal worked closely with Larry Ruvo in creating the Lou Ruvo Center for Brain Health and this history creates a remarkable connection among Dr. Thal, me and the center. I was promoted from Instructor to Assistant Professor in the Department of Neurosciences, where I served from 1997 to 2000.

In 2000, I was recruited to be Director of Clinical Research at the Sun Health Research Institute (now Banner affiliated). Following a promotion in 2011, I served as

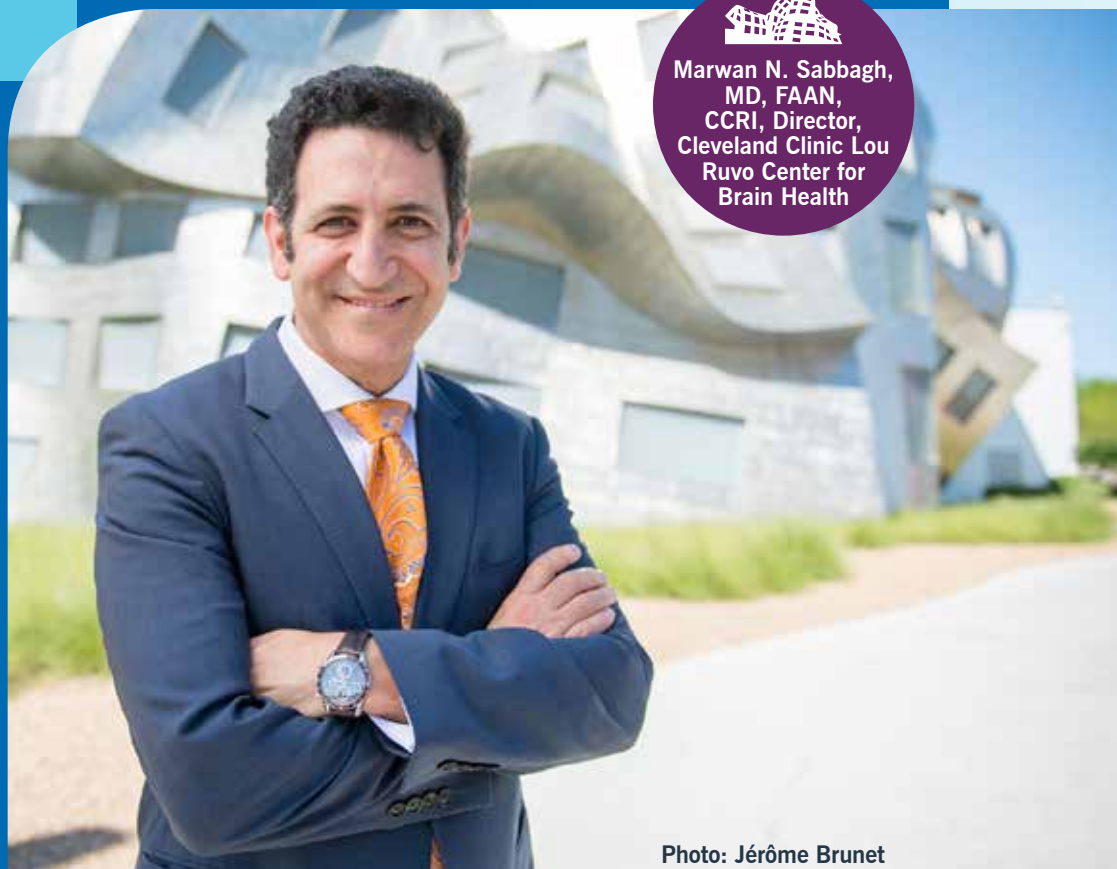


Photo: Jérôme Brunet

facility Director until early 2015. During those 15 years, I produced more than 300 peer-reviewed publications and four edited/ authored books, received multiple grants, and served as national or global principal investigator on many clinical trials. Before joining Cleveland Clinic this past May, I was Director of the Alzheimer's and Memory Disorders Division at the Barrow Neurological Institute.

What Am I About?

I feel that my 25 years of experience, my views and my expectations align well with Cleveland Clinic — a brand that embodies excellence in healthcare and innovation. Those are my values, too. I am diligent about being the best I can be, and I know that everyone I work with at our center shares this approach.

Why is that? Because patients can see their local doctor or specialist for care of their memory disorders, movement disorders or multiple sclerosis, yet they travel miles across town or across country to see our staff at the Lou Ruvo Center for Brain Health. People seek excellence in healthcare and we embody that.

In the next *New Thinking About Thinking*, I will share my perspective on my plan. There is excitement about the future and I can't wait to see it through with this community.

**Marwan N. Sabbagh,
MD, FAAN, CCRI**

*Director, Cleveland Clinic
Lou Ruvo Center for Brain Health*

*Camille and Larry Ruvo
Endowed Chair for Brain Health*

New Thinking

ABOUT THINKING

Cleveland Clinic Lou Ruvo Center for Brain Health
888 W. Bonneville Ave. Las Vegas, NV 89106 | 702.483.6000
keepmemoryalive.org | clevelandclinic.org/Nevada

● FEATURES

- 3 Jeffrey Cummings: A Lifetime Commitment to Healthier Brains for All
- 5 Recognized for Excellence
- 6 Cleveland Clinic Designated Parkinson's Foundation Center of Excellence
- 7 Training the Next Generation of Neurology Professionals
- 9 Keep Memory Alive's Power of Love Gala Delivers Again
- 12 Improv for Care Inspires Learning Through Intentional Play

● CLINICAL RESEARCH UPDATE

- 13 High-Profile Articles Represent Advances in Treating Brain Disorders
- 14 Rehab Team Builds Knowledge, Reputation Among Peers
- 15 HealthyBrains.org and You: The Perfect Pair
- 16 The Quest to Diversify Alzheimer's Studies
- 17 A Snapshot of Our Research: You, Too, Could Be Part of the Picture

● WORLD CLASS CARE

- 19 For Nancy Nelson, Diagnosis Is Only a Beginning
- 21 Expanding Access to Healthcare: A Global Commitment to Volunteerism
- 23 Center Adds Speech and Music Therapy to Maximize Quality of Life
- 25 A Need to Know: Unmasking and Treating "Obscure" Movement Disorders
- 26 Wellness Advice Helps People With MS Control Their Health

● CARING FOR CAREGIVERS

- 27 Knowledge Is Power for Caregivers Near and Far
- 29 Angie Ruvo Chair: Honoring Our Center's First Caregiver

● PHILANTHROPY AT WORK

- 32 Profile in Volunteerism: Anne Marie Martin
- 33 Dietmar Cordes Named Stacie and Chuck Mathewson Endowed Chair
- 34 Coming Together for Better Brain Health in Sports

● ON THE SCENE

- 35 Visitor Photo Gallery
- 39 Remembering Our Friend, Robin Leach: The Voice of Philanthropy 1941-2018
- 41 Friend-Raising and Fundraising: Together, We Can Do This
- 43 Saddling Up to Support Brain Health
- 45 Dementia Friendly Southern Nevada
- 46 Join Us for Fun and Fundraising: Upcoming Keep Memory Alive Events

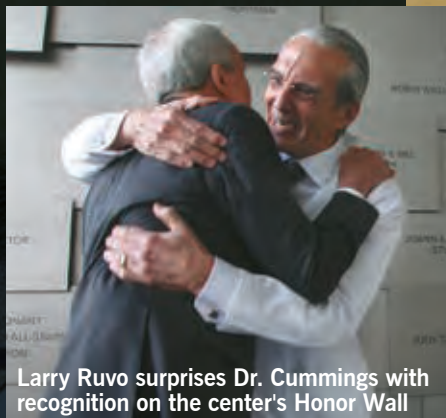
CONTENTS



Jeffrey Cummings: A Lifetime Commitment to Healthier Brains for All

“By creating a Frank Gehry-designed facility, I had delivered Yankee Stadium. I told Cleveland Clinic’s then-CEO Toby Cosgrove I wanted Babe Ruth,” says Keep Memory Alive Chairman and Co-Founder Larry Ruvo, who has shared this vignette with countless reporters, donors and visitors to Cleveland Clinic Lou Ruvo Center for Brain Health.

After a pause, Mr. Ruvo fields the expected question; *“Who is the Babe Ruth of the Alzheimer’s research world? Dr. Jeffrey Cummings!”*



Larry Ruvo surprises Dr. Cummings with recognition on the center's Honor Wall



Jeffrey Cummings, MD, ScD, joined the Lou Ruvo Center for Brain Health in summer 2010. He is one of the world’s foremost translational neuroscience researchers, integrating advances in neuroscience into Alzheimer’s disease (AD) diagnosis, differential diagnosis and therapeutics. He has pioneered characterization of the neuropsychiatry of AD and related neurodegenerative disorders through development of the Neuropsychiatric Inventory (NPI), used

in countless clinical trials and translated into 40 languages.

Dr. Cummings has published more than 725 peer-reviewed papers and 43 books on AD, neuropsychiatry and clinical trials. He is consistently ranked among the top 10 AD investigators worldwide.

A Dedicated Trialist and Teacher

A top clinical trialist, Dr. Cummings has been aggressive in leading clinical trials

in humans in an effort to discover new therapies for AD. His biomarker-based trials of the medications bexarotene and rasagiline are examples of recent efforts. He is a leader in industry-sponsored trials, including monoclonal antibodies, BACE inhibitors and agents with novel mechanisms of action.

Dr. Cummings published breakthrough studies of DM/Q for agitation in AD and pimavanserin for psychosis in



“Brain health is the key to our memories, our biography and ourselves. It is the treasure that has all our friends and family in it. Nothing is more important.”



Jeffrey Cummings, MD, ScD, Director Emeritas, Lou Ruvo Center for Brain Health

Parkinson’s disease. His publications have exerted wide influence in the research of neurodegenerative disorders (see page 13).

Dr. Cummings’ teaching has influenced numerous students and current AD thought leaders. He has received the Distinguished Scientist Award from the American Association of Geriatric Psychiatry (2010) and The Ronald and Nancy Reagan Research Award of the national Alzheimer’s Association (2008), among a long list of national and international recognitions.

Tributes for a Champion

2018 has been a big year for this renowned physician-scientist. In addition to stepping down in May as Director of the Lou Ruvo Center for Brain Health to make room for his hand-selected successor, Marwan Sabbagh, MD, Dr. Cummings, now Director Emeritus and serving in an advisory capacity, received two awards marking a lifetime of achievement.

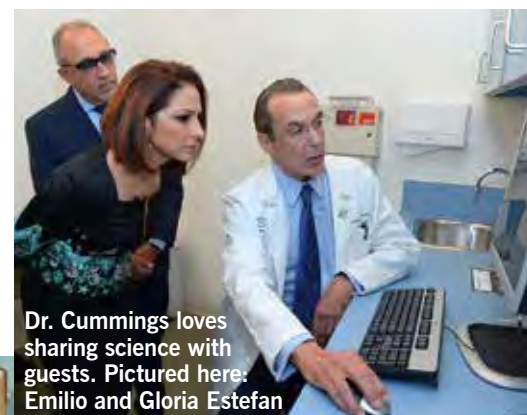
At the Alzheimer’s Association International Conference in Chicago in July, he received the 2018 Bengt Winblad Lifetime Achievement Award in Alzheimer’s Disease Research.

At its annual meeting in March, the International Society for CNS Drug Development (ISCDD) honored him with its 2018 Leadership and Achievement Award, noting, “Dr. Cummings’ research interests include the development of new treatments for brain disorders, with an emphasis on neurodegenerative diseases. Throughout

his distinguished career, he has impacted every aspect of the field, while always remembering to put patients and their families at the center of all he does.”

In his acceptance, Dr. Cummings said, “I am honored to be recognized by my peers and fellow researchers working toward better brain health. Brain health is the key to our memories, our biography and ourselves. It is the treasure that has all our friends and family in it. Nothing is more important.”

You, Dr. Cummings, are our treasure to remember always. Thank you for all you do for patients, for advancement of new treatments for families, for your keen interest in prevention and for your passion for our center.



Dr. Cummings loves sharing science with guests. Pictured here: Emilio and Gloria Estefan



President Bill Clinton tours Cleveland Clinic with Dr. Cummings and Larry Ruvo

Recognized for Excellence

In recent months, Cleveland Clinic Lou Ruvo Center for Brain Health and its staff have been honored by the community, peers and professional associations for clinical excellence and leadership in the field.

We celebrate these accomplishments.

Healthcare Heroes – Innovation Category

(Nevada Business Magazine, September 2018)

Aaron Ritter, MD

Board Member: Named to a

two-year term *(Alzheimer's Association Desert Southwest Chapter, June 2018)*

Marwan Sabbagh, MD

President's Award

(Clark County Medical Society, June 2018)

Cleveland Clinic Lou Ruvo Center for Brain Health

Abstract Award

(The International Society for Magnetic Resonance in Medicine, June 2018)

Summa cum laude

Xiaowei Zhuang

Health Advocate Award

(Community Partners for Better Health, May 2018)

Susan Farris, MEd

Best Abstract

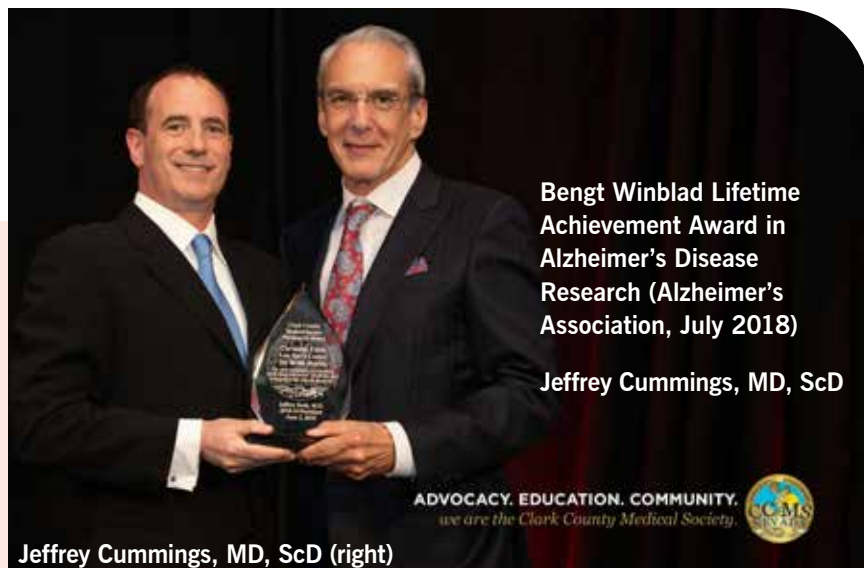
(Parkinson's Disease Study Group, May 2018)

Zoltan Mari, MD

2018 Clinical Instructor of the Year

(University of Nevada, Las Vegas Physical Therapy Class, May 2018)

Christy Ross, PT, DPT, GCS, MSCS, CDP



Jeffrey Cummings, MD, ScD (right)

Bengt Winblad Lifetime Achievement Award in Alzheimer's Disease Research (Alzheimer's Association, July 2018)

Jeffrey Cummings, MD, ScD

2018 Health Care Headliners – Research Category

(VegasINC, April 2018)

Carrie Hersh, DO, MSc

Employee of the Year

(Cleveland Clinic Lou Ruvo Center for Brain Health, April 2018)

Elaine Pienschke

2018 Leadership and Achievement Award

(International Society for CNS Drug Development, March 2018)

Jeffrey Cummings, MD, ScD

Top Docs 2018

(Vegas Seven, February 2018)

Charles Bernick, MD, MPH

Jeffrey Cummings, MD, ScD

Dylan Wint, MD

Diversity Leadership Program

(American Academy of Neurology, 2018)

Dylan Wint, MD

Board of Trustees

(Clark County Medical Society, 2018)

Dylan Wint, MD

Community Board

(Dignity Health, 2018)

Dylan Wint, MD

Elected Treasurer, 2018-2021

(Society for Clinical Neuropsychology/Division

40 of the American

Psychological Association)

Justin Miller, PhD, ABPP/CN

2018-19 U.S. NEWS AND WORLD REPORT RANKINGS

For the third year in a row, Cleveland Clinic has been ranked the No. 2 hospital in the nation by *U.S. News & World Report*, while retaining its position as the nation's No. 1 hospital for cardiology and heart surgery for the 24th successive year.

The Lou Ruvo Center for Brain Health is part of neurology & neurosurgery, which moved from No. 6 to No. 4 this year, receiving its highest ranking ever. For more information, go to clevelandclinic.org/usnews. To make an appointment, call 702.483.6000.

In all, 14 Cleveland Clinic specialties earned national rankings, including 12 specialties that ranked among the top five nationwide (see table to the right).

Cardiology & Heart Surgery	1
Urology	1
Gastroenterology & GI Surgery	2
Nephrology (Kidney Disorders)	2
Rheumatology	2
Orthopedics	3
Pulmonology	3
Diabetes & Endocrinology	4
Neurology & Neurosurgery	4
Cancer	5
Geriatrics	5
Gynecology	5
Ophthalmology	9
Ear, Nose & Throat	11



Cleveland Clinic Designated Parkinson's Foundation Center of Excellence

This summer, Cleveland Clinic joined the Parkinson's Foundation Center of Excellence (COE) network comprising 45 leading academic medical centers. Each year, these centers collectively serve more than 120,000 individuals diagnosed with Parkinson's disease. The designation includes Cleveland Clinic's main campus in Ohio as well as locations in Las Vegas, Nevada; Weston, Florida and Abu Dhabi, Dubai.

The Las Vegas location played a pivotal role, with COE Co-Director Zoltan Mari, MD, leading the effort to draft and submit the application to the Parkinson's Foundation. Collaborating with Dr. Mari was his main campus colleague, COE Co-Director Hubert Fernandez, MD.

It Takes a Team

According to the Parkinson's Foundation, this sought-after designation identifies hospitals and academic medical centers with specialized teams of neurologists, movement disorders specialists, physical and occupational therapists, and mental health professionals at the leading edge of medications, therapies and innovations in Parkinson's disease.

"The Center of Excellence designation recognizes the leaders in providing high-quality Parkinson's care," says John Lehr, President and Chief Executive Officer of the foundation. "The Parkinson's Foundation will continue to expand our reach across the country to ensure that every person diagnosed with Parkinson's disease has access to treatments that will improve their quality of life today."

Demanding Criteria

Every Center of Excellence designation is based on a rigorous application and peer review process. Each COE must:



- See at least 700 unique patients with Parkinson's disease annually
- Conduct research relevant to Parkinson's disease and/or conduct clinical trials for Parkinson's disease
- Provide exemplary team care, including a neurologist with training in movement disorders, nurse, social worker, physical therapist, occupational therapist and speech-language pathologist
- Promote access to wellness programs for patients
- Facilitate educational events for patients and families

"This recognition reflects the tireless and dedicated effort of our entire team across the Cleveland Clinic health system," says Dr. Mari, Ruvo Family

Chair and Director of the Parkinson's Disease and Movement Disorders Program at the Las Vegas location. "We will carry this designation with pride, and it will re-energize us to reach even greater heights in providing compassionate care, offering the latest in research and clinical trials, and continuing to reinvent how we treat Parkinson's disease."

Expansion of the Parkinson's Foundation Center of Excellence network ensures that more people have access to the best Parkinson's disease care — including right here in Nevada, where our center is the only one in the state to have been included in this designation.

To schedule an appointment with a member of our movement disorders team in Las Vegas, call 702.483.6000.

Training the Next Generation of Neurology Professionals

FELLOWSHIP PROGRAM PROVIDES MULTIDISCIPLINARY EDUCATION

Great neurologists and neuroscientists aren't born, they're trained. Some receive their training at Cleveland Clinic Lou Ruvo Center for Brain Health, which offers fellowships to professionals seeking in-depth experience in neuroscience research and patient care. Upon receiving accreditation from the United College for Neurologic Subspecialties for a fellowship in behavioral neurology, we have been training fellows since 2014.

Training at a dedicated neurological center like the Lou Ruvo Center for Brain Health exposes fellows to a full range of disciplines, including clinical trials, social services and therapeutic treatments such as physical therapy, which they would not experience at general facilities.

Meet the current Lou Ruvo Center for Brain Health fellows:



ECE BAYRAM, MD, PHD
Research Fellow

Ece Bayram has ventured a long way to gain experience researching neurodegenerative diseases. While earning a medical degree and doctorate in neuroscience at Ankara University in Turkey, she decided to specialize in movement disorders. Her fellowship at the Lou Ruvo Center for Brain Health includes training in both movement disorders and Alzheimer's disease and "is helping to expand my knowledge of the field by learning about new disciplines like imaging. The center really values education and offers a lot of seminars," says Dr. Bayram.

Dr. Bayram is working on two studies: one on neuropsychology and Alzheimer's disease that uses neuroimaging and the other of a major Parkinson's disease symptom, freezing of gait. She is excited to be investigating Alzheimer's disease with renowned neuroscientist and Lou Ruvo Center for Brain Health Director Emeritus Jeffrey Cummings, MD, ScD.

She appreciates the center's focus on collaboration: "I enjoy being part of a team and also working with researchers outside of my projects. It's so different from Turkey, where you do everything on your own," she says.



LAUREN BENNETT, PHD
Clinical Neuropsychology and Sports Neuropsychology Fellow

A lifelong love of sports led Lauren Bennett to pursue a career in sports neuropsychology. Dr. Bennett, who received her doctorate in clinical psychology from the California School of Professional Psychology at Alliant International University, found that choosing a fellowship opportunity was easy: "Few places offer a fellowship in sports neuropsychology, and there's no program like the one at the Lou Ruvo Center for Brain Health. It's an ideal match with my career goals," she says.

In addition to seeing patients at the center, Dr. Bennett conducts assessments with active and retired athletes and works on sports-related research studies. One study, using data from the Professional Fighters Brain Health Study, examines patterns of self-reporting of head injuries and self-perception of concussion knowledge among fighters.

Dr. Bennett is also involved in a study that assesses athletes' speech samples to identify acoustic biomarkers and track changes across time.

"There are so many research opportunities and incredible mentors to help me choose what to pursue. I feel as if I won the lottery," she says.

Photos: Jérôme Brunet



HANNAH BRUNET, PHD
Clinical Neuropsychology Fellow

During her graduate work in clinical psychology at Palo Alto University in California, Hannah Brunet spent a year at the University of California San Francisco Memory and Aging Center, where she “became very motivated to learn about neurodegenerative diseases and help older adults optimize their brain health,” she says.

Her clinical neuropsychology fellowship at the Lou Ruvo Center for Brain Health provides “a perfect opportunity to learn from top-notch researchers and clinicians who are passionate about their work. That was a big draw for me to come here,” she says. She has found the center “a really welcoming, supportive place.”

While her fellowship is primarily clinical, she enjoys participating in research on gender differences in memory and psychiatric symptoms common in different types of dementia. Working with Social Work Manager Ruth Almén, LCSW, Dr. Brunet is evaluating an innovative caregiver intervention that uses improvisation to teach communication skills and empathy (see *page 12*).

“This program shows the center’s openness to new ideas,” she says.

FUNDING THE FELLOWS: DONOR RICK CHAPMAN

The fellowship program, so critical to the future of neurology, is funded by contributions from donors, including Diana and Rick Chapman of Las Vegas. Mr. Chapman, a retired business executive, got to know the Lou Ruvo Center for Brain Health after his mother was diagnosed with Alzheimer’s disease in Chicago and, seeking specialized care, he moved her to Las Vegas.

At his mother’s first visit with Dylan Wint, MD, who has training in both neurology and psychiatry, Mr. Chapman knew he’d brought his mother to the right place: “Everyone at the center went out of their way to make my mother feel comfortable. Dr. Wint was one of the kindest, most compassionate doctors I’d ever met.”

After meeting with the center’s development staff and learning that Dr. Wint directs the fellowship program, Mr. Chapman made a five-year commitment to support the program — a commitment he plans to extend.

“I realized the importance of having more trained doctors in this field. I also wanted to support the center, which has changed my perception of medical care in Las Vegas,” he says.

If you’re interested in funding an educational opportunity at the Lou Ruvo Center for Brain Health, contact our development team at 702.263.9797 or DonateNevada@ccf.org.



Keep Memory Alive's Power of Love Gala Delivers Again



Larry Ruvo welcomes guests to the gala

Some of the biggest names in the entertainment industry gathered on April 28 to enjoy the musical stylings of world-renowned singer **Michael Bublé** at Keep Memory Alive's 22nd annual Power of Love® gala in MGM Grand Garden Arena. The star-studded event raised funds and awareness for Cleveland Clinic Lou Ruvo Center for Brain Health and its fight against brain disease, including Alzheimer's, Huntington's and Parkinson's diseases; multiple sclerosis; and multiple system atrophy.

Michael Bublé delighted guests with favorites "Haven't Met You Yet" and "Feeling Good." The acclaimed crooner finished his set with a smashing rendition of the Beach Boys hit "God Only Knows." Celebrities who showed their support included actress **Marcia Gay Harden**; superstar **DJ Steve Aoki**; Planet Hollywood resident **Pitbull**; Bar Rescue host **Jon Taffer**; Mötley Crüe lead vocalist **Vince Neil**; songwriter and vocalist **Kenny "Babyface" Edmonds**; and reality star **Scheana Shay**.

Recognizing a Medical Superstar

Keep Memory Alive Co-Founder **Larry Ruvo** presented **Toby Cosgrove, MD**, Cleveland Clinic Executive Adviser, with specially designed artwork in appreciation and recognition of his support and partnership. Dr. Cosgrove stepped down as Cleveland Clinic President and Chief Executive Officer at the end of 2017.

Continuing its vibrant history of providing the finest cuisine, wine and spirits, the Power of Love® gala showcased a dinner prepared by legendary chefs **Jean-Georges Vongerichten** and **Wolfgang Puck**, who has participated in every gala since its inception.

Guests bid on one-of-a-kind experiences during the event's signature live and silent auctions. Items auctioned included a week-long stay in Cirque du Soleil Co-Founder Guy Laliberté's 21,000-square-foot home in Hawaii, a sailing adventure off the coast of Australia aboard the ultra-luxurious MY Texas superyacht, a private tennis lesson with Stefanie Graf and Andre Agassi, and dinner with rock star Jon Bon Jovi in the Hamptons.



(L-R) Larry Ruvo, Nicole Pantenburg, Kenny "Babyface" Edmonds, Camille Ruvo and Marcia Gay Harden



(L-R) Larry Ruvo, Dr. Toby Cosgrove, Dr. Mihaljevic, Eloise and Jean Paul DeJoria

Delos M. Cosgrove, MD, with Tomislav Mihaljevic, MD



“Cleveland Clinic Lou Ruvo Center for Brain Health is one of our nation’s most powerful assets in the fight against brain disease.”
Tomislav Mihaljevic, MD
CEO & President, Cleveland Clinic

“Today, Cleveland Clinic Lou Ruvo Center for Brain Health represents humanity’s best hope against movement disorders and diseases of the aging brain.”
Delos M. Cosgrove, MD
CEO & President, Cleveland Clinic (2004-2017)



Michael Bublé performs at the gala



Chef Jean-Georges Vongerichten



Chef Wolfgang Puck

INTERESTED IN OUR EVENTS?
You may purchase tickets online at keepmemoryalive.org for a variety of Keep Memory Alive events throughout the year or contact us anytime at 702.263.9797.

 **Cleveland Clinic**
Lou Ruvo Center for Brain Health

KEEP MEMORY ALIVE

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

■ — ■ — ■ — ■ — ■ — ■ —
ALZHEIMER'S | HUNTINGTON'S | PARKINSON'S
MULTIPLE SYSTEM ATROPHY | MULTIPLE SCLEROSIS



**POWER
OF LOVE[®]**

GALA 2018

**THANK YOU
TO OUR 2018 GALA SPONSORS**

Bill Edwards
PRESENTS, INC.


MGM GRAND
LAS VEGAS

 **MGM RESORTS
INTERNATIONAL[®]**

 **SOUTHERN GLAZER'S
WINE AND SPIRITS**

Dom Pérignon


TEQUILA
PATRÓN



BACARDI U.S.A., INC.

GREY GOOSE[®]
WORLD'S BEST TASTING VODKA


KEEPMEMORYALIVE.ORG ■ CLEVELANDCLINIC.ORG/BRAINHEALTH

Improv for Care Inspires Learning Through Intentional Play



“The practice of being unpracticed.” That’s how Kelly Leonard, Executive Director, Insights & Applied Improvisation, Second City Works, defines improvisation. It means “we have to respond to all kinds of new things every day. And sometimes, we have to respond to old situations in new ways,” he explains.

When Ruth Almén, LCSW, Cleveland Clinic Lou Ruvo Center for Brain Health Clinical Social Work Manager, heard those words from the stage at the 2017 Aspen Ideas Festival, her mind began racing with all the commonalities between classic improv, which has its roots in social work, and caregiving.

She wasn’t the first to make such a connection. According to Anne Libera, Director of Comedy Studies, Second City Works, “Improvisation for Care is designed to bring together caregivers in a safe, fun space to play together, be together and to share their stories.”

New Tools for the “Job”

That’s exactly what happened at the Lou Ruvo Center for Brain Health in Spring 2018, when 19 family caregivers fearlessly self-selected for the pilot class of Improv for Care, a collaboration among the center; Second City, the legendary comedy troupe out of Chicago; and Caring Across Generations, a national caregiver education and advocacy group.

Together, the organizations developed a syllabus for the six-week session, which was taught by two Las Vegas-based Second City alumni. Participants — all of whom are care partners to people in cognitive decline — learned how to apply the basics of improv to increase communication between themselves and a loved one, to celebrate the new experiences created together as a patient-care partner pair, and to better



care for themselves as a caregiver in the process.

“I witnessed caregivers who admit to struggling under the heavy burden of the ‘job’ suddenly become so present in the moment that they began to play,” says Ms. Almén. “They were willing to trust class members and instructors and, together, they had some incredible insights about the challenges of caregiving.”

Ai-jen Poo, Co-Director, Caring Across Generations, was delighted to see that Improv for Care fulfilled its creators’ intent as “a program that provides concrete tools to navigate the caregiving experience, to make it one that is as sustainable and nourishing as it can be.”

Help Sustain the Fun and Fulfillment

As with so many of the Lou Ruvo Center for Brain Health’s programs, Improv for Care was made available at no cost to



participants thanks to philanthropic support. If you’d like to learn how your support can make a difference, please contact us at 702.263.9797 or DonateNevada@ccf.org.

To receive a monthly calendar of educational events for patients, caregivers and the community, contact LouRuvoSocialServ@ccf.org.

High-Profile Articles Represent Advances in Treating Brain Disorders

Publishing is paramount in science and medicine, and critical to advancing understanding of diseases and developing new treatments. Study findings are published in scientific journals, such as *The Journal of the American Medical Association* and *The Lancet*, and are always “peer reviewed” by an external panel of scientists, which assures that the study is credible and accurate and meets professional standards.

Recently, *The New England Journal of Medicine* and *Neurology* — the journal of the American Academy of Neurology — featured articles on Alzheimer’s disease (AD) research led by Jeffrey Cummings, MD, ScD.

A Significant Trial of Alzheimer’s Drug

The *New England Journal* article reports results from a clinical trial of the drug verubecestat in patients diagnosed with mild-to-moderate AD. In previous studies, verubecestat reduced the level of a protein, amyloid-beta, that accumulates in the brain cells of people with AD. In comparison with patients who received a placebo, patients treated with verubecestat had decreased protein levels. However, they did not score better than the placebo group on cognitive assessment tests.

“This is a very important trial because it shows that lowering the toxic protein, amyloid-beta, after symptoms appear does not help patients’ cognitive function,” says Dr. Cummings, study co-author and Director Emeritus of the Lou Ruvo Center for Brain Health. “The best time



Jeffrey Cummings, MD, ScD

for treatment with this type of drug is likely before high levels of the protein accumulate in the brain.”

Dr. Cummings is the lead author of the *Neurology* article, which reports on a trial of the drug crenezumab in patients with mild-to-moderate AD. The drug was beneficial in patients with very mild disease, leading to a new trial of crenezumab currently under way at the Lou Ruvo Center for Brain Health under the direction of neurologist Charles Bernick, MD, MPH. The study is guided by the results of the trial reported by Dr. Cummings.

Probing a Promising Parkinson’s Drug

Meanwhile, Zoltan Mari, MD, Director, Parkinson’s Disease and Movement Disorders Program and Ruvo Family Chair, recently published in the prestigious *Nature Medicine* his team’s findings on a drug, NLY01, that has demonstrated the greatest potential thus far to protect brain cells in Parkinson’s animal models.

In this paper, for the first time, researchers present compelling evidence regarding the drug’s mechanism of action, which relates to a critical step of neuroinflammation — a step that we now understand underlies neurodegeneration, the pathological process responsible for neuronal death and disease progression in Parkinson’s disease.

Collectively, these scientists are shining a spotlight on our center’s novel research findings and our strides toward more effective treatments.

If you’re interested in supporting research at the Lou Ruvo Center for Brain Health, contact 702.263.9797 or DonateNevada@ccf.org.

Since Cleveland Clinic Lou Ruvo Center for Brain Health opened in 2009, its physicians and scientists have published more than 300 articles in leading scientific journals.



Zoltan Mari, MD

Rehab Team Builds Knowledge, Reputation Among Peers

Christy Ross, PT, DPT, GCS, CDP, MSCS and Sondi Facer, PT, DPT

To many families, a diagnosis of cognitive impairment calls to mind the “living death” of a loved one, marked by daily limitations and slow, irreversible decline over a prolonged period of time. At Cleveland Clinic Lou Ruvo Center for Brain Health, neurorehabilitation specialists and their patients are disproving this myth with evidence-based therapies designed to mitigate symptoms and enhance quality of life.

Moreover, the rehab staff has taken to a national stage to disseminate this knowledge, which has been gained in the clinic and through the team’s own research.

“Our team is out there publishing papers and speaking at conferences,” says Clinical Rehabilitation Manager Shaina Meyer, OTR/L, CDP, MSCS. “I’m proud that they are advancing the profession’s understanding of how to work with such a challenging disease.”

National Impact

Here’s a glimpse of the rehab team’s recent itinerary:

- At the American Physical Therapy Association’s (APTA) national meeting last February, Christy Ross, PT, DPT, GCS, CDP, MSCS, delivered two presentations on cognitive-based assessment and treatment strategies.
- Sondi Facer, PT, DPT, and Dr. Ross presented a poster at APTA on Huntington’s disease.
- Katy Conroy, OTR/L, CDP; Trevor Mahoney, PT, DPT, CDP, MSCS; and Dr. Ross addressed the inaugural Nevada Occupational Therapy Association and Nevada Physical Therapy Association Partners in Practice Conference in June.

In addition, Dr. Ross published a paper in the peer-reviewed journal *Topics in*



Geriatric Rehabilitation. The article outlines various tests that physical therapists can conduct to evaluate functional outcomes — such as mobility, balance and gait — in patients with cognitive deficits. There’s a dearth of information on this topic, Dr. Ross says, because “these people are often excluded from research. But we can test even patients who are severely impaired.”

Getting to Know You

At the Lou Ruvo Center for Brain Health, therapy sessions are one-on-one, allowing Dr. Ross ample opportunity to build rapport with patients, drawing out their life stories and seizing on particular interests. If a patient has a cat, for example, she might ask the person to pick up marbles from a box on the floor, thus simulating a litter box cleaning. This exercise also presents an opportunity for her to help the patient execute the task easily and safely.

“I learn so much about them,” she says. “In return, they’re teaching me how I can better serve them.”

She has team support in that endeavor: “My colleagues and I partner with our doctors, occupational therapists, speech therapists, music therapists and social



Trevor Mahoney, PT, DPT, CDP, MSCS



Katy Conroy, OTR/L, CDP

workers to care for the whole person (See page 23). We try to meet all the patient’s needs. We don’t treat just the disease here.”

To make an appointment with the neurorehabilitation team, call 702.483.6032.

HealthyBrains.org and You: The Perfect Pair

Half a million people around the world have visited HealthyBrains.org, a website and app developed by Cleveland Clinic Lou Ruvo Center for Brain Health. Of these, 17,600 have joined the site to receive regular strategies and tips for maintaining their brain health, with more than 10,700 indicating an interest in participating in research.

“Many people are afraid of developing dementia, but the good news is that there are well-established lifestyle changes people can make now to possibly reduce their risk of developing Alzheimer’s and other diseases that cause dementia,” says Kat Hartley, Project Manager for HealthyBrains.org. “Our app and website are simple, fun and provide personalized feedback about improving brain health.”

A Tool for Better Health

One of the first people to join the site was Bruce Bommarito, Vice President of International Marketing at Caesars Entertainment in Las Vegas, which provided the funding to start HealthyBrains.org.

“It made sense to me that a healthy lifestyle can help prevent dementia.



Caesars EVP Jan Jones Blackhurst
with Dr. Jeffrey Cummings



Bruce Bommarito
(middle), of Caesars
Entertainment with
HealthyBrains.org
representatives

I have 7-year-old twins and plan to live a long life,” he says.

Over the past three years, Mr. Bommarito has followed the site’s recommendations and is exercising more, eating a healthier diet, getting more sleep and practicing meditation.

“I feel significantly healthier than when I started,” he says.

Mr. Bommarito has done more than focus on his own health: He has been a HealthyBrains.org volunteer, recruiting Caesars employees and family members to join the site. Perhaps most importantly, he joined a clinical trial investigating the prevention of Alzheimer’s disease. HealthyBrains.org makes it easy for subscribers to learn about Alzheimer’s disease research studies.

Needed Now: Clinical Trial Participants

With the number of people living with Alzheimer’s disease expected to quadruple by the year 2050, the quest to find more effective treatments has become an urgent public health objective. Sadly, many Alzheimer’s disease trials fail to recruit enough participants to complete the study.

“The only path to more effective treatment is the clinical trial process. We need to use every means available to find the thousands of people needed to

participate in clinical trials,” says Aaron Ritter, MD, Director, Clinical Trials Program, at the Lou Ruvo Center for Brain Health. “My experience with HealthyBrains.org is that it has been a very effective means of getting people engaged and excited about participating in Alzheimer’s disease research.”

Being part of a trial may benefit participants, Ms. Hartley says: “We don’t know when there will be a cure or treatment to delay the onset of Alzheimer’s disease, but we do know that the first person to experience it will be a clinical trial participant.”

Mr. Bommarito has appreciated the trial’s thorough screening process: “It’s been the most impressive experience I’ve had in the medical system. Everyone is extremely professional, knowledgeable and nice. I’d do another trial in a minute,” he says.

The HealthyBrains team has interacted with more than 500 individuals who showed interest in participating in clinical trials while registering with HealthyBrains.org.

To find out how you or a loved one can join our group of “citizen scientists” and participate in our research, contact the Lou Ruvo Center for Brain Health at healthybrains@ccf.org or 855.LOU.RUVO or visit HealthyBrains.org today.

The Quest to Diversify Alzheimer's Studies

If you're an African-American 65 or older, you're roughly twice as likely as a Caucasian in that age group to have Alzheimer's disease or another dementia. For older Hispanics, the ratio is about 1.5 times to 1, according to the Alzheimer's Association.

Yet, minorities are woefully underrepresented in clinical studies of Alzheimer's disease, which affects an estimated 5.5 million Americans. That's why Cleveland Clinic Lou Ruvo Center for Brain Health created the Community Outreach Committee, a citizens' group dedicated to ensuring that study participants reflect the wide diversity seen in Nevada's population.

"Recruiting underrepresented populations is a huge challenge for Alzheimer's disease trials," says Aaron Ritter, MD, Director of the Clinical Trials Program at the Lou Ruvo Center for Brain Health. "Some 95 percent of studies comprise white, college-educated participants, which is a problem because we need to be able to apply findings from our studies to all individuals with Alzheimer's."

An Opportunity to Contribute

The Community Outreach Committee meets quarterly to discuss strategies to encourage underrepresented patient groups to participate in clinical trials.

Recently, the committee was tapped to help recruit research subjects for southern Nevada's first Center of Biomedical Research Excellence (COBRE). Founded in 2015 to jumpstart the biomedical research capacity of the region, COBRE unites researchers from the Lou Ruvo Center for Brain Health and the University of Nevada, Las Vegas (UNLV), who collaborate to probe brain changes in both Alzheimer's disease and Parkinson's disease.

There's ample reason to make COBRE a priority, Dr. Ritter points out: "Over the next 20 years, Nevada is expected to



see one of the largest increases in the United States in the number of people diagnosed with Alzheimer's disease. The COBRE study is about giving Nevadans the opportunity to contribute to our

understanding of Alzheimer's and Parkinson's diseases. It is our mission to ensure that people from all different backgrounds and cultures be inspired to contribute to the solution."

YOU HOLD THE KEY

You can contribute to the science of brain health disease by participating in this observational study.



You may be eligible for the COBRE Study if you:

- Are 55-90 years old
- Can complete an MRI scan

We need a variety of individuals spanning:

- Mild cognitive impairment
- Alzheimer's disease
- Parkinson's disease
- No memory or thinking problems

How does it work? Participants will be seen yearly to complete the following assessments:

- Brain scans
- Memory tests
- Lab work

If you wish, you can learn the results of your tests. No medication will be given during the study.

To see if you qualify, contact the Lou Ruvo Center for Brain Health at healthybrains@ccf.org or 855.LOU.RUVO.

A Snapshot of Our Research

You, Too, Could Be Part of the Picture

Why Research?

At Cleveland Clinic Lou Ruvo Center for Brain Health, we're not happy with the status quo:

- 250,000-500,000 individuals in the U.S. with multiple sclerosis (MS)
- 1 million with Parkinson's disease (PD)
- 5.5 million with Alzheimer's disease (AD)

These numbers only continue to grow, which presents an unacceptable outlook.

Our goal is not only to treat patients, but also to give them, their families and our community an opportunity to participate in clinical trials and research. In doing so, they help advance our knowledge of brain health and disease. Together, we can alter the future

We don't know when a cure for any of these disorders will be found, but one thing is certain: The first person to experience it will be in a clinical trial.

What happens in Vegas just might change the world. And you could be part of that change.

Doing Our Part: Joining With People Like You to Attack Brain Disease

Consider these ongoing clinical trials, all of which are open to new participants.

Prevention Trials: Trials aiming to prevent the onset of brain disease

Generation study: Can a medication reduce genetic risk of developing memory problems?

ARISE for MS: Can starting treatment promptly delay or prevent the onset of MS in people whose brain scans indicate MS may be developing?

Treatment Trials: Clinical trials of potential new drug treatments for individuals with brain disease

PRESENCE: Can a new treatment improve memory and thinking in PD?

LINGO: Can we alter the course of MS by rebuilding damaged brain cells (re-myelination)?

Ultimate: Can an infusion reduce MS attacks by slowing down immune system response?

YOU, TOO, CAN HELP



Many research studies require normal controls — people with no disease symptoms — to serve as a comparison against trial participants affected by the disease under study.

These four trials for disease-modifying therapies are attacking the disease process itself, seeking to stop its progression:

Mission AD: Can a pill that reduces amyloid plaque buildup in the brain help individuals with mild memory problems?

TANGO: Can the first study to use an anti-tau protein infusion slow the decline of cognitive and functional impairment in people with mild cognitive impairment (MCI)?

ARISE for PSP: Can an anti-tau protein infusion halt symptoms in progressive supranuclear palsy (PSP)? (See page 25.)

Nilo-PD: Can an approved cancer treatment slow symptoms of PD?

Observational Research: Studies contributing to our understanding of how the brain changes over time, comparing normal to abnormal aging to identify when, where and how things go wrong

ADNI: Look at how brain scans and other tests change in individuals with AD; perhaps the most influential study of AD ever conducted

BY THE NUMBERS

64

Projected percentage of Nevadans age 65 and older with Alzheimer's dementia by 2025. This rate places Nevada among the three fastest-growing states in the prevalence of AD.



Percent of potential AD drugs that fail during clinical trials

99.7

9,200,000

Number of fewer cases of AD in the U.S. by 2050, assuming even a modest, one-year delay in onset of AD by 2020

Number of seconds before yet another individual is diagnosed with AD

65

Enroll-HD: A study of people with Huntington's — an inherited disease — and their family members

COBRE: A National Institutes of Health (NIH)-funded study to enhance our understanding of aging across diverse populations (See page 16.)

Lifestyle: Research on the impact of life choices on brain health

EXERT: Can exercise slow the progression of memory loss in people with MCI?

HealthyBrains.org: An online community of individuals interested in receiving a free self-assessment and learning more about their brain health, with the opportunity to receive a monthly newsletter and join a database of potential research volunteers (See page 15.)

Take Action: You Can Help

Finding new treatments depends on having enough volunteers like you willing to participate. Here's how you can help:

- **Find out which trial is a match for you or someone you know:**
855.LOU.RUVO or healthybrains@ccf.org
- **Support us in advancing new treatments and discoveries:**
Contact our philanthropy team at 702.263.9797 or DonateNevada@ccf.org

2018 Alzheimer's Drug Development Pipeline



RIGHT HERE AT THE LOU RUVO CENTER FOR BRAIN HEALTH

70 Number of trials we have conducted since 2009, making the Lou Ruvo Center for Brain Health one of the largest AD clinical trials programs in the country. Now also conducting trials in movement disorders and multiple sclerosis

Number of AD drug treatments currently in the development pipeline (clinicaltrials.gov). Eleven have been studied at the Lou Ruvo Center for Brain Health. (See pipeline graphic.)

112

300 Number of scientific papers published by our staff since 2009 to advance the science of AD, PD, MS, neuropsychology, brain imaging, repeated brain trauma and chronic traumatic encephalopathy (CTE)

Number of "citizen scientists" — individuals just like you who have a brain and have been willing to use it to advance brain science by participating in our research

1,200

For Nancy Nelson, Diagnosis Is Only a Beginning

One of Nancy Nelson's fondest wishes is that "hope" and "Alzheimer's" be spoken together. She shared that aspiration with guests at a May 30 luncheon where she was honored as the 2018 Nevada Senior Citizen of the Year.

Presenting the award was Herbert E. Randall, EdD, Founder and Chair, Aging Services Directors Organization and Nevada Delegation of the National Silver Haired Congress. Ms. Nelson was nominated by Nevada Secretary of State Barbara Cegavske.

Ms. Nelson shares her mission of hope with many community organizations and individuals: from the Alzheimer's Association's annual conference, to Nevada Senior Services and Visiting Angels, to memory care community residents and their families, to occupational therapy students, and in educational presentations at Cleveland Clinic Lou Ruvo Center for Brain Health. She works tirelessly in memory of her father, who succumbed to Alzheimer's disease, and says it's important because her children will likely be affected. "Every day I look skyward and say, 'I'm sorry, Dad, I wish I'd known and done more.'


"It has snowballed into this thing that is much bigger than Nancy," she adds.

An Unwelcome Finding

Ms. Nelson has not escaped: She received a diagnosis of early Alzheimer's disease in 2013. Her reaction? "If you get a diagnosis, don't sit down and stop living. Get up, investigate and get tested again."

Believing strongly in research, she enrolled in COBRE, a longitudinal, observational study, at the Lou Ruvo




Nancy Nelson, 2018
Nevada Senior
Citizen of the Year,
poet and clinical
trial participant

Center for Brain Health (see page 16). It was through that study that she received a brain scan at no cost and learned that amyloid — a biomarker of Alzheimer's

disease — was present in her brain. Yet, her hippocampus, a region that often atrophies in Alzheimer's disease, had shrunk only slightly.

Nancy Nelson wrote and presented this poem as her acceptance speech at the 2018 Nevada Senior Citizen Awards luncheon on May 30.

FINDING GRACE

How and when does Grace appear
in a life that seems to be
in constant internal upheaval,
with many a daily change,
even changes within a diagnosis?

Feelings of no-I-don't, yes-I-do,
a busy mind that's uncontained,
where no one can possibly
survive the strong under-surface currents
of dementia variables,
or Alzheimer's disease, a condition I call the A's,
or Mild Cognitive Impairment,
a diagnosis of HOLD-ON ... and, just-you-wait!

Whichever it is . . . it continues methodically
dragging, pulling down
Five Million Americans,
Thirty Million globally,
relentless in its over-reach.

Years of first stages, unseen by the common eye.
Unimaginable . . . to those not diagnosed.
Just imagine hearing, "You have early onset Alzheimer's!"

And, hey!
the numbers are growing,
relentless in their flashy forward-ness.
By 2050 an estimated
Sixteen Million Americans,
One Hundred Sixty Million globally
will be looking for Grace amidst AD.

Gives no pleasure to think,
this kaleidoscope will perhaps encompass
You. A Loved One. Or a Dear Friend.
And then, it's you and yours looking for Grace
in a condition that provides none.

How can any one of us be expected to fathom Finding Grace,
when it's all about the losing of one's self?

Until it happens to us . . . it's only a guess.

Communication is Key!

With Dad on my shoulder, my family, bonus family, dear friends
and you, here with me today, I share my solace and resolve of
an Alzheimer's advocacy using words like HOPE and
ALZHEIMER'S spoken together.

"I never have said, 'I have Alzheimer's.'
I just say I've been diagnosed with it,
"explains Ms. Nelson. "When we say it,
we become it, and I don't want that.

"We have every responsibility to
ourselves, our children and grandchildren
to take action and do things to reduce
our risk. You have to be socially active,
eat correctly, be in tune and participate.
Research is critical."

Discovering Poetry

Nancy Nelson wants people to know that
a diagnosis isn't the end; it's a beginning.
For her, that new beginning involved
scribbling down the thoughts that were
waking her in the wee hours of the
morning. For the first time in her life,
she started formulating thoughts into
poems, some of which she published in
a collection called "Blue. River. Apple.",
the very words she was unable to recall
during her first neurological exam.

What's different about her insight as
someone with a diagnosis?

"I offer a bird's eye view of an outside
reality," she says. "If there's fear
associated with that reality, you need
to turn and face it. Just like if you hear
footsteps behind you, you're supposed
to turn and do your best to intimidate
that stranger."

MAKING A DIFFERENCE THROUGH RESEARCH

If you're interested in using your
brain to participate in research at
the Lou Ruvo Center for Brain
Health, contact us at 855.LOU.
RUVU or healthybrains@ccf.org.

Expanding Access to Healthcare: A Global Commitment to Volunteerism

Staff members at Cleveland Clinic Lou Ruvo Center for Brain Health provide care not only locally, but farther afield as well. Consider the experiences of three professionals who give of their time and talents beyond the center's walls.

What's in a Stove?

What Jenny Nguyen, MSN, APRN, witnessed when she joined the St. George Rotary Club's 2018 medical mission to Guatemala is that daily cooking over an open fire causes chronic respiratory illness, headaches, blurry vision and red eyes.

In just three days, the Rotary Club volunteers built 10 stoves engineered to vent outside the home, effectively reducing these symptoms among villagers. The

youngest to benefit from this endeavor? Children in carriers on their mothers' backs, who suffer from smoke inhalation even before learning to walk.

A nurse practitioner on the movement disorders team at the Lou Ruvo Center for Brain Health, Ms. Nguyen provided hygiene and infant resuscitation classes to eight midwives from different villages and primary care services for patients in Santa Apolonia and Patzun, indigenous villages a few hours outside Antigua, Guatemala. She dispensed donated medications to patients in need, and says her Rotary Club group donated 1,000 pounds of beans and toys, to the delight of local families.

"For me, the most meaningful moment of the trip was helping patients, many of whom had not received care in years but had walked for hours and stood in long lines just for simple things like vitamins and Tylenol that we were able to provide," says NP Nguyen.

Back to Basics

A PhD student at the University of Nevada, Las Vegas, Maileen Ulep-Reed, MSN, APRN, FNP-BC, has been on medical missions to Peru, Costa Rica, Nicaragua and, in 2018, to Mexico, where she delivered primary care services for a week.

"In one day, my youngest patient was one month old and my oldest 95," an age span that, she notes, is a stark contrast to her daily work as a nurse practitioner on the cognitive disorders team at the Lou Ruvo Center for Brain Health.

The team from Adventures in Life Ministry flew into Oaxaca and drove seven hours to Eloxochitlán, a small village whose residents are largely hard laborers. NP Ulep-Reed found they suffered most commonly from musculoskeletal-related pains and gastrointestinal issues induced by a lack of potable water. With bottled water being too expensive, most get what hydration they can from water boiled to make coffee. After a hard day in the field, disorders resulting from dry skin, as well as hypertension and diabetes from the introduction of a Western diet, are common.

Ms. Ulep-Reed dispensed anti-hypertensive and anti-diabetes medicines to those in need but, due to lack of donated supplies, could give only three months' worth to each patient. She hopes to return next year to monitor her patients' progress.

"It was slow going with translating from English to Spanish to the native dialect and back again," says NP Ulep-Reed. "Even so, I didn't anticipate how much



Jenny Nguyen, MSN, APRN, center, joined the St. George Rotary Club's 2018 medical mission to Guatemala





Maileen Ulep-Reed, MSN, APRN, FNP-BC, has been on medical missions to Peru, Costa Rica, Nicaragua and, in 2018, to Mexico.



of a difference primary care could make in this population. Just basic patient education, such as teaching people how to lift things properly via the legs rather than the back, was impactful.”

Across Town but a World Away

Since 2013, Charles Bernick, MD, MPH, has been volunteering a half-day a month at Volunteers in Medicine of Southern Nevada (VMSN), where he is currently the only neurologist. He sees patients with an array of neurological conditions, from seizures and headaches to numbness and tingling, a contrast to his focused specialization in cognitive disorders at the Lou Ruvo Center for Brain Health, where he is Associate Medical Director.

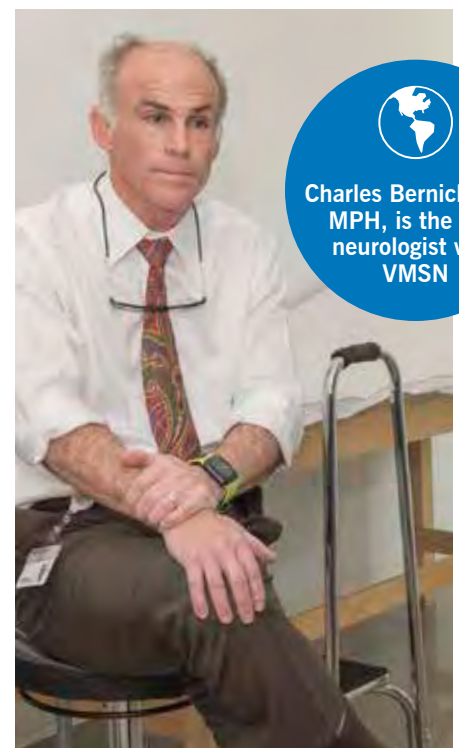

“There’s great satisfaction in using your expertise to help people. I’m giving such a little bit at VMSN but, to the individuals to whom we volunteers provide no-cost care, it is medical

attention they’ve long needed and deserve,” says Dr. Bernick.

Some cases are “easy fixes,” he says, such as individuals who experienced uncontrollable seizures prior to being diagnosed with epilepsy and receiving the needed medication, which is available to qualified patients at no cost at VMSN.

More challenging are recent immigrants whose stress only exacerbates their neurological conditions, such as the man who was forced to witness the murder of his family by rebels rampaging his village, and who arrived in the United States with both neurological and emotional issues.

“So there are rewards to being able to help, yet there’s the frustration that you can’t fix everything for everyone,” says Dr. Bernick. “People right here in our own community have needs that can’t be met.”

Charles Bernick, MD, MPH, is the only neurologist with VMSN

Center Adds Speech and Music Therapy to Maximize Quality of Life

Because they occur in the brain, neuro-degenerative diseases can impair critical functions such as speech, movement and memory. In many cases, different types of therapy can improve some debilitating effects of brain disease. Cleveland Clinic Lou Ruvo Center for Brain Health offers physical and occupational therapy, and recently introduced speech-language pathology (or speech therapy) and music therapy.

Our therapists are board certified, and use cutting-edge technology and customized exercises specifically designed for individuals with brain disorders.

“We are committed to helping our patients have the best quality of life so they can stay active and participate in activities they enjoy,” says Shaina Meyer, OTR/L, MSCS, CDP, an occupational therapist and Manager of Neurorehabilitation at the Lou Ruvo Center for Brain Health.

Here’s an overview of these therapeutic techniques and what they treat:

Occupational therapy – helps patients perform everyday activities with greater ease and independence, using education and physical and/or cognitive interventions. Occupational therapy is recommended when function is diminished due to cognitive issues, fatigue or physical impairment. It enables patients to better perform activities of daily living such as dressing and bathing, home chores such as preparing meals and cleaning, and work-related tasks such as typing.

Thanks to a grant from the E.L. Wiegand Foundation, the Lou Ruvo Center for Brain Health expanded its neurorehabilitation resources by adding new equipment to both its physical and occupational therapy programs.



Occupational Therapist Katy Conroy, OTR/L, CDP

Leah Fisher, MA, CCC-SLP, speech therapist



Physical therapy – helps people with brain disorders improve their recovery and achieve the highest level of physical function. It uses a variety of treatment techniques, new technology and evidence-based practices during individualized sessions. Interventions such as aerobic conditioning and strength and mobility training boost fitness and muscle strength for greater energy and well-being.

Speech therapy – addresses not only communication difficulties (speech, language, voice), but also swallowing, organizational ability, attention and memory, which can be impaired by conditions such as dementia and Parkinson’s disease. Speech pathologists use a range of techniques,

including voice and articulation improvement, aphasia/language therapy, cognitive retraining and swallowing therapy.

“Communication is a very powerful function. We help patients to improve their speaking ability so they can be social and interact with others. We also work with cognitive function and swallowing so patients can maintain their independence and quality of life,” says Leah Fisher, MA, CCC-SLP, speech therapist at the Lou Ruvo Center for Brain Health.

Music Therapist Dr. Becky Wellman, left, collaborates with Physical Therapist Dr. Christy Ross to facilitate Memory Movers, a fusion of music and exercise for individuals with cognitive impairment.

Ms. Fisher also educates caregivers on strategies for helping family members manage their condition: “I had one patient with Parkinson’s disease who was a very social person and was frustrated that others had difficulty understanding his speech. After therapy, his wife said, ‘You’ve brought back my husband’s voice.’”

Music therapy – uses the power and pleasure of music to improve cognitive function, lift mood and spirits, support gross and fine motor skills, and enhance communication.

“One of the great things about music is that it isn’t centered in any one part of the brain, so I can use music to work around the impaired parts of the brain to recapture memories and enable speech,” says Becky Wellman, PhD, music therapist at the Lou Ruvo Center for Brain Health, who offers individual and group sessions. “My number one priority is helping our patients discover who they are again and have moments of joy and clarity.”

Caregivers notice a difference in family members who attend music therapy sessions: “We sing together on the ride home after therapy and have a wonderful time. We look forward to music therapy every week,” says Merion Wahl, whose husband, Dick, has dementia.

SCHEDULE AN APPOINTMENT

To schedule a therapy session, please speak with your neurology provider, then call 702.483.6032.



HARD ROCK SUPPORTS MUSIC THERAPY

The Hard Rock Cafes are famous as venues for hearing great music. But through the Hard Rock Heals Foundation, the company also supports organizations that use music as a therapeutic tool. The foundation “looks to support programs where music directly affects health and well-being,” says Hard Rock Las Vegas Sales and Marketing Manager Lisa Hendrixson.

Thanks to Ms. Hendrixson, the foundation awarded a grant to the Lou Ruvo Center for Brain Health Music Therapy program.

“My mother passed away from Alzheimer’s disease, and I wish she had been able to get treatment at the center. I’m passionate about helping others with the disease, so I looked into opportunities to donate there,” Ms. Hendrixson says.

She visited a music therapy session at the center: “It was pretty amazing to watch. There were some very magical moments. It’s exciting that the foundation is supporting the Music Therapy program, and we helped make it happen.”



On behalf of the Lou Ruvo Center for Brain Health, Dr. Cummings, center, accepts a guitar from Lisa Hendrixson, to his right

A Need to Know: Unmasking and Treating “Obscure” Movement Disorders

Zoltan Mari, MD, sees many patients with “obscure” brain diseases. He understands why people use that term, but he always keeps one thought in mind: “To individuals with an ‘obscure’ disease, that’s their life. For them it is not ‘obscure,’ it’s an everyday experience.”

As Ruvo Family Chair and Director of the Parkinson’s Disease and Movement Disorders Program at Cleveland Clinic Lou Ruvo Center for Brain Health, Dr. Mari treats a wide range of neurological conditions for which we have no cure, from the more familiar Parkinson’s disease to dozens of movement disorders less known by lay people.

Neither Rare nor Recognized

Among them is progressive supranuclear palsy (PSP), a disease whose hallmark is the derangement of the protein tau. Accumulation of abnormal tau is also central to Alzheimer’s disease. Individuals with PSP struggle with controlling gait and balance, combined with an inability to look down, and many other symptoms as the disease progresses over time, including dementia. This condition leads to falls early in the course of the disease, which increase in frequency later on.

The Lou Ruvo Center for Brain Health has been named a CurePSP Center of Care, one of five inaugural centers across the country. Cleveland Clinic’s main campus also earned the designation.

That designation should help increase awareness of PSP, which is actually the second most common form of primary parkinsonism after Parkinson’s disease. It also has tremendous public health impact for the less effective symptomatic treatment and lack of availability of expert care. Devoting more resources to study and care for patients with rare diseases,



Zoltan Mari, MD,
Director, Parkinson's
and Movement
Disorders
Program

such as PSP and another devastating condition with similar prevalence, amyotrophic lateral sclerosis (ALS), helps us understand disease mechanisms and could lead to treatments applicable to other, related diseases.

Toward a Cure

At the Lou Ruvo Center for Brain Health, diseases like PSP merit the same specialized attention that better-known disorders receive. Under the center’s comprehensive care model, multi-disciplinary teams of specialists collaborate to help patients and their families. Neurologists, psychiatrists, physical, occupational, mental health and speech therapists, and social workers address physical, emotional, cognitive and behavioral needs.

With PSP, Dr. Mari believes that raising awareness is the critical first step toward early identification, improved quality of care and increased enrollment in clinical trials.

“If we don’t recognize these ‘obscure’ diseases, then we’ll never find a cure,” he says. “These patients deserve a cure.”

To make an appointment with a neurologist specializing in movement disorders, call 702.483.6000.

JOIN OUR RESEARCH: YOU MIGHT HELP US FIND ANSWERS

While PSP-specific treatments are not currently available or approved by the FDA, our center is currently enrolling patients in a novel clinical trial, ARRISE, to evaluate a potential new drug treatment.

For more information, contact 855.LOU.RUVO or healthybrains@ccf.org.



Wellness Advice Helps People With MS Control Their Health

Despite being diagnosed two years ago with relapsing-remitting multiple sclerosis (MS), David Gordon has continued working 60 hours per week as a restaurant manager while going to school. The 50-year-old husband and father of five deals with fatigue, sensitivity to heat and occasional numbness.

“It doesn’t mean that life is over,” says Mr. Gordon, a Las Vegas resident. Paying attention to his overall health allows him to keep up with his busy life. Since his diagnosis, he has adopted healthier eating habits and continues to be physically active. He gets through the day by staying hydrated and resting frequently.

Beyond Drug Treatment

Recent studies show that maintaining a healthy weight and appropriate level of activity helps individuals with MS retain more physical ability as their disease evolves.

Le Hua, MD, Director, Mellen Program for MS at the Lou Ruvo Center for Brain Health, Las Vegas, says numerous developments in the last 10 years have impacted treatment and slowed the progression of MS.



David Gordon with his wife on a family vacation



Carrie Hersh, DO, MSc, Assistant Director, MS Health and Wellness



“We have a better understanding of how to care for patients beyond just drug treatment,” she says. “That means attending to their health and wellness, their overall quality of life.”

In 2017 and again in May 2018, the Lou Ruvo Center for Brain Health hosted a free patient education series, “Health and Wellness in MS,” in collaboration with the Multiple Sclerosis Association of America, with support from Genentech.

“Get Up and Do Your Thing”

Carrie Hersh, DO, MSc, Assistant Director, MS Health and Wellness, and Program Director of the Health and Wellness Patient Education Series, says people with MS are looking for ways to tailor wellness advice to their own disease state.

“By conducting the series, we are able to provide key information that helps persons with MS gain a sense of control over their health, which is very important for self-efficacy,” Dr. Hersh says. “They can implement these lifestyle strategies on their own and make a difference for themselves.”

Mr. Gordon stresses the importance of being positive and proactive in maintaining health.

“Having MS definitely weighs on you,” he says. “But you have to try not to think about it too much. Exercise. Get therapy. Eat right and make sure you get up every day and do your thing.”

HEALTH AND WELLNESS CONSULTATIONS AVAILABLE



The Lou Ruvo Center for Brain Health offers health and wellness consultations as supplements to visits with a Cleveland Clinic MS neurology provider. Health and wellness consultations give physicians and patients an opportunity to discuss such priorities as nutrition, risk reduction for other comorbidities, exercise, sleep, complementary medicine, lifestyle choices, emotional wellness and pain as they relate to MS.

Call 702.483.6000 to make an appointment.

GO TO GATHERMS.COM

As part of its commitment to patient education, Genentech has launched a website where visitors can find local resources for those living with MS, as well as an opportunity to contribute missing information that might help future visitors. Visit gatherms.com.

Knowledge Is Power for Caregivers Near and Far

Imagine that you or a loved one has been diagnosed with a neurodegenerative disorder. Once this brutal fact sinks in, what's your next move?

Dylan Wint, MD, hopes you go back to school — figuratively. Dr. Wint routinely urges patients and caregivers to learn as much as they can. He places education among a spectrum of nonmedical interventions that constitute a core part of treatment and lead to better outcomes.

“Patients spend just a sliver of their time with me,” says Dr. Wint, NV Energy Chair for Brain Health Education at Cleveland Clinic Lou Ruvo Center for Brain Health. “Most of the time, they're either on their own or with their caregivers. So patients and caregivers need to be educated about these diseases because they're not carrying me around in their pocket.”

Furthermore, he notes, it makes his job as a neurologist more effective: “If someone comes in with a relatively sophisticated view of what's going on, we can talk on a level different than I could with someone coming in without any background.”

Help Is Here: A Breadth of Resources

With caregiver and community education, a well-stocked lending library, music and art therapy, the Lou Ruvo Center for Brain Health has a wealth of resources that inform and engage patients in managing their diseases.

“When I ask a patient to do some research, I don't have to tell them to look at Google,” Dr. Wint says. “I can call down



Dylan Wint, MD, NV
Energy Chair for
Brain Health
Education

to our library and ask, ‘Do you have a book on X, Y or Z?’ And there's a stack of books waiting when the patient arrives.”

Or, Dr. Wint might advise a patient to attend music therapy, which can reduce the agitation and aggression that characterize some neurological disorders (see page 23). Such services decrease the need for potent but risky medications and increase his arsenal of tools for addressing patients' day-to-day issues.

QUICK LINKS

Thanks to the support of generous donors, there's at least one educational opportunity available on our campus each and every weekday:
keepmemoryalive.org/educationcalendar

Get “on the list” to receive a monthly email about upcoming educational programs:

LouRuvoSocialServ@ccf.org

Learn more about the breadth of educational and support service:
keepmemoryalive.org/socialservices
or 702.778.6702

Librarian Verla Niebuhr, left, shares resources in the Lynne Ruffin-Smith Library

Can't Get Here from There?

For those who can't get to the Lou Ruvo Center for Brain Health's campus in Las Vegas, resources are available online:

A 24/7 Resource: HealthyBrains.org

Education can also benefit those seeking to preserve brain health. At HealthyBrains.org (see page 15), you'll learn about the Six Pillars of Brain Health and smart lifestyle choices you can make at home.

What does Dr. Wint recommend first and foremost?

"Aerobic exercise 30 minutes a day, without fail," he says. "That's the strategy with the strongest evidence for reducing the risk of developing a cognitive disorder."

Long-distance Caregiving? Our e-Library Can Help

The library is a great place to find out about the conditions treated at the Lou Ruvo Center for Brain Health and to become an informed, engaged patient or care partner.

Users of Cleveland Clinic Lou Ruvo Center for Brain Health's e-Library live all over the world from Las Vegas to Australia, but they have one thing in common, explains Administrative Program Coordinator, Caregiver and Community Education, Verla Niebuhr: "They're all caregivers, either for themselves or for a loved one."

In addition to those who are homebound and appreciate the convenience of 24/7 access to a world of information, many are long-distance caregivers seeking to understand what a loved one faraway might be experiencing. For example, the Las Vegas-based mother and East Coast-based daughter who are both caregivers for the father, and who read the same items from the e-Library and



hold their own "book club" over the phone as together, as they navigate the world of brain disease.

"We always make it as personal as possible," says Ms. Niebuhr, but she adds that the most common information long-distance caregivers are seeking is state-specific rules and regulations for eldercare, general information for a new diagnosis, and a comprehensive guide to caregiving.

For the latter, Ms. Niebuhr recommends the tried and true caregiver bible, *The 36-Hour Day*, but says its sheer size can overwhelm new caregivers and

finds that *Understand Alzheimer's: A First-Time Caregiver's Plan* can be more easily digested.

How to access the e-Library

Log on to keepmemoryalive.org/library and follow the link to the e-Library. Check out an electronic book and enjoy it on your desktop, iPad or e-reader.

If you require assistance, drop a note anytime to LouRuvoLibrary@ccf.org or call 702.483.6033 between 8:30 a.m. and 4:30 p.m. Pacific Time Monday through Friday to speak with a librarian.



INTERESTED IN SUPPORTING OUR LIBRARY

Ongoing growth of the Lynne Ruffin-Smith Library is made possible by philanthropic support, and our goal is to make available an electronic version of each of the more than 2,000 volumes we have in print. To learn how you can help, contact 702.263.9797 or DonateNevada@ccf.org.

Angie Ruvo Chair: Honoring Our Center's First Caregiver

Cleveland Clinic Lou Ruvo Center for Brain Health has created the Angie Ruvo Caregiving Chair to honor the mother of Keep Memory Alive's Chairman and Founder, Larry Ruvo, who along with his wife, Camille, presented the Chair to Angie on February 1, 2018, her 94th birthday. This tribute also acknowledges Camille's long-standing, tenacious fight to bring attention to the plight of all caregivers.

"Through her longevity, productivity and integrity, Angie Ruvo demonstrates the best of aging," says Marwan Sabbagh, MD, Director of the Lou Ruvo Center for Brain Health. "As the caregiver for the namesake of our center, she inspired the approach we use today. We recognize it's not just the patient but the entire family that lives with Alzheimer's disease."

The City's First Celebrity Chef

In the mid-1950s, Angie Ruvo and husband Lou opened the first "see-and-be-seen" restaurant in Las Vegas: the Venetian Pizzeria. It quickly became a favorite among locals and tourists alike, attracting a loyal following of power players and politicians for nearly 40 years.

The Venetian garnered a reputation for exceptional homemade Italian food and genuine hospitality. After 11 years in its initial location on Fremont Street,

the popular restaurant moved to West Sahara, expanded and became Venetian Ristorante.

The Venetian was known as the best restaurant in Las Vegas, and Angie Ruvo became the city's first celebrity chef, with world-famous visitors such as Perry Como, Vic Damone and Frank Sinatra among her clientele. Regulars described the restaurant as "just like having dinner in a friend's home" and a "piece of Las Vegas history that can never be replicated."

Always, Angie Ruvo displayed a spirit of warmth and giving. She never said no to a charity and routinely donated dinners at the restaurant for fundraising events.

Alzheimer's: An Unwanted Guest

When Lou developed Alzheimer's, Angie soon became his full-time caregiver. She navigated the challenges of this new role, picking up tips and tricks "on the job."

At the helm of the family restaurant, Angie Ruvo gave endlessly to the community; at home, she gave endlessly to her beloved Lou until his passing in 1994.

She instilled this spirit of philanthropy and hospitality in her son, Larry, who today is one of Las Vegas' leading philanthropists. In founding the Lou Ruvo Center for Brain Health and providing world-class care to Alzheimer's disease



Top left: Angie Ruvo with son, Larry, at the Venetian Pizzeria, circa 1958

Top right: Angie and her beloved husband, Lou

Bottom: The Venetian Ristorante

patients, he is helping to change the world in his father's honor.

A Rare Kind of Chair

To develop a better understanding of the impact of Alzheimer's disease, Lou Ruvo Center for Brain Health researchers depend on philanthropic support. Endowed chairs enable holders to fund new projects, including investigation into new treatments from which patients may benefit (see page 17). And, yes, a commemorative chair is traditionally presented to each endowed chair holder.

The Angie Ruvo Caregiving Chair — one of the few caregiving chairs in the world

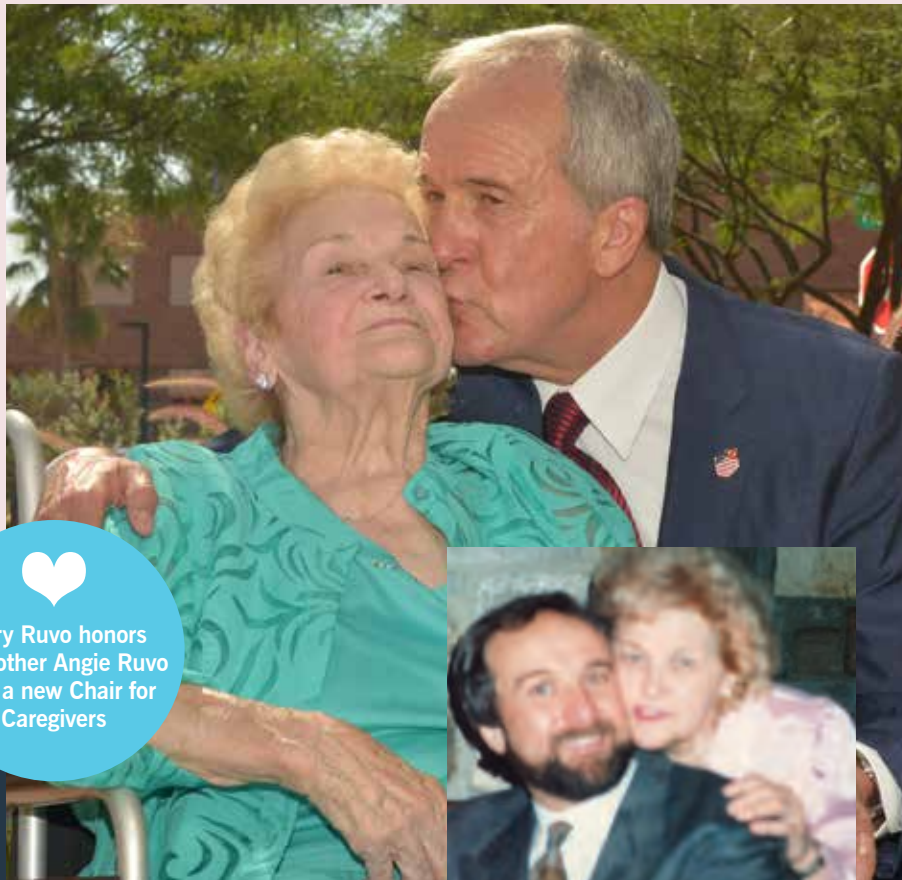
— demonstrates the Lou Ruvo Center for Brain Health's commitment to innovation and to better understanding the role and the effects of caregiving.

"We will use the Chair to attract a renowned researcher of caregiving who will advance our ability to respond to the needs of caregivers through new, evidence-based approaches," explains Dr. Sabbagh.

He hopes this research will also enhance the center's capacity to recruit for clinical trials through better understanding of how caregivers decide to have their loved ones participate in research and trials.



On February 1, 2018, Angie Ruvo celebrates her 94th birthday and is honored with the endowment of the Angie Ruvo Caregiving Chair



Larry Ruvo honors his mother Angie Ruvo with a new Chair for Caregivers

If you're interested in funding a Chair at the Lou Ruvo Center for Brain Health, please contact our philanthropy team at 702.331.7052 or DonateNevada@ccf.org.



Angie Ruvo with Larry at the 5th anniversary of Cleveland Clinic Lou Ruvo Center for Brain Health in 2014.

Inset: Angie Ruvo with Larry at the Venetian Ristorante circa 1985.

Giving Thanks Through the Expression of the Arts

JOIN US WEDNESDAY, NOVEMBER 7!

Plan to attend our annual Giving Thanks event and celebrate the season with patients, their families, Cleveland Clinic employees and friends in the community. All of your senses will be stimulated as you:

- Enjoy exciting performances by artists in the community
- Savor delicious seasonal food

SAVE THE DATE FOR OUR PATIENT & FAMILY HOLIDAY PARTY ON WEDNESDAY, NOVEMBER 7!



Our Community Outreach Team is Available to Address Your Group

Are you a member of a community, social or professional group in the greater Las Vegas area? Are you looking for an interesting speaker? Want to learn more about the social services offered at the Cleveland Clinic Lou Ruvo Center for Brain Health?

Our Community Outreach Initiative brings this useful information directly to you at no cost.

The presentation offers an overview of the range of services offered at the Lou Ruvo Center for Brain Health, in addition to more in-depth information about our free educational and support programs. Everyone is encouraged to serve as an ambassador, carrying the message to others affected by the neurocognitive diseases we treat.



To Schedule an Outreach Speaker:

- Presentations run 30-60 minutes and are available any day, time or location in the greater Las Vegas area
- No group is too small
- There is no charge
- Contact Caregiver and Community Education at LouRuvoSocialServ@ccf.org or 702.483.6055

Profile in Volunteerism: Anne Marie Martin

Anne Marie Martin was 12 years old when she received some advice from her father: “Anne Marie, when you give, do it because you can see someone needs help. Don’t ask them why they need it, just give what you can.” Apparently, she took those words to heart.

“For decades, people have told me I have an instinct for helping others even before they know they need it,” Ms. Martin says. “I try to use that gift every time I volunteer at Cleveland Clinic Lou Ruvo Center for Brain Health. So much of welcoming and caring for patients is recognizing what is needed.”

A Veteran Caregiver

“Annie,” as she prefers to be called, has served as a caregiver for her mother, who had lung cancer, and for her mother-in-law, who fought breast cancer for three years.

“I’d like to think I’m sensitive to caregiver needs because I’ve been there myself,” she notes.

Ms. Martin also has cared for a childhood friend with Alzheimer’s disease, and knows the pain of witnessing a loved one’s decline. Ms. Martin had always admired the woman for her “classy approach to life and family,” and says it was heart wrenching when her friend no longer recognized her.

Shall We Dance?

With the blessings and burdens of caregiving so ingrained, Ms. Martin beams with pride about patient and family feedback she has received during her five years as a volunteer at the Lou Ruvo Center for Brain Health: “Visitors say, ‘We never worry when we come here because we know we will receive the best of care throughout our visit.’”



She remembers greeting a proud woman who didn’t want to ask for help, yet seemed to be struggling.

“After a brief conversation, I connected her with a counselor and our librarian, feeling confident she would receive the help she needed, and at no cost,” Ms. Martin recalls.

Another memorable interaction occurred with a patient who heard music playing and asked Ms. Martin to dance. Upon seeing Ms. Martin on her next visit, the woman exclaimed, “Look! There’s my dance partner!”

A Friendly Face at the Door


Having volunteered in clinic operations, administrative areas, at fundraising

events and educational conferences, Ms. Martin says her favorite role is still opening the front door and greeting patients and families.

“It’s not easy because you don’t know who’s coming through the door and what challenges they’re facing but, no matter what, we treat everyone with dignity, class and respect,” she says. “And sometimes, we may even get to dance!”

For information on an array of volunteer opportunities at the Lou Ruvo Center for Brain Health, contact Volunteer Services at 702.331.7046 or mariank@ccf.org.




Dietmar Cordes, PhD
 was named **Stacie and**
Chuck Mathewson
 Endowed Chair for
 Brain Imaging

Dietmar Cordes Named Stacie and Chuck Mathewson Endowed Chair

published more than 10 articles in peer-reviewed publications and academic papers in 80 conference proceedings, and have won five research awards. Most recently, they published a pioneering study of Parkinson’s disease in the journal *Alzheimer’s & Dementia: Translational Research & Clinical Interventions*.

A Breakthrough Finding

The study compared functional MRI (fMRI) scans of people with early-stage Parkinson’s disease (PD) and people without the disease. The scans recorded functionally related regions of the brain in a resting state over a period of time. The research team analyzed the images using Empirical Mode Decomposition — an unusually precise and sensitive technique not ordinarily used in medical research. The analysis revealed, for the first time, that early-stage PD slows brain activity.

“It’s very exciting to have actually found a biomarker that shows changes in resting-state brain activity in early-stage Parkinson’s disease. This discovery may potentially enable earlier diagnosis and treatment, which will help patients,” says Dr. Cordes.

The Chair funding will enable Dr. Cordes and the team to pursue research on PD and Alzheimer’s disease without spending valuable time applying for grants, with no guarantee of long-term funding.

“This award is a wonderful gift. A Chair provides long-term stability to conduct state-of-the-art research. It will benefit the research team and, ultimately, our patients,” says Dr. Cordes.

In 2014, medical physicist Dietmar Cordes, PhD, came to Cleveland Clinic Lou Ruvo Center for Brain Health from Ryerson University in Toronto to start the Neuroimaging Research Program, which uses the center’s advanced superior-contrast magnetic resonance imaging (MRI) scanner to deepen understanding of neurodegenerative diseases and to identify biomarkers — indicators of disease — to aid in diagnosis and treatment.

Now, four years later, Dr. Cordes has been named the Stacie and Chuck Mathewson Endowed Chair for Brain Imaging, which recognizes his notable accomplishments. He and his six-member team have

A Donor Driven by Personal Experience

Stacie Mathewson received an unusual wedding gift from her husband, Chuck: a donation to Cleveland Clinic Lou Ruvo Center for Brain Health in a parent’s honor. Mrs. Mathewson’s mother developed early-onset Alzheimer’s disease at age 58 and died 12 years later.

Mr. Mathewson began supporting the center after seeing friends affected by Parkinson’s disease. By providing the funding for the new Stacie and Chuck Mathewson Endowed Chair for Brain Imaging, the couple is extending research on both diseases.

“Chuck and I believe it’s important to support Keep Memory Alive because we know it’s on an upward trajectory,” says Mrs. Mathewson. “Brain health has one of the world’s best champions in Larry Ruvo.”



Stacie and Chuck Mathewson

Coming Together for Better Brain Health in Sports

(L-R) UFC middleweight champion Luke Rockhold, UFC Hall of Famer Forrest Griffin, Charles Bernick, MD, MPH, and Lawrence Epstein at the Lou Ruvo Center for Brain Health in 2016

Lawrence Epstein, Senior Executive Vice President and COO, UFC, witnessed the ravages of declining brain health in his own family years before guarding brain health became a professional obsession.

Mr. Epstein remembers his paternal grandmother, affectionately referred to as “Little Momma,” being independent, dynamic, into fashion and “meticulous in every aspect of her life until, at some point, she completely fell apart.” Then there was his uncle, a true rocket scientist by profession, who came home one day declaring something must be wrong because “he could no longer complete basic math calculations in his head.”

Mr. Epstein sums it up: “It’s devastating to go through this process of memory loss with someone for whom you have incredible feelings and respect, and to watch that all get taken away by what is today an incurable, irreversible disease.”

Inspired to “Be First”

His father, Kenny Epstein, was among the founding board members of Keep Memory Alive who attended the 1995 inaugural memorial dinner for Lou Ruvo that grew into the annual Power of Love® gala (see page 9).

“My father, Bobby Baldwin, Larry Ruvo and everyone at that dinner had some connection with the disease and was on a mission to do something about it,” says Lawrence Epstein, who has wholeheartedly embraced the resolve to pioneer better brain health for athletes, for their families and for everyone.

“At the UFC, we have eight brand maxims,” Mr. Epstein explains. “One is ‘Be First,’ and we feel we have to be first in everything with respect to protecting athletes — from drug testing, to providing



health insurance for fighters to caring about brain health.”

He is quick to note that as Las Vegas adds “professional sports mecca” to its lock on entertainment capital of the world, “The city shouldn’t just be a leader in sporting events themselves, but also in the technology and medicine that relate to those sports. Las Vegas should be a leader in brain health.”

Answering the Question

That was the theme of the Sports Coalition for Brain Health kickoff meeting that Lawrence Epstein co-hosted in May at Cleveland Clinic Lou Ruvo Center for Brain Health with Associate Medical Director Charles Bernick, MD, MPH.

Mr. Epstein addressed an audience that comprised his peers — senior executives at other Las Vegas-based sports entities — saying, “People ask all of us, ‘What are you doing about the brain health of your athletes?’ Collaborating with Cleveland Clinic is a benefit. It gives you that answer.”

The second benefit that particularly resonates with Mr. Epstein, given his family’s history of memory loss? “Athletes and their families have told me, ‘We really appreciate that the UFC is investing in brain health.’”

Pioneering organizations represented at the May 18 inaugural meeting of the Sports Coalition for Brain Health:

Cleveland Clinic Lou Ruvo Center for Brain Health, Co-Host

UFC, Co-Host

Nevada State Athletic Commission

Professional Bull Riders, Inc.

Real Results Fitness

The Rebel Athletic Fund

Top Rank, Inc.

Vegas Golden Knights

Visitor Photo Gallery

Photo: Bryan Steffy for Cleveland Clinic Lou Ruvo Center for Brain Health



Larry Ruvo gratefully accepts a check from the cast of *On Your Feet*

A Gift From Gloria and Emilio Estefan's *On Your Feet* Sustains Supportive Services for Those Living With MS

On September 6, amidst a medley of Gloria Estefan's greatest hits and confetti raining down on the cast of *On Your Feet* at the Smith Center for Performing Arts in Las Vegas, Larry Ruvo, Chairman and Founder of Keep Memory Alive, was called onstage. As the actors playing Gloria and her father, Major José M. Fajardo, presented a check of support from funds raised by the Broadway musical celebrating Ms. Estefan's life and career, Mr. Ruvo proclaimed, "Major, you're still on your feet!"



Major José M. Fajardo

The funds represent ongoing support from the Estefans, who in 2015 established the Major José M. Fajardo Patient Services Program in honor of Ms. Estefan's father, who suffered from multiple sclerosis (MS) developed during his service in Vietnam.

The Fajardo Patient Services Program represents the comprehensive approach to MS that is a hallmark of Cleveland Clinic Lou Ruvo Center for Brain Health, addressing patients' medical, emotional and quality-of-life needs.

As a caregiver for her father at the end of his life, Gloria Estefan has firsthand experience of the compelling need for a comprehensive approach to MS treatment to help patients and their families.

"What happens with a brain disease is very difficult for the patient and for the family. During my father's illness, I put on a brave face, but it was very, very tough on me and my family. Had I had the type of help and support that this patient service program provides, it would've been a lot easier," Ms. Estefan said as she and husband Emilio Estefan presented the initial gift in 2015.



On June 4, acclaimed Canadian singer-songwriter, broadcaster, and author, Jann Arden, addressed an audience of patients, caregivers and community.



Ms. Arden has written five books, the most recent being the best-selling *Feeding My Mother – Comfort and*

Laughter in the Kitchen as My Mom Lives with Memory Loss. Her vignettes of personal experiences in caregiving truly resonated with the audience. Thank you, Jann, for a wonderful event!



Siegfried celebrates his birthday with Roy, Mayor Oscar Goodman, and the unveiling of a plaque



Michelle Moya with Jody Ghanem



Robert and Carol Priddy with Jody Ghanem



Veterans assemble for VA Secretary David Shulkin's visit (second from left)



Marwan Sabbagh, MD, with Jann Arden



Larry Ruvo welcomes Sheriff Joe Lombardo



Councilwoman Michele Fiore visits with Jody Ghanem



Longtime Keep Memory Alive supporter Chef Scott Conant has cooked at our Power of Love® gala and at intimate events in the Keep Memory Alive Event Center, and has donated his winnings from the TV show, Chopped. He stepped up his support yet again with the opening of his restaurant Masso at Red Rock Hotel and Casino.

Visitor Photo Gallery *continued*



Larry Ruvo welcomes Louis Shapiro, Bryan Kelly, Emil Calcagno



Steve Vandenberghe, far right, and Gayle Anderson, next to right, and guests



Dr. Jeffrey Cummings with Louise and David Reese



Arlene Chaplin visits



Carole Wightman at the Honor Wall



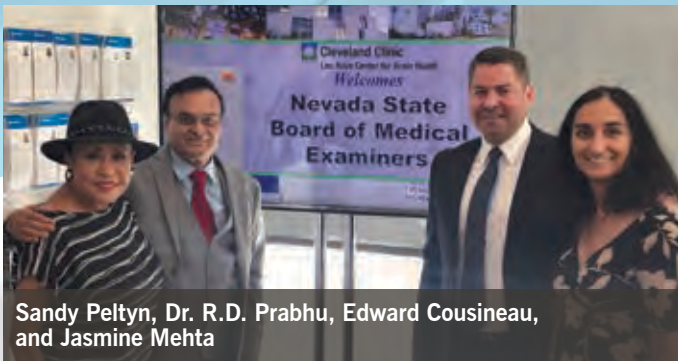
Silvestri family at the Honor Wall



Don Khul from Sotheby's



Jeff Daly and George Dennis (right)



Sandy Peltyn, Dr. R.D. Prabhu, Edward Cousineau, and Jasmine Mehta



Larry Ruvo with Mr. Jean-Luc Biamonti and Bill Timmins



Members of the Professional Bull Riders (PBR), including PBR CEO Sean Gleason and riders Cody Nance and Kaycee Feild, visited the Lou Ruvo Center for Brain Health on May 3. They toured the facility and met with staff and Keep Memory Alive Co-Founders Larry and Camille Ruvo, learning more about the Lou Ruvo Center for Brain Health's efforts to help keep athletes safe from brain injury.



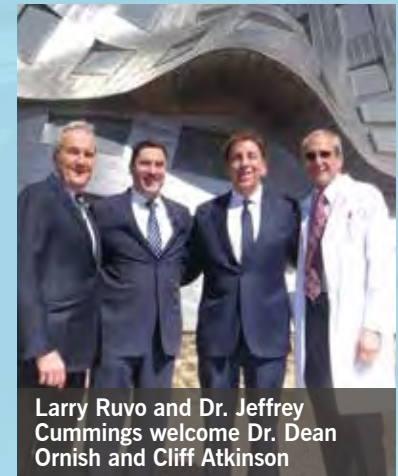
Both the center's Professional Athletes Clinic and its Professional Fighters Brain Health Study — a study measuring the effects of long-term, repetitive head trauma in more than 800 individuals — have the potential to be applicable to bull-riders.



Cirque du Soleil with Jody Ghanem



Barbara Molasky, left, and Lindsay Harper



Larry Ruvo and Dr. Jeffrey Cummings welcome Dr. Dean Ornish and Cliff Atkinson



Jody Ghanem welcomes Richard Ditton



Arizona College School of Nursing

Larry Ruvo joins Robin Leach at the unveiling of his plaque on the Keep Memory Alive Honor Wall



Remembering Robin Leach

THE VOICE OF PHILANTHROPY

1941-2018

For staff and supporters of Cleveland Clinic Lou Ruvo Center for Brain Health, the passing of Robin Leach on August 24, 2018, was like the loss of a close family member.

Mr. Leach donated his fee for commercial appearances and voice-overs to the Lou Ruvo Center for Brain Health, and served as the voice of the Power of Love® gala for two decades.

“It was a significant amount of money,” Keep Memory Alive Chairman and founder Larry Ruvo told the *Las Vegas Review-Journal*. “He really believed in helping people. I have lost a friend and mentor.”

In the course of a 60-year career, Mr. Leach helped launch “Entertainment Tonight” and the Food Network and hosted the internationally syndicated “Lifestyles of the Rich and Famous” for 14 years. Less well known, perhaps, was how he parlayed his own fame to benefit others.

“Nobody used celebrity more than Robin did,” Mr. Ruvo recalled. “He had the ability to set up auction items; he would call in celebrity friends to appear at the Power of Love gala. He was the emcee and did voice-overs. He was the conductor, leading the symphony.”

An Excerpt From an Interview With Robin Leach

“Make magic like you’ve always made magic,” celebrity journalist Robin Leach encouraged Siegfried Fischbacher as the two gentlemen departed a lunch meeting at Wolfgang Puck’s Spago in Las Vegas.

“I’ll ask him, but I don’t think he’ll do it,” replied Mr. Fischbacher.

He had reason for doubt. In 2003, Mr. Fischbacher’s partner, Roy Horn, was critically injured and his career ended in an onstage incident involving Montecore, a white tiger that was part of Siegfried & Roy’s act.

But two hours after the Spago lunch, Robin Leach received a call from Siegfried reporting that he and Roy would indeed return to the stage for one final performance, bringing Montecore with them. Thus, the headline entertainment was solidified for Keep Memory Alive’s 2009 Power of Love® gala.

“For me, that was the most emotional and moving night of all our Power of Love galas,” says Mr. Leach.

Robin Leach met Keep Memory Alive Chairman and founder Larry Ruvo at a dinner Wolfgang Puck hosted for Keep Memory Alive. When the sound system failed just before Steve Lawrence and Eydie Gorme were to host the auction, Mr. Leach volunteered his booming tones to take over in the emergency. Ever since, he has continued to propose innovative ways to support Keep Memory Alive.

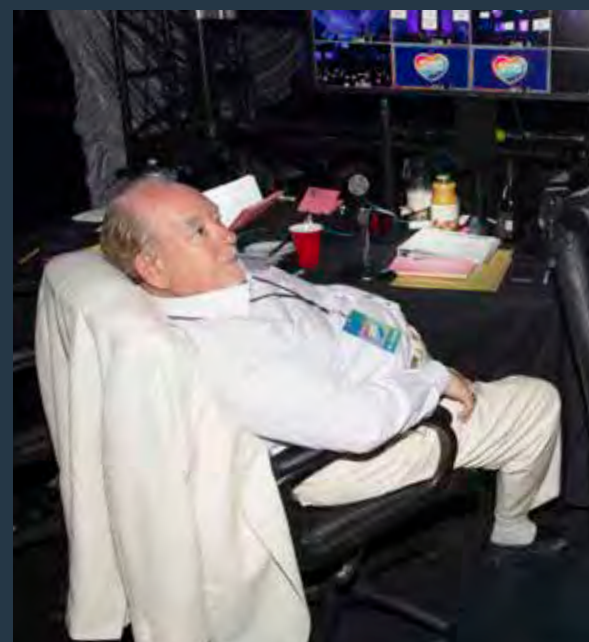
Since relocating from New York to Las Vegas in 1999, Mr. Leach has assisted Larry Ruvo in wrangling entertainment and chefs, lent his voice as an auctioneer or emcee, and persuaded his Rolodex of the rich and famous to donate unique items for auction. One of Mr. Leach’s favorite gala memories is watching the fear on friend Barry Manilow’s face change to joy when he, too, got caught up in the moment as attendees rushed the stage to dance with him.

Mr. Leach admits he’s caught up in the spirit of Keep Memory Alive: “I’m proud to know the doctors and researchers who are determined to put Las Vegas on the map for a disease that affected friends so many years ago.”

“Philanthropy, as with anything you do well in life, has to be done with passion,” Mr. Leach affirms. “When you make the initial commitment, you have to be prepared to go the whole nine yards. Larry Ruvo refused to accept the word ‘no.’ He was determined not to abandon his dream, which has now been realized because of intense passion and belief.

“When I look back over these 59 years of being in the celebrity journalism business, I started out telling stories, and here I am still telling stories. Now, they’re about the wonderful achievements of Dr. Jeffrey Cummings and Larry Ruvo at Cleveland Clinic. The best story is yet to come: the cure.”

– From the Fall 2015 Issue of *New Thinking*



top: Robin Leach at the 2016 Power of Love gala with then Cleveland Clinic CEO Toby Cosgrove, MD (Photo: Tom Donoghue)

middle: Robin Leach in the gala command center before addressing gala guests from backstage as the Voice of God at the 2015 gala

bottom: Chef Scott Conant in the Keep Memory Alive kitchen with Robin Leach (Photo: KellyCreative)

Friend-Raising and Fundraising: Together, We Can Do This

Over the past 20 years, Keep Memory Alive has raised more than \$250 million, thanks to individuals and organizations that have approached us with ideas for creating and hosting events to benefit this philanthropic entity.

Often, these generous event organizers are personally connected with our mission, having been touched by brain disease through friends or family. For others, it's an opportunity to showcase their companies' offerings while raising funds for our community.

Whether it's the first time you've contemplated planning an event or you're a seasoned expert hosting a golf outing or a cocktail party, planning and logistics are vital to your success — and just

might be easier than you think. Keep Memory Alive supports event hosts in the community. We've put together a Community Fundraising Toolkit to guide you through every step in creating and hosting a memorable event to benefit Keep Memory Alive, and we're launching an online campaign management tool.

All third-party events, large and small, play a significant role in raising much-needed support for Cleveland Clinic Lou Ruvo Center for Brain Health's innovative medical research, social work, and caregiver and community education programming.

Here are recent examples of events in the community that raised funds for Keep Memory Alive. We extend our gratitude to all the organizers and participants.

Hakkasan Golf Tournament

On May 7, more than 200 guests enjoyed a day filled with golf and fun when Hakkasan Group hosted its second annual Charity Golf Invitational at the Spanish Trails Golf Course. As an extension of the renowned hospitality group's Hakkasan Gives Back initiatives, the company partnered with Keep Memory Alive and raised funds through sponsor donations, tournament entries and silent auction items.

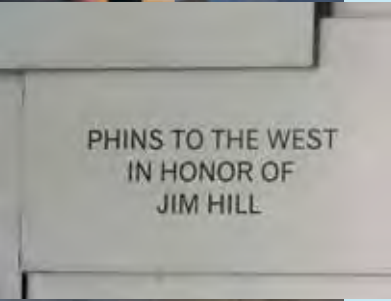
As Keep Memory Alive Chairman and Founder Larry Ruvo explained when he accepted the check from Hakkasan and thanked the group for its support, the event introduced 200 people to Keep Memory Alive, and they will be out in the

Joe Haro (far left), Executive Director of Corporate Partnerships of Hakkasan Group, and Rich Kenny (far right), Executive Director of VIP Marketing and Customer Development, join Keep Memory Alive Co-Founder and Chairman Larry Ruvo (second from right) and Kevin McCracken, Senior Vice President, Spirits – Southern Glazer's Wine & Spirits, on the green to present a commemorative check marking an initial donation of \$75,000. Photo credit: Joe Janet






 Phins to the West gather for a visit to the Lou Ruvo Center for Brain Health



community as ambassadors for the mission of the Lou Ruvo Center for Brain Health.

Phins to the West

Phins to the West held its annual Keep Memory Alive night on June 7. The event brought together parrot heads and trop rock music lovers from around the globe to enjoy a weekend of entertainment, fun and fundraising in Mesquite, Nevada.

The weekend kicked off with Keep Memory Alive night, when guests were asked to wear purple to signify Alzheimer’s disease and to recognize Jimmy Buffett’s loss of his father to the debilitating disease.

Weekend festivities included numerous Jimmy Buffett cover bands as well as a silent auction. Funds raised are double-matched by Pepsico, effectively amplifying this group of philanthropically minded Jimmy Buffett fans’ impact on the community. This year’s Phins to the West “party with a purpose” raised more than

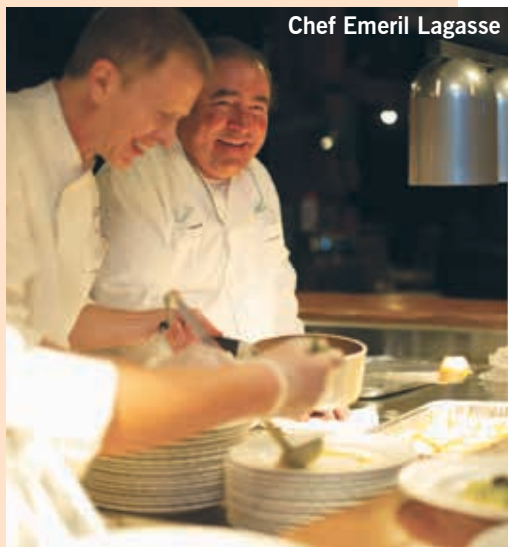


\$25,000, and marked the eighth year the group has supported Keep Memory Alive.

To commemorate a milestone in giving, on June 6 the group stopped in Las Vegas on its way to Mesquite, and was recognized with a plaque on the Keep Memory Alive Honor Wall at the Lou Ruvo Center for Brain Health, where members also enjoyed a special educational presentation with doctors and department heads. They’ve already set a date for next year’s event.

HOW YOU CAN HELP

If you would like to host an event to benefit Keep Memory Alive, we would like to hear from you at 702.263.9797 or events@keepmemoryalive.org. If you are interested in attending an event, please visit the “Events” section of keepmemoryalive.org.



Chef Emeril Lagasse



Saddling Up to Support Brain Health

A professional rodeo, musician Sammy Hagar and celebrity chef Emeril Lagasse headlined Keep Memory Alive's Summer Social and Rodeo at Shakespeare Ranch, a Western-style weekend of fun and fundraising that has become an annual tradition.

The festivities kicked off Friday, June 29 with the rodeo, which featured bull riding, barrel racing, carnival games, a watermelon-eating contest for kids and a Western barbeque. The rodeo is the successor to the Glenbrook rodeo, which began in the early 1900s, was discontinued in 1965, and then resurrected in 2000 by Camille and Larry Ruvo, along with the McGill family.

Saturday began with a private lunch and tour of Lori and Michael Milken's home.

The Milken Foundation is a long-time supporter of Keep Memory Alive and collaborator with Cleveland Clinic Lou Ruvo Center for Brain Health. Mr. Milken shared with guests his insight on trends in healthcare philanthropy, while physician leaders from the Lou Ruvo Center for Brain Health presented the latest successes in brain science.

An Ideal Mix: Food and Philanthropy

Then, world-renowned chef Emeril Lagasse's culinary cowboys took the reins in the kitchen to prepare an extraordinary dinner at Shakespeare Ranch. Guests enjoyed the best of his signature cuisine with a selection of fine wines and spirits, followed by an engaging performance by Sammy Hagar.



Longtime supporter Brice Jones was honored with the Keep Memory Alive Community Leadership Award. As Keep Memory Alive Chairman and Co-Founder Larry Ruvo said when presenting the award, "Anything I have asked for, Brice Jones has given."

Attendees again showed their enthusiasm for science and the Lou Ruvo Center for Brain Health's work by supporting the Keep Memory Alive Scholars program, which has been championed by Michael Milken each year since 2016.

This year, 12 donors bid \$10,000 each on the newest science auction item. Created in honor of Emeril Lagasse, C.H.E.F. (Compassionate Help for Every Family) will help families with tangible essentials such as transportation to appointments with our doctors, researchers and counselors; lunch during lengthy visits; and assistance in finding invaluable support resources. A hearty thank you: Together, we can reduce patient and family stress and ensure they receive the dignity and comfort they deserve.

Don't miss the fun and fundraising: Keep Memory Alive hosts events throughout the year. Visit our website, keepmemoryalive.org/events, or contact us anytime at 702.263.9797 or events@keepmemoryalive.org for more information or to subscribe to our monthly events email updates.



top: Brice Jones and Michael Milken

middle: Aaron Hagar, Sammy Hagar and Michael Milken

bottom: Jon and Nicole Taffer with Sammy Hagar

THANK YOU TO OUR EVENT SPONSORS:

The Abel Family
 Gina & Ken Ambrose
 The Arcella Family
 The Beelar Family
 The Robert L. Brown Family
 Tamra & Raymond Brown
 Maureen & Ric Campo
 The Carano Family
 Cleveland Clinic
 Brandis & Jon Deitelbaum
 Tammy & Michael Dermody
 The E.L. Cord Foundation
 Eldorado Hotel & Casino
 Emeril's
 The Emeril Lagasse Foundation
 Ferrari - Carano Vineyards & Winery
 Dona & Phil Griffith
 Kari & Sammy Hagar
 Sandy & Steve Hardie
 Lana & Steve Hardy
 The Holcomb Family
 The Hulburt Family
 Keli & Mike Jenkins
 Brice Jones
 The Kaitz Family
 The Lagasse Family
 Debbie & Kirk Ledbetter
 The Lurtz Family
 The Milken Family Foundation
 Morgan Stanley Lake Tahoe
 NV Energy
 Oliver Luxury Real Estate
 The Pascotto Family
 The Patron Spirits Company
 Bonnie & Bill Paulos
 Pendleton Whisky
 Miriam & Wayne L. Prim
 R & R Partners
 Anne & Tom Rackerby
 The Rastello Family
 Camille & Larry Ruvo
 Sammy's Beach Bar Rum
 Sierra Nevada
 R.T. Smith & Lynne Ruffin-Smith
 Charitable Foundation
 Southern Glazer's Wine & Spirits of Nevada
 The Steiner Family
 Nicole & Jon Taffer
 Tahoe Blue
 Toast Spirits
 Cheryl & Gary Van Brunt
 Rosemary & Billy Vassiliadis
 The Wiegand Foundation
 Karen & Rick Wolford

Dementia Friendly Southern Nevada

Dementia has the potential to negatively impact communities as healthcare, government, and personal entities require more resources to deal with a growing number of citizens with cognitive degeneration. Communities cannot simply focus on meeting the physical and health needs of the person with dementia; we must support individuals' abilities to sustain the best quality of life possible as we wait for effective therapies. The emerging interest in dementia-capable communities is changing the way we think about living with dementia.

In 2016, Cleveland Clinic Lou Ruvo Center for Brain Health partnered with the State of Nevada Aging and Disability Services Division, the Alzheimer's Association and other organizations throughout Nevada on an Alzheimer's Disease Specialized Supportive Services Programs (ADSSSP) grant to implement 'Dementia Friendly' operations in communities throughout the state. The role of our center is to create awareness about dementia and available tools to support diagnoses, treatments and management for those affected.

After much planning, many of the programs the Lou Ruvo Center for Brain Health has led have been realized, notably:

A Dementia Training for the First Responder video:

Accredited for four hours of continuing education credits for healthcare providers, EMS, police, and social workers, the video instructs viewers about the difference in behaviors between three different types of dementia: Alzheimer's disease, Lewy Body dementia, and frontotemporal dementia. There are also patient-caregiver interviews and panel discussions of actual incidents between persons with dementia and emergency responders. <https://www.nevadaahec.org>.



The Dementia Friendly Resource Notebook:

Created to support individuals living with dementia and their care partners, the notebook contains information about types of community resources, words of wisdom from those with firsthand experience, references for more in-depth information, and instructions on how to access resources throughout the state of Nevada. Obtain a copy by contacting santai@ccf.org.

Dementia 2018: Dementia Capable Communities:

This continuing education conference was held on June 2 to address how healthcare, social service and legal societies can work together to effectively manage the growing epidemic of dementia. As scientists strive to find therapies to eradicate the insidious symptoms of dementia, communities must find ways to effectively manage these disorders. Early diagnosis, early planning, effective treatments and social supports were among the key topics of the conference. 142 practitioners attended; 108 were from Nevada.

As it continues its outreach, the goal of Dementia Friendly Southern Nevada is to provide quality educational opportunities statewide.



JOIN THIS COMMUNITY EFFORT

Only by engaging the community can we succeed in protecting the quality of life of people with dementia. Dementia Friendly Southern Nevada, spearheaded by Cleveland Clinic Lou Ruvo Center for Brain Health, needs you. To volunteer or learn more about this community program, please visit dementiafriendlynevada.org.

Join Us for Fun and Fundraising: Upcoming Keep Memory Alive Events



Go All in for Memories: Texas Hold'em Tournament

Friday, September 21

This is your chance to learn from the best as you try your luck at the poker tables, roulette wheel and silent auction. We encourage beginner through advanced players to be challenged and play for extraordinary prizes.

Come together for a fun and relaxing evening hosted by casino legend **Jack Binion**. Sit among elite players and celebrities like:

- **Doyle "Texas Dolly" Brunson**, Poker Hall of Fame inductee, two-time World Series of Poker Main Event Champion and winner of ten overall bracelets at the WSOP
- **Daniel "Kid Poker" Negreanu**, Poker Hall of Fame inductee and six-time WSOP bracelet winner
- **Barry Shulman**, two-time WSOP bracelet winner and author
- **Jack McClelland**, Poker Hall of Fame inductee and longtime WSOP and World Poker Tour tournament director
- **Jon Taffer**, entrepreneur and television personality

Many more surprises to come!

- Fine wine along with specialty cocktails
- Food stations by Clique Hospitality
- Featuring music by Michael Shulman

Prize Structure

First Prize: \$10,000 Cash

Runner-Up Prize Opportunities:

- Trips
- Jewelry
- And other incredible prizes
- Wine
- Chef dinners

Registration: 5:30 p.m.

Tutorial: 6:00 p.m. *Brush up on your skills*

Tournament Play: 6:30 p.m.

Tickets:

Keepmemoryalive.org/KMAPokerTournament
or **702.263.9797**

Let's up the ante to save memories.



Whiskey on the Rocks presented by Total Wine & Whisky Advocate

Friday, October 5

7:00 – 10:00pm *(early access)*

7:30 – 10:00pm *(general admission)*

Crimson Lounge, Red Rock Casino Resort & Spa

Join us at the Red Rock Casino in Las Vegas for Whiskey on the Rocks, an evening sampling some of the world's most sought-after spirits. Explore more than 120 renowned single malt scotches, rare bourbons, handcrafted ryes and more — including rare offerings and limited-release, handcrafted whiskeys. Don't miss this chance to sample the spirits everyone is talking about!

Tickets:

Limited amount of early admission tickets for 7pm entrance

\$150 single admission; \$250 for two

A portion of ticket sales will support Keep Memory Alive.

Keepmemoryalive.org/WhiskeyontheRocks

MORE INFORMATION ON UPCOMING EVENTS

You may purchase tickets for these and other of Keep Memory Alive events throughout the year at keepmemoryalive.org/events.

Please contact us anytime at **702.263.9797** or events@keepmemoryalive.org for more information or to join our monthly events email updates.

Follow Keep Memory Alive on Facebook, Twitter or Instagram for up-to-the-minute event details.

KEEP MEMORY ALIVE

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



ALZHEIMER'S | HUNTINGTON'S | PARKINSON'S
MULTIPLE SYSTEM ATROPHY | MULTIPLE SCLEROSIS



888 W. Bonneville Ave.

Las Vegas, NV 89106

Office 702.263.9797

Toll free 888.268.9797

keepmemoryalive.org

clevelandclinic.org/Nevada

SAVE THE DATE

23rd annual POWER OF LOVE[®] GALA

SATURDAY, MARCH 16, 2019 in LAS VEGAS

**Festive memories, food,
fun and philanthropy**

Follow Keep Memory Alive on Facebook, Twitter
or Instagram for up-to-the-minute event details.

