This newsletter marks three milestones in the short history of the CVL. The first is the imminent retirement of Mr. Larry Warder as Chair of the Center’s Advisory Council. Larry (profiled in our Spring 2015 newsletter) assumed this role in 2013, after serving as a council member for two years. We cannot thank him enough for his leadership, wisdom, friendship and advice over this time of some seven years, which dates back almost to the Center’s founding. The second milestone is represented by the recent Jean & Bill Booziotis Distinguished Lecture organized by the Center (see right) and supported by a generous endowment from the Booziotis estate. This year’s lecture marks the fifth anniversary of this very successful series, the fifth since the passing of Jean and the second since Bill’s passing. It is a privilege to continue to fulfill their vision of giving our community the opportunity to hear from the country’s leading researchers in human cognitive neuroscience and aging.

And, last but by no means least, we salute the promotions with tenure of the first three of our faculty colleagues to join the CVL as assistant professors (see p. 7). The award of tenure is truly a milestone in any academic career, and we are delighted to celebrate it, and the achievements that led to it, three times over! 

Dr. Michael Rugg

Technology Meets Neuroscience in CVL’s Annual Public Lecture Honoring Jean & Bill Booziotis

In late April, the Center hosted its fifth Jean and Bill Booziotis Distinguished Lecture, continuing the tradition of making a presentation by a leading scientist available to the community free-of-charge.

This year’s lecture featured Adam Gazzaley, M.D., Ph.D., professor of neurology, physiology and psychiatry at the University of California, San Francisco. Dr. Gazzaley is also the founder of Neuroscape, a translational neuroscience center at UCSF that is developing novel brain assessment and optimization approaches.

Speaking to a diverse, multi-generational audience at the Communities Foundation of Texas on April 24, Dr. Gazzaley spoke about the intersection of technology and neuroscience in his “Technology Meets Neuroscience — A Vision of the Future of Brain Optimization” lecture. 

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Dr. Adam Gazzaley outlines how brain performance might be optimized with technology.
Hiring superlative leadership in academic medicine and healthcare means finding the “precise fit,” as is often said of the executive job hunt. And identifying extraordinary leaders with the right temperament, organizational skills and vision to steer what are often large and complex clinical care entities, is the key challenge of healthcare recruiters.

“When placing talent at the top, you are changing not just the lives of that executive and his or her family, but the lives of the people and families of everyone — possibly tens or hundreds of thousands of individuals — elsewhere in the organization,” says CVL advisory councilmember Jannah Hodges, the founder and managing partner of Hodges Partners, a Dallas-based search firm with a specialty in global healthcare executive searches. “We do our homework in that regard, and we take our business very seriously."

These are issues Hodges wrestles with daily, in what has become a 24/7 career in executive search. Hodges has been navigating a potential minefield of choices since she founded her firm in 2009, after two decades at three other global executive search firms, including Korn Ferry International, and Heidrick & Struggles.

Her philosophy is simple and effective: When you find the right person, that person’s personal and professional goals are in lockstep with the mission of the institution. While more than 50 percent of her placements are at private-equity sponsored healthcare companies, Hodges’ Partners recent successes with non-profits include bringing the surgeon-in-chief from the Hospital for Sick Children in Toronto to lead the #1-ranked pediatric heart surgery program (according to U.S. News & World Report) in the United States at Texas Children’s Hospital, placing the best people in the best companies, no matter where either is based. For every executive she has brought to Dallas, she has likewise farmed out: “I do what’s best for the employer and the shareholders, and what’s best for the recruit, without favoring any locales,” she says. With another office in Colorado and a rigorous travel schedule meeting with clients, she actually spends as much time away from North Texas as she does in it.

When in Dallas, however, in addition to serving CVL, she also finds the time to serve as board director of the Make-A-Wish Foundation of North Texas, while helping build homes through her church and Carpenters for Christ.

“There’s something about picking up a hammer and nailing away that is liberating, especially when you appreciate how you are helping a family that is having a hard time and would not otherwise afford constructing a house of their own,” she says. “It’s the antithesis of sitting in an office or a conference room all day.”

For Hodges, there is peace, balance and a spiritual reward in helping others reach their potential by finding “homes” — not just in their professional but also in their personal lives.
Neuroscience Symposium Approaches Neuroimaging Research as a “Team Sport”

In late January, CVL and the Peter O'Donnell Jr. Brain Institute at UT Southwestern Medical Center hosted a highly successful and first-ever joint symposium to report on the many successful collaborations in neuroimaging research among investigators at UT Dallas and UT Southwestern. The event was held on the UT Southwestern campus and was entitled “Neuroimaging is a Team Sport: The Promise of Multimodal Imaging & Cross-Institutional Collaborations.”

The all-day meeting on Jan. 26 was opened with remarks by Drs. Daniel Podolsky and Richard Benson, Presidents of UT Southwestern and UT Dallas respectively. This was followed by a session where one member from joint research teams highlighted findings from their studies and discussed next steps. Following this, Dr. Clifford Jack, a renowned Alzheimer's researcher from the Mayo Clinic, was the keynote speaker. To an audience of nearly 200 clinicians and researchers, Dr. Jack highlighted a new view of Alzheimer's Disease pathology, describing combinations of biomarkers based on different neuroimaging techniques that signaled different disease states.

In the afternoon, Dr. A. Dean Sherry, Professor of Radiology and Director of the Advanced Imaging Research Center (AIRC) at UT Southwestern, gave a summary of the imaging capabilities within the AIRC and provided a technical overview of the scanners that can be booked for human-participant research.

Among the speakers from UT Southwestern were Drs. Marc Diamond, Director and Professor in the Dept. or Neurology and Neurotherapeutics, who gave the audience an introduction to the UTSW Alzheimer's Disease Center, and Dr. Gaudenz Danuser, Professor and Chairman of the Dept. of Bioinformatics, who gave an overview of the bioinformatics initiative at UTSW, which seeks to measure and improve clinical outcomes by accumulating diverse, multidimensional data to help generate “quantitative approaches to extract meaningful insights that have not been achievable using existing approaches.”

Presenters from UT Dallas included Drs. Michael Rugg, Gagan Wig, Denise Park, Bart Rypma, and Francesca Filbey whose neuroimaging work ranged from the study of memory brain structure and memory to the impact of addictions on the brain.

The symposium was a collaborative project conceived by Dr. Park, Director of Research at the Center for Vital Longevity. Dr. Park noted that the presence of so many researchers and clinicians at the symposium illustrated the interest and synergy between the two institutions with respect to imaging research.

“The joint usage of the Advanced Imaging Research Center by researchers at the two universities led naturally to the development of cross-institutional projects,” said Dr. Park, who was one of the three primary conference organizers, along with Drs. Rathan Subramaniam, Professor of Radiology and Medical Director of the Cyclotron and Molecular Imaging Program at UTSW, and Joseph Maldjian, Professor of Radiology and Chief of the Neuroradiology Division at UTSW.

“These collaborations are critical for unleashing the potential that neuroimaging research has to remediate human suffering as well as to provide an understanding of nature’s most complex creation — the human brain,” she added.
The myriad intersections of music and the mind are known to artists and scientists alike. In his book “Musicophilia,” the renowned British neurologist Dr. Oliver Sacks shared examples of how music can stimulate movement in people with Parkinson’s disease, and even help people with Alzheimer’s and other dementias as they work through fragmented memories. The Center for Vital Longevity, whose focus is on understanding the healthy aging brain, is home not only to a critical mass of cognitive neuroscientists studying the fundamental processes of memory and how interventions that affect these processes might improve memory, but also a disparate group of musicians whose life outside the Center includes instruments and the joys of live performance. It so happens there is a nexus of science and art embodied in more than a few scientists at the CVL.

While two such musicians, Research Scientist Dr. Marianne de Chastelaine and doctoral student Erin Horne, call the CVL’s Functional Neuroimaging of Memory laboratory home during the week, both have played a variety of venues during their careers, including Wembley Stadium, the White House, and closer to home, the Moody Performance Hall in Dallas, in the scant spare time they have when not conducting research at the Center.

Dr. de Chastelaine, who started cello at the age of seven and as a teenager studied under the tutelage of noted English cellist Anna Shuttleworth, has continued actively performing on the instrument. After working in a fish and chips shop to pay off the cello (hers is more than 150 years old) during high school, the instrument became a fixture, and has followed her across the Atlantic after she received her Ph.D. at University College London, and across the country on both coasts (New York City working at the New York State Psychiatric Institute, and in southern California at UC Irvine, respectively).

At a recent afternoon performance at the Moody, you could hear a pin drop. For anyone who has never attended a performance there, the atmosphere is a sonic void after the welcoming applause, and in the seconds before the music starts. Then the low thrum of the cellos, perhaps undercut only by the deeper double basses (Horne’s chosen instrument) behind them, sets the foundation for an inspiring performance of compositions by Samuel Coleridge-Taylor and others at a recent performance of “Bridges: Dialogues” to some 300 symphony-goers. There, near the front, is Dr. de Chastelaine.

“It really is a gorgeous experience playing amid a symphony,” Dr. de Chastelaine said, reflecting on the performance one recent afternoon at the Mockingbird Diner near Love Field. “Each person is contributing to a sensory experience that engages different aspects of attention and memory, and there is an overall feeling that you’re creating and contributing to a work of art that is larger than yourself … I watch the bows of the other players out of the corner of my eye, and I can hear the different sections coming in. It’s something you become a part of.”

“Parts of ‘procedural memory’ are definitely engaged when you play an instrument over time,” added Horne, whose dissertation has been eating into her practice time on the double bass recently. (Procedural memory is a type of memory that aids in the performing of specific tasks without conscious awareness of previous learning experiences.)

Bringing a scientific rigor to her performances, Dr. de Chastelaine believes that preparation is key to an excellent performance. Not one to blend in, rely on, or recede under the cover of another colleague’s proficiency, Dr. de Chastelaine says that any underperforming member of the symphony would be immediately detectable to other musicians, and in some severe cases, the audience. (“Although when I played Wembley, my legs were shaking because of the enormity of the venue, and the sheer size of the crowd,” she admits.)

Which is why she insists on holding her own (cello) in the current symphony to which she belongs, the New Texas Symphony Orchestra (NTSO).

Sharing something memorable with the audience and the North Texas community through performances with the symphony is also a motivating factor, and a nice counterbalance to scientific research that can be one-step removed from having a direct impact on individuals outside the Center, Dr. de Chastelaine added.

For more information about upcoming performances by the NTSO, visit its website at https://ntso.org.
Subjective Memory and Why Complaints About it May Deserve a Second Look

A low subjective memory rating might be a useful early marker for the onset of mild cognitive decline, which sometimes foreshadows Alzheimer’s Disease. But what is subjective memory? Is it accurate, or is it something only the “worried well” tend to be preoccupied with?

Put simply, subjective memory is a person’s self-evaluation of how good his or her memory is, and whether (in that person’s opinion) there has been any age-related worsening of memory. While some memory changes may even be undetectable to others and are too subtle to register on cognitive tests, the person subjectively feels that memory is slipping, despite the absence of objective evidence.

Research from Dr. Karen Rodrigue’s lab and published recently in Psychology & Aging examined subjective memory ratings in 195 healthy adults aged 20 to 94, and demonstrated that some aspects of subjective memory correlated with poorer performance on “objective” tests of memory. This relationship was especially noteworthy in participants over age 60.

To control for emotional and genetic factors that can negatively affect memory, the study measured mood and screened out depressed individuals, and in addition assessed known risk factors for memory loss such as APOE4 genotype, as well as beta-amyloid burden in the brain. These factors were taken into account to examine whether subjective memory ratings were reliable correlates of objective memory ability. The study included measures of “associative memory” (e.g., remembering word-pairs and name-face pairs) — a type of memory particularly...
**Avanti Dey — Park Lab**  
Avanti joined the Park Lab as a postdoctoral researcher. Originally from Kingston, Canada, she obtained her Ph.D. in cognitive psychology from Washington University in St. Louis, working with Dr. Mitch Sommers in the field of speech perception in aging. After a year of postdoctoral work at Columbia University with Dr. Jacqueline Gottlieb to understand the neural bases of curiosity and learning, she returned to the field of cognitive aging. Avanti’s primary research interests lie in understanding the interaction between executive function and knowledge in aging from a multidisciplinary perspective. She is particularly interested in understanding the mechanisms of maintenance and compensation, and how the aging brain is sensitive to life experience and enrichment. She is further interested in how these processes may promote creativity and expertise in old age. In addition to being a cinephile, “foodie” and world traveler, Avanti is also a musician, specializing in opera, classical repertoire, and musical theatre, and has performed in a variety of venues in St. Louis and New York.

**Chris Hawkins — Rugg Lab**  
Chris joined Rugg Lab as a research assistant in April. Prior to arriving at the Center, he was a research assistant with the UT Health Science Center at Houston’s neurosurgery department, where he was responsible for collecting, processing and storing blood, cerebrospinal fluid, and tumor and epilepsy tissue samples from neurosurgery patients. The samples were used to examine genetic links to various traumatic and non-traumatic neurological conditions. He received his bachelor’s and master’s degrees from Texas State University, where his scholarly work focused on sleep and memory. Chris is a native Texan, and so far has been spending most his free time unpacking and enjoying the occasional craft beer.

**Lisa O’Connor — Rugg Lab**  
Lisa recently joined Rugg Lab as an administrative coordinator. She is a transplant from the UT Southwestern Medical Center, where she was an administrative assistant for the Dept. of Psychiatry’s basic science research labs for more than five years. She also served as the chairman’s office coordinator for the past year. A graduate of Elmhurst College in Illinois, Lisa moved to Texas shortly after graduating, working in real estate management, desktop publishing and database programming before becoming a 2nd grade teacher in the Van Alsty School District. While no longer a teacher, she remains a student herself — one semester away from completing a master’s degree in counseling from Texas A&M University-Commerce. In her new role, Lisa will provide part-time administrative support. Outside of the office, she enjoys hiking, camping, biking, traveling, reading and healthy cooking!

**Sunil Shrestha — Park Lab**  
Sunil joined CVL as a programmer analyst in the Park Aging Mind Lab. He earned his master’s degree in computer science and physics from Western Illinois University. Prior to CVL, he worked as a programmer at the Center for Autism and Developmental Disabilities at UT Southwestern for six years. Before moving to Texas, he was a research data analyst at the Center for Cognitive Medicine at the University of Illinois at Chicago, for five years. He has extensive experience in developing a number of stimuli presentation software packages, databases in MS Access and SQL Servers, websites, eye-scoring software in MatLab, and other custom software for research programs.

**Ashley Soria — Administration**  
Ashley joined CVL as the Center’s new administrative assistant. Ashley was born and raised in Alaska, where she graduated with a bachelor’s degree in justice with a minor in psychology from the University of Alaska Fairbanks (UAF) in 2014. Among her favorite courses was forensic psychology, but she also took communications courses, spending a semester in Florida at Barry University. Throughout college she worked part-time providing office support for the UAF Cooperative Extension Service Anchorage District Office, a partnership between the university and the U.S. Dept. of Agriculture. After she graduated, she traded the frigid climate of Alaska for Texas heat, and has been working in office environments since her move. Her husband is a U.S. Army veteran and she is proud owner of two dogs. She is also — partly due to the fact that many in her family have pursued careers in law enforcement — a self-described fanatic of TV murder mysteries, including “The First 48.”

**Hannah Warren — Park Lab**  
Hannah joined the Park Aging Mind Lab shortly after graduating with a master’s degree in clinical rehabilitation counseling from UT Southwestern. While at UT Southwestern, she studied the relationship between mental health and medical illnesses including providing rehabilitative services to clients with short and long-term disabilities. She also assisted with developing an assessment used to collect data related to functional domains of stroke survivors and a transitional care plan from hospitalization to home care. Hannah became more interested in doing research while assisting with this new assessment, especially research on neurocognitive disorders and implementing strategies for continuity of care throughout and even after treatment. She is a Certified Rehabilitation Counselor, and a Texas native. She enjoys volunteering at Texas Scottish Rite Hospital for Children and CitySquare. The proud owner of two dogs, Hannah also enjoys time with family, photography, and being outdoors in her spare time.
Three Center researchers, Drs. Chandramallika Basak, Kristen Kennedy and Karen Rodrigue — who represent half of CVL’s faculty — were promoted to associate professors with tenure this spring.

Drs. Kennedy and Rodrigue first came to CVL in 2010 as postdoctoral scholars working with Dr. Denise Park, the Center’s founder. During their postdoctoral studies, both received Pathway to Independence (K99) Awards from the National Institute on Aging, which paved the way for their recruitment to UT Dallas as faculty. Prior to their moves to UT Dallas, Drs. Kennedy and Rodrigue were at the Institute of Gerontology at Wayne State University, where they earned their doctorates.

Dr. Basak joined CVL in the fall of 2011, after serving as an assistant professor of psychology at Rice University. Prior to that, she was a research scientist and a Beckman Institute Fellow at the University of Illinois, having earned her Ph.D. from Syracuse University.

News of the promotions was well received by all three, as well as the entire Center.

“Drs. Basak, Kennedy and Rodrigue have each achieved national recognition for their research in a very short time, ” Dr. Park said. “It is such a pleasure to see how they each have translated their excellence in research into engaged and enthusiastic training of the next generation of scientists. They are a tremendous asset to the Center and to UT Dallas.”

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“The talk highlighted his laboratory’s efforts to design non-pharmaceutical interventions for attention and memory disorders, specifically through the development of cognitively challenging and potentially cognition-strengthening videogames such as the “NeuroRacer” driving game. Dr. Gazzaley also called on the training field to invest more effort in so-called “closed loop” regimens that offer real-time feedback about the effectiveness of an intervention, while adjusting the regimen to match the cognitive capacities of the participants.

“We humans over the last century have improved how we live in this world in so many amazing ways,” Dr. Gazzaley told the evening audience. “But despite that I would say we are suffering a ‘cognition crisis’ of how our brains interact with our environment, and how we perceive the world, integrate information, and how we respond to the world.”

Among other accomplishments, Dr. Gazzaley has hosted documentaries on PBS and is the co-author of the critically acclaimed book “The Distracted Mind: Ancient Brains in a High-Tech World.”

Starting with the first lecture in 2014, the aim of the Booziotis lecture series has been to highlight distinguished scientific visitors to Dallas, and to facilitate the spread of their knowledge and research through the community. “These lectures form an important part of the CVL’s public education in science mission,” says Director Dr. Michael Rugg.

For anyone who missed the lecture at the Communities Foundation of Texas, an audio recording is available in the news and events section of the Center’s website at cvlinfo.org.
Lawrence Warder (Chair)
Retired CFO
US Department of Education

Chela Abdallah
Community Volunteer

Mary Susan Barnhill
Owner, MSB Interiors

Cassie Crosby
Community Volunteer

Mr. Giles Davidson
Managing Partner, GoWest

Lisanne Glew
First Vice President, UBS

Roslyn Thibodeaux Goodall
Community Volunteer

Jannah Hodges
Managing Partner, Hodges Partners

Laree Hulshoff
Community Volunteer

Ken Kay
Partner, Armanino, LLP

Ocie Kazee-McCallister
District Director, State Representative

Toni Rose

Lindsey Kluempers
Commercial Lines Insurance, Swingle Collins & Associates

Joan E. Mason
Portfolio Manager, Morgan Stanley Wealth Management

Scott Murray
Chairman/CEO, Murray Media

Nancy M. O’Neil
Community Volunteer

Charles Seay, IV
Senior Implementation Manager, Tonic Health

Lisa Shardon
CEO, Home Health Companions

John Stilwell
Clinical Professor, UT Dallas