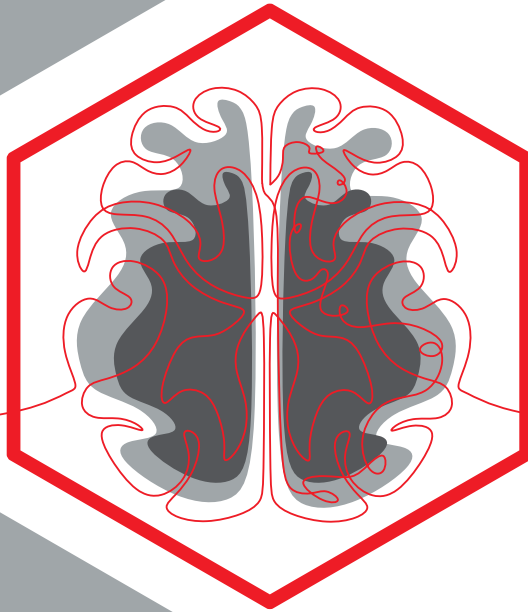




*Garrison Institute on Aging*  
**ANNUAL  
REPORT**



**25**



TEXAS TECH UNIVERSITY  
HEALTH SCIENCES CENTER™

Garrison Institute on Aging



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# Mission and Vision



## ***Our Mission***

is to promote healthy aging and brain health in the aging population through translational research, innovative educational initiatives, and community engagement programs. The Garrison Institute on Aging (GIA) advances knowledge about aging and diseases such as Alzheimer's, other forms of dementias, mental health conditions, and brain disorders. Through our educational programs, we inform and empower the community. Our community outreach programs and the newly established comprehensive memory clinic are designed to support patients and their care partners, enhancing quality of life, increasing access to healthcare, and improving psychological and physical health.

## ***Our Vision***

is to serve as the central hub within Texas Tech University Health Sciences Center (TTUHSC) for innovative and collaborative efforts in translational research, interdisciplinary education, and community engagement related to healthy aging, brain health, and aging-related conditions such as dementia. The GIA leads in advancing knowledge about disease mechanisms and risk factors to drive improved diagnostic and therapeutic strategies. At the GIA, we are committed to serving the communities of West Texas through our research, education, clinical work, service, and care programs.



# Message from Senior Vice President for Research and Innovation

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Dear Colleagues and Friends,

On behalf of Texas Tech University Health Sciences Center Office of Research and Innovation, I am pleased to congratulate the Garrison Institute on Aging (GIA), led by Dr. Volker Neugebauer, on another outstanding year of achievement and service. Over the past year, the Institute has continued to demonstrate excellence in research, clinical care, education and community engagement, advancing its mission to improve the lives of individuals and families affected by Alzheimer's disease and related dementias.

Another incredible milestone was the continued growth and renovation of the GIA Memory Clinic, reflecting the Institute's commitment to expanding access to high-quality diagnostic services, care coordination and caregiver support. With their dedication to serving patients across the Texas Panhandle, New Mexico and surrounding rural regions, the clinic has become a critical resource for communities with limited access to specialized dementia care. Through the CMS GUIDE Model, launched in July 2025, the team expanded services to include free respite care, in-home safety assessments, and medication management.

GIA has continued to make meaningful advances in research and scholarship, with faculty contributing impactful publications, presentations and advocacy efforts supporting the future of dementia research in Texas, including efforts supporting the Dementia Prevention Research Institute of Texas (DPRIT). Collaborative initiatives resulted in significant external funding, including support from the Alzheimer's Association to expand respite care services for caregivers.

The Institute's dedication to community outreach and education remains a defining strength and continues to serve as a trusted source of evidence-based information and support. Through initiatives such as the Healthy Aging Lecture Series, Brain Awareness Week programming and caregiver-focused education, GIA continues to provide trusted resources while building strong community partnerships that translate generosity into meaningful work.

These accomplishments are made possible by an exceptional team of faculty and staff whose dedication and service exemplify the values of TTUHSC. I extend my sincere congratulations to the GIA on a remarkable year and look forward to its continued success and impact in the upcoming year.

Sincerely,

Lance R. McMahon, Ph.D.

Executive Vice President for Research and Innovation,

Interim Dean of the Graduate School of Biomedical Sciences



# Message from Executive Director

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**E**stablished in 1999 by the Board of Regents as the Institute for Healthy Aging, and became the Garrison Institute on Aging (GIA) in 2005 thanks to a most generous donation by the Garrison family. The mission and goals of the GIA are to improve the quality of life and brain health of the aging population in West Texas through innovative and collaborative translational research, education, community outreach, service and care programs, in line with the vision of TTUHSC to transform health care through innovation and collaboration.

The GIA houses **research facilities** for preclinical experiments as well as biobanks for human brain tissues, bodily fluids, and isolated DNA samples to study mechanisms, risk factors, and novel targets for neurodegenerative brain and other aging-related diseases. Translational research at the GIA involves human tissue, epidemiological data and studies in humans. The GIA **Brain Bank** serves the families of patients with AD and other forms of dementias through free brain autopsies for a definitive diagnosis and also provides brain tissues for the molecular analysis of mechanisms and targets to validate and guide preclinical lab research. GIA-based **Project FRONTIER** (Facing Rural Obstacles to Healthcare Now Through Intervention, Education & Research) is a laboratory and community based longitudinal study that collects epidemiological, neurological, and biological data on cognitive health and aging in a multiethnic adult group of volunteers from rural communities of West Texas to investigate the prevalence and risk factors of dementia among rural residents. **Clinical trials** include immunomodulatory drugs in AD, natural products

to improve cognitive function in aging, and clinical interventions such as dialectical behavior therapy for caregivers of persons with AD/ADRD.

The GIA **Community Outreach and Education** programs support and educate the community about preventive healthcare and the unique challenges faced by older adults. Their efforts include educational initiatives, awareness campaigns, surveys, local volunteer opportunities and other initiatives related to Alzheimer's disease and health issues associated with aging. To meet evolving needs, the GIA team has expanded into virtual platforms, offering accessible educational events and learning opportunities. Key programs include the Retired & Senior Volunteer Program (RSVP), the Healthy Aging Lecture Series, the Healthy Lubbock Initiative, the Care Partner Academy, Dementia Live Program, and special events during National Alzheimer's Disease and Awareness Month. Through building partnerships with local agencies across rural West Texas, as well as national organizations such as the Alzheimer's Foundation of America, the GIA continues to provide a wide range of services that support caregivers and families as they navigate the challenges of dementia and aging.

**Clinical Programs** at the GIA provide free mental health services through the CREATIVE MINDS, TX CARES, TX CARES-TELEHEALTH, and Adapt Dialectical Behavioral Therapy (DBT) Skills programs headed by Dr. Singer. Our new Comprehensive Memory Clinic directed by Dr. Jonathan Singer in collaboration with Drs. Gayle Ayers (Psychiatry) and John Bertelson (Neurology) provides vital memory care services for



persons with dementia and family members, including comprehensive assessments, care plan, medication management, caregiver support and education. The GIA has partnered with the company Wovenly Health to participate in the GUIDE program, which provides a comprehensive care network for persons with dementia and their caregivers through the Centers for Medicare & Medicaid Services (CMS). It includes a comprehensive package of care coordination and management, caregiver support and education, and respite services that can improve quality of life for people with dementia and their caregivers while delaying avoidable long-term nursing home care and enabling more people to remain at home through end of life. In fact, the GIA has been selected as site for the GUIDE program.

Through innovative and collaborative translational research, community outreach, and clinical service programs the GIA is making a significant difference in the quality of life of the aging population in our rural and urban communities. The GIA team is immensely grateful for the support of our colleagues and collaborators, the Office of Institutional Advancement, the Office of Research and Innovation headed by SVPRI Dr. Lance McMahon, President Dr. Lori Rice-Spearman, and philanthropy, especially the Garrison family, Pickering family, and Newby family.

# Faculty and Staff

## Research Division



***Yong Chen, Ph.D.***  
Senior Research Associate



***J. Josh Lawrence, Ph.D.***  
Associate Professor, Pharmacology and Neuroscience



***Boris Decourt, Ph.D.***  
Assistant Professor, Pharmacology and Neuroscience



***Maria Manczak, Ph.D.***  
Research Assistant Professor, Neurology



***Samudani Dhanasekara, Ph.D.***  
Assistant Professor, Pharmacology and Neuroscience



***Julie Medina, BA***  
Associate Director, Finance



***Ruben Gonzales, BBA***  
Senior Director



***Volker Neugebauer, M.D., Ph.D.***  
Grover E. Murray Professor and University Distinguished Professor; Executive Director and Chief Scientific Officer, Garrison Institute on Aging; Chair, Department of Pharmacology and Neuroscience; Director, Center of Excellence for Translational Neuroscience and Therapeutics; Mildred and Shirley L. Garrison Chair in Aging; Giles McCrary Endowed Chair in Addiction Medicine



## Community Outreach & Education Division



### **Jonathan Singer, Ph.D.**

Assistant Professor, Pharmacology and Neuroscience, TTUHSC School of Medicine; Assistant Professor, Psychological Sciences, TTU



### **Cordelia Aguirre**

Lead Specialist, Project FRONTIER



### **Hongmin Wang, Ph.D.**

Professor, Pharmacology and Neuroscience



### **Erin Baker**

Coordinator, Project ECHO



### **Linda Yin, MS**

Senior Research Associate



### **Joan Blackmon, MBA**

Specialist IV, Lubbock RSVP



### **Ashly Hindle, Ph.D.**

Senior Research Associate



### **Janie De la Cerda**

Coordinator, Project ECHO

# Faculty and Staff

## Memory Clinic



**Jacob Franco**

Coordinator, Community Outreach and Education



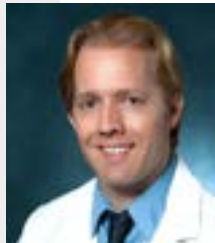
**Gayle Ayers, D.O.**

Associate Professor, Psychiatry, TTUHSC School of Medicine, Geriatric Psychiatrist, Co-Medical Director, TTUHSC Garrison Institute on Aging Memory Clinic



**Veronica Lopez, BS**

Assistant Director, Community Outreach and Education



**John Bertelson, M.D.**

Associate Professor and Medical Director, Neurology, TTUHSC School of Medicine, Co-Medical Director, TTUHSC Garrison Institute on Aging Memory Clinic



**Christy Mendoza**

Specialist IV, Project FRONTIER



**Amber Braden, NP**

Nurse Practitioner, TTUHSC Garrison Institute on Aging Memory Clinic



**Barbara Singer**

Specialist IV, Community Outreach and Education



**Alayna Jump, B.S.**

Senior Patient Service Specialist, TTUHSC Garrison Institute on Aging Memory Clinic



***Carolyn Perry, M.S., CCC-SLP***  
Speech Language Pathologist, TTUHSC  
Garrison Institute on Aging Memory  
Clinic



***Gail Cornwall, Ph.D.***  
Professor, Cell Biology and Biochemistry,  
TTUHSC School of Medicine



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Assistant Professor, Pharmacology  
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Psychological Sciences, TTU; Memory  
Clinic Director, TTUHSC



***Petar Grozdanov, Ph.D.***  
Assistant Professor, Pharmacology  
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Medicine



***Krystle Walker, NP***  
Nurse Practitioner, Neurology, TTUHSC  
School of Medicine; TTUHSC Garrison  
Institute on Aging Memory Clinic



***Josee Guindon, DVM, Ph.D.***  
Associate Professor, Pharmacology and  
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School of Medicine

#### **Research Collaborators**



***Deborah J. Clegg, Ph.D.***  
Vice President for Research, Texas Tech  
University Health Sciences Center El  
Paso, Office of Research, El Paso, TX



***Min Kang, Pharm D***  
University Distinguished Professor,  
Pediatrics, TTUHSC School of Medicine;  
Associate Vice President for Research,  
TTUHSC

# Faculty and Staff

## Clinical, Educational, and Project Frontier Collaborators



***Andrey Karamyshev, Ph.D.***  
Associate Professor, Cell Biology and Biochemistry, TTUHSC School of Medicine



***Mohamad Al-Rahawan, MPH, M.D.***  
Joon Park, MD, Endowed Chair in Medical Excellence and Professor, Pediatrics; Medical Director, Southwest Cancer Center; Director, Fellowship Program, TTUHSC School of Medicine



***Li Li, Ph.D.***  
Assistant Professor, Pharmacy Practice and Pharmaceutical Sciences, TTUHSC School of Pharmacy



***Duke Appiah, Ph.D.***  
Associate Professor, Public Health, TTUHSC School of Population and Public Health



***Naima Moustaid-Moussa, Ph.D.***  
Horn Distinguished Professor, Nutritional Sciences; Associate Vice President for Research; and Director of the Obesity Research Institute, TTU; Director, Institute for One Health Innovation.



***Alyce Ashcraft, Ph.D., RN, CNE, FNGNA, ANEF***  
University Distinguished Professor and Associate Dean for Research and Scholarship, Glenna Roberts Endowed Practicship in Geriatric Nursing, TTUHSC School of Nursing



***Igor Ponomarev, Ph.D.***  
Associate Professor, Pharmacology and Neuroscience, TTUHSC School of Medicine



***Mirla Avila, M.D.***  
Associate Professor and Interim Chair, Neurology, TTUHSC School of Medicine



***Keith Bishop, Ph.D.***

Associate Professor, Medical Education,  
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Resident Physician, Neurology, TTUHSC  
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***Michael Blanton, Ph.D.***

University Distinguished Professor,  
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TTUHSC School of Medicine; Associate  
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Professor, Ophthalmology and Visual  
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Associate Dean for Research and  
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***John DeToledo, M.D.***

Dean, Vernon and Elizabeth Haggerton  
Chair in Neurology, Professor and Chair,  
Neurology, TTUHSC School of Medicine



***Stephanie Stroeve, Ph.D.***

Assistant Professor, Medical Education,  
TTUHSC School of Medicine

# Faculty and Staff



***Sarah Wakefield, M.D.***

Professor and Chair, Psychiatry, TTUHSC School of Medicine



***Gladys Maestre, M.D., Ph.D.***

Professor, Neurosciences and Human Genetics, and Director, Alzheimer's Disease Resource Center for Minority Aging Research, University of Texas Rio Grande Valley, TX

## External Collaborators



***Kevin F. Bienick, Ph.D.***

Assistant Professor and Brain Bank Director, Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases, UT Health Science Center at San Antonio, TX



***Claudia Satizabal, Ph.D.***

Assistant Professor, Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases, UT Health Science at San Antonio, TX



***Brittany Dugger, Ph.D.***

Associate Professor, Department of Pathology and Laboratory Medicine, UC Davis, Sacramento, CA



***Sudha Seshadri, M.D.***

Professor and Director, Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases, UT Health Science at San Antonio, TX



***C. Dirk Keene, MD, PhD***

Professor, Department of Lab Medicine & Pathology, Division of Neuropathology, University of Washington School of Medicine; Director of Neuropathology Fellowship Program; Associate Director and Precision Neuropathology Core Leader, ADRC; Seattle, WA



# Faculty Activity Summaries



## ***Decourt Lab***

In 2025, the laboratory of Dr. Boris Decourt spent a large amount of time to train new students and staff members to conduct drug testing experiments on cell culture models of Alzheimer's disease. The drugs tested all have immune modulation properties and can enter the brain. Some of the results gathered during the year were used to prepare grant applications to seek funds to continue testing the drugs in rodent models of Alzheimer's. In addition to his lab activities, Dr. Decourt is working with other scientists at TTUHSC to develop an institutional biobank that will gather samples and data from patients and caregivers visiting TTUHSC and UMC for standard healthcare procedures. This novel institutional research infrastructure is aimed to support pilot and future-funded projects by streamlining and standardizing the collection of data and biospecimens, thereby assisting TTUHSC scientists with the rapid production and sharing of results.

To report on recent findings, Dr. Decourt has published ten scientific articles and book reviews, gave two invited lectures, and presented two posters at scientific meetings. In 2026, Dr. Decourt will continue his work on immunomodulatory drugs and the institutional biobank to promote scientific research and enhance the clinical care of patients suffering dementia and cancer.

## ***Lawrence Lab***

Dr. Josh Lawrence's research interests are in nutrigenomics and effects of diet on healthy aging, cellular and synaptic physiology of Alzheimer's disease, role of excitation/inhibition balance in disease states, computational neuroscience, neuromodulation, and neuroinflammation. Ongoing projects include the role of disruption of vitamin A homeostasis in Alzheimer's disease (AD) pathogenesis and progression, underlying mechanisms, and a rescue strategy that involves mitigating epigenetic dysregulation of transcription of vitamin A-sensitive genes important for brain functions such as hippocampal learning and memory. Another line of research explores the role of vitamin D deficiency associated with aging as a risk factor for various comorbid conditions and AD.

# Faculty Activity Summaries

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## **Neugebauer Lab**

Dr. Volker Neugebauer's work is about brain health and neuroplasticity in chronic diseases such as pain and Alzheimer's disease. One line of research explores neural network dysfunction in Alzheimer's disease (AD). Data from animal and human brain tissues showed that a synaptic organizing molecule is downregulated in AD and this deficit is associated with impaired neuroplasticity and autophagy, both important processes for brain health. A rescue strategy using stereotaxic injections of the downregulated molecule into the rodent brain restored neuroplasticity and cognitive behaviors. Other areas of research are neuroimmune signaling and gut-brain axis in brain plasticity. Collaborative clinical studies include EEG-based neurophysiological feedback to promote cognitive enhancement and deep relaxation in acute and chronic stress conditions; curcumin as a marker of retinal amyloid beta proteins that might be negatively correlated with neurocognitive functioning; effects of natural products on effects of pecans on brain health utilizing fMRI and neuropsychological testing; mental health services, recreational intervention, and imaging-based biomarker screening for AD/ADRD patients and caregivers; neuroimaging studies of the reward system in persons with AD/ADRD and their caregivers; and a study on the impacts of cognitive impairments on driver behavior and insights for early detection.

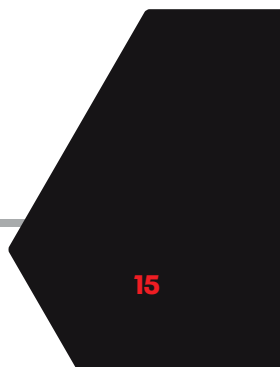
## **Singer Lab**

Dr. Jonathan Singer has several research studies that include clinical trials, dyadic interventions, and fMRI studies. These studies aim to identify gaps in knowledge related to healthcare, and studies in rural West Texas. Dr. Singer's lab has also been trying to evaluate knowledge around advanced care planning in rural residing residents in order to identify intervention targets. Dr. Singer is also leading an NIA funded clinical trial that examines the effect of an adapted intervention (i.e., Dialectical Behavioral Therapy) on suicide ideation in care partners of persons with dementia. More recently, Dr. Singer has focused on improving rural health for persons with dementia and their care partners. This has included receiving a grant from the Alzheimer's Association to provide and evaluate a recreational intervention and respite for persons with Dementia and their family members. Also, a grant from the Texas Alzheimer's Research and Care Consortium to utilize two comprehensive memory clinics (UT Austin; TTUHSC Lubbock) to develop a highly innovative, individualized, algorithm-based tool to improve outcomes for rural- and urban-residing care partners of persons with AD/ADRD in Texas. Lastly, he has ran multiple memory screening events in 2025 in the rural areas that have screened more than 200 persons.



### ***Wang Lab***

Over the past year, Dr. Hongmin Wang's team continued setting up their specialized research space, recruiting additional lab members, and working on two NIH-funded research projects. His research projects focus on (1) studying the pathogenesis of Alzheimer's disease (AD) with an emphasis on proteostasis in modulating AD pathologies and cognitive functions, and (2) understanding FOXO proteins in regulating ischemic stroke-induced brain injury. Dr. Wang and his team mentored three PhD students within the past year. In addition, Dr. Wang served on a grant review panel for the NIH/NIA three times last year.



# Collaborative Research

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## **Basic Research Facilities to Enhance Research and Collaborations**

The GIA laboratories include a molecular facility to study molecular mechanisms of brain changes in AD and aging conditions, an electrophysiology facility for the analysis of neural networks in ex-vivo brain tissues, and a rodent behavioral facility for the comprehensive study of cognitive, affective, sensory and motor aspects of behavior in AD and aging conditions.

- **RODENT BEHAVIORAL FACILITY** is managed by Linda Yin, MS, and has equipment for motor deficit screening, exploratory and anxiety-related behavior testing, and behavioral flexibility and other cognitive assessments (learning and memory). Most of our systems are Noldus based, and, where relevant, infrared backlit, employing an automated means for precise and accurate data collection. Standard operating protocols and training for use of equipment are available.
- **MOLECULAR AND BIOMARKER LABORATORY** is managed by Maria Manczak, Ph.D., and Boris Decourt, Ph.D. The equipment is designed for analyzing DNA and RNA, studying proteins, conducting immunohistochemistry, and performing cell culture. This includes a recently acquired fluorescent microscope with both upright and inverted capabilities (ECHO/Revolve Microscopy System) and a Real-Time PCR System (Applied Biosystems QuantStudio 7 Pro).
- **ELECTROPHYSIOLOGY LABORATORY** is managed by J. Josh Lawrence, Ph.D., and has equipment for brain slice physiology, including a Luigs and Neumann Infrapatch electrophysiology rig and a Scientifica electrophysiology rig. Both are equipped

with Zeiss Axio Examiner upright microscopes and with components to integrate recording from fluorescence-dyed neurons and optogenetic stimulation. Additional equipment is used for brain dissection, preparation of brain slices, and manufacturing recording electrodes.

- **COMMON LABORATORY** areas include a cell culture facility and an interventional room for stereotaxic and other surgeries on laboratory animals.

## **Collaborative Research Projects on Aging, Alzheimer's Disease, and Other Neurodegenerative Diseases and Brain Disorders**

*(Names of GIA members are underlined)*

The GIA collaborates with basic science and clinical faculty from TTUHSC Cell Biology and Biochemistry, Family Medicine, Medical Education, Neurology, Ophthalmology, Pathology, Pediatrics, Pharmacology and Neuroscience, and Psychiatry SOM departments, as well as other colleagues from SHP, SON, SOP, SPPH, CRI, UMC, and several TTU Departments interested in innovative clinically-relevant research projects.

- **PRECLINICAL STUDIES**
  - Preclinical Research - Funded Projects
    1. The hippocampal dentate gyrus in aging and Alzheimer's disease: boosting transcription of retinoic acid-sensitive genes through vitamin A supplementation and HDAC inhibition. NIH/NIA R01 AG073826 grant: J. Josh Lawrence, SOM, GIA, GSBS (PI), Maria Manczak, GIA



- (Co-I), Igor Ponomarev, SOM, GSBS (Co-I), Ranadip Pal, Electrical & Computer Engineering, TTU (Co-I), Andrew Shin, Nutritional Sciences and Obesity Research Institute, TTU (Co-I).
2. Transcriptional Dysfunction in Dentate Gyrus Cell Types: Roles of Retinoic Acid Responsive Genes in Protection Against Alzheimer's Disease Pathogenesis, NIH/NIA R01 AG071859 grant: [J. Josh Lawrence](#), SOM, GIA, GSBS (PI), [Maria Manczak](#), GIA (Co-I), Igor Ponomarev, SOM, GSBS (Co-I), Jeremy Bailoo, SOM, TTUHSC (Co-I).
  3. Priming the proteasome to protect against aging and Alzheimer's disease, NIH/NIA RF1 AG072510 grant: [Hongmin Wang](#), SOM, GIA, GSBS (PI).
  4. FOXOs in ischemic stroke. NIH/NINDS R01 NS124846 grant: [Hongmin Wang](#), SOM, GIA, GSBS (PI).
  5. Brain Circuits of Migraine Pain. NIH/NINDS R01 NS129552 grant. [Volker Neugebauer](#), GIA, SOM, GSBS (MPI), Guangchen Ji, SOM (Co-I), Frank Porreca, University of Arizona (PI), Edit Navratilova, University of Arizona (MPI).
  6. Amygdala Pain Mechanisms. NIH/NINDS R01 NS038261 grant. [Volker Neugebauer](#), GIA, SOM, GSBS (MPI), Igor Ponomarev, SOM, GSBS (MPI), Guangchen Ji, SOM (Co-I).
  7. A prolactin-mediated neuroendocrine link between stress-induced latent sensitization and female-selective pain. NIH/NINDS R01 NS120395 grant. [Volker Neugebauer](#), GIA, SOM, GSBS (MPI), Guangchen Ji, SOM (Co-I), Vadim Yakhnitsa, SOM (key personnel), Frank Porreca, University of Arizona (PI), Edit Navratilova, University of Arizona (MPI).
  8. Trans-synaptic signaling complex in amygdala pain mechanisms. NIH/NINDS R01 NS118731 grant. [Volker Neugebauer](#), GIA, SOM, GSBS (MPI), Guangchen Ji, SOM (Co-I), Shashank Dravid, Texas A&M University (PI).
  9. Pronociceptive and antinociceptive opioid mechanisms in the central nucleus of the amygdala. NIH/NINDS R01 NS109255 grant. [Volker Neugebauer](#), GIA, SOM, GSBS (Co-I), Guangchen Ji, SOM (MPI), Frank Porreca, University of Arizona (PI), Edit Navratilova, University of Arizona (MPI).
  - Preclinical Research – Projects under development
    1. Functional role of the mammalian cleavage factor I (CFIm) in Alzheimer's disease. Owens Foundation grant application. Petar Grozdanov, SOM (PI), [Boris Decourt](#), GIA, SOM, GSBS (Co-I), Igor Ponomarev, SOM, GSBS (Co-I).
    2. Dual actions of receptor-specific retinoid ligands in suppressing inflammatory and amyloidogenic pathologies in Alzheimer's Disease. NIH/NIA R01 grant application. [Josh Lawrence](#), GIA, SOM, GSBS (MPI), [Boris Decourt](#), GIA, SOM, GSBS (Co-I), Igor Ponomarev, SOM, GSBS (Co-I), Chhanda Bose, SOM, GSBS (Co-I), Bhaskar Das, University of Buffalo (PI).
    3. Exploring Dnase1L3 as a therapeutic for Alzheimer's Disease and Related

- Dementias. One Health Innovation Seed Funding Program. Peter Keyel, TTU Biology (PI), Bryan Sutton, SOM, GSBS (MPI), [Josh Lawrence](#), GIA, SOM, GSBS (Co-I).
4. Post-translationally Modified Proteins from the Extracellular Vesicles as a Potential Biomarker for Alzheimer's Disease. Owens Foundation grant application. [Hongmin Wang](#), GIA, SOM, GSBS (PI).
  5. Testing Apremilast and Pomalidomide in Alzheimer's Models. NIH/NIA R01 application. [Boris Decourt](#), GIA, SOM, GSBS (PI), Jeremy Bailoo, SOM, GSBS (MPI), Petar Grozdanov, SOM (MPI), Igor Ponomarev, SOM, GSBS (Co-I).
  6. Trans-synaptic signal complex in Alzheimer's disease. NIH/NIA R01 application. [Volker Neugebauer](#), GIA, SOM, GSBS (PI), [Maria Manczak](#), GIA, SOM (MPI), [J. Josh Lawrence](#), GIA, SOM, GSBS (MPI).
  7. Goji berry for chronic fatigue syndrome. USDA/NIFA. Chwan-Li (Leslie) Shen, SOM, [Volker Neugebauer](#), SOM, GIA, GSBS (MPI).
  8. Selective targeting KOR using diketopiperazine analogs for chronic pain management. NIH STTR grant application. Nadezhda German, SOP (PI), [Volker Neugebauer](#), GIA, SOM, GSBS (MPI), Guangchen Ji, SOM (Co-I).
  9. Developing novel class of polypharmacology agents for the treatment of multiple sclerosis. DoD. Nadezhda German, SOP (PI), [Volker Neugebauer](#), GIA, SOM, GSBS (MPI), Guangchen Ji, SOM (Co-I).
  10. Developing novel class of dopamine transporter inhibitor for the treatment of Alzheimer's disease. Nadezhda German, SOP, [Volker Neugebauer](#), GIA, SOM, GSBS, [Linda Yin](#), GIA.
  11. Development of new ligands for the treatment of pain. NIH R01 grant application. Nadezhda German, SOP (PI), [Volker Neugebauer](#), GIA, SOM, GSBS (MPI), Tom Abbruscato, SOP (MPI), Guangchen Ji, SOM (Co-I), Christopher McCurdy, University of Florida (Co-I).
  12. Functional role of alternative polyadenylation in astrocytes in Alzheimer's disease. BrightFocus Foundation grant application. Petar Grozdanov, SOM, GSBS (PI), [Boris Decourt](#), GIA, SOM, GSBS (Co-I), Igor Ponomarev, SOM, GSBS (Co-I).
- HUMAN STUDIES
    - Human Studies – Funded Projects
      1. Repurposing Siponimod for Alzheimer's Disease. NIH/NIA R01 AG073212 grant. [Boris Decourt](#), GIA, SOM, GSBS (MPI), Marwan Sabbagh, St. Joseph's Hospital and Medical Center, Phoenix (PI).
      2. MCLENA-1: A Clinical Trial for the Assessment of Lenalidomide in Amnestic MCI Patients. NIH/NIA R01 AG059008 grant. [Boris Decourt](#), GIA, SOM, GSBS (MPI), Marwan Sabbagh, St. Joseph's Hospital and Medical Center, Phoenix (PI).
      3. MCLENA-2: A Phase II Clinical Trial for the Assessment of Biomarker Trajectory in Patients with Mild Cognitive Impairment Due to Alzheimer's Disease Treated with Lenalidomide. ADDF GC-2013717 grant.



- [Boris Decourt](#), GIA, SOM, GSBS (MPI), Marwan Sabbagh, St. Joseph's Hospital and Medical Center, Phoenix (PI).
4. Reducing suicide risk among aging caregivers of persons with AD/ADRD: Adapting, implementing, and evaluating Dialectical Behavior Therapy skills training interventions. NIH/NIA R15 AG080446 grant. [Jonathan Singer](#), TTU Psychology, SOM, GIA (PI), Sean Mitchell, TTU Psychology (MPI), Andrew Littlefield, TTU Psychology (Co-I), Jason Van Allen, TTU Psychology (Co-I), Breanna Harris, TTU Biology (Co-I), GIA Memory Clinic (recruitment site).
  5. Evaluating the Effects of a Recreational Intervention on Neurocognitive Functioning in Persons with Dementia. Alzheimer's Association. [Jonathan Singer](#), TTU Psychology, SOM, GIA (P).
  6. Understanding Driving Risks in Rural Older Adults with MCI: Evaluating the Impacts of Cognitive Impairments on Driver Behavior and Insights for Early Detection. Exploratory Cross-Disciplinary Faculty Research Excellence Awards, TTU. Nade Liang, TTU (PI), [Jonathan Singer](#), TTU Psychology, SOM, GIA (MPI), [Volker Neugebauer](#), GIA, SOM, GSBS (Co-I).
  7. Piloting Stress Control as a Universal, Community-based Suicide Prevention Strategy in the U.S. American Foundation for Suicide Prevention grant. Sean Mitchell, Psychological Sciences, TTU (PI), [Jonathan Singer](#), Psychological Sciences, TTU, SOM, GIA (Co-I).
  8. Training Primary Care Providers in Screening for Dementia in Rural West Texas. GWEP Subcontract. [Jonathan Singer](#), TTU Psychology, GIA, SOM (PI).
  9. Pilot Testing a Grief Intervention for Hispanic Bereaved Youth. UNT's Center for Psychosocial Health Disparities Research Grant. [Jonathan Singer](#), TTU Psychology, GIA, SOM (MPI), Caroline Cummings, TTU.
  10. Improving Dementia Care for West Texas Residents Through a Comprehensive Memory Clinic. Garrison Family Foundation grant. [Jonathan Singer](#), TTU Psychology, GIA, SOM (PI), [Volker Neugebauer](#), GIA, SOM, GSBS (MPI).
  11. fMRI studies of the reward system in person with AD/ADRD and their caregivers. CTNT-OR- GIA JSBDVN Seed Fund Program grant: [Jonathan Singer](#), TTU Psychology, GIA, SOM (PI), [Volker Neugebauer](#), GIA, SOM, GSBS (MPI).
  12. Ginger and the microbiota-gut-brain connection in sciatic pain individuals. USDA/NIFA 2024-67018-42457. Chwan-Li (Leslie) Shen, SOM (PI), [Volker Neugebauer](#), SOM, GIA, GSBS (MPI).
  13. Curcumin and Retinal Amyloid-beta Pilot Study. Sabinsa Corporation, NJ. Chwan-Li (Leslie) Shen, SOM (PI), [Jonathan Singer](#), GIA, SOM, TTU (Co-I), [Volker Neugebauer](#), GIA, SOM, GSBS (Co-I).
  14. Leveraging technology to meet the needs of rural family caregivers in Texas. Texas Alzheimer's Research and Care Consortium-Junior Investigator Research Grant. [Jonathan Singer](#), GIA, SOM, TTU (PI),

- [Volker Neugebauer](#), GIA, SOM, GSBS (Co-I).
15. Effects of pecans on brain health in older Americans with mild cognitive impairment: gut-brain axis. American Pecan Promotion Board. Chwan-Li (Leslie) Shen, SOM (PI), [Jonathan Singer](#), GIA, SOM, TTU (M-PI), [Volker Neugebauer](#), GIA, SOM, GSBS (Consultant).
  16. Cross-Cultural Applicability and Refinement of Diagnostic Grief Measure in Mexican American Bereaved Adults. American Psychological Foundation Lorraine D. Eyde Grant. [Jonathan Singer](#), GIA, SOM, TTU (PI).
  17. Provide Alzheimer's Education for Patients in Rural Areas. Texas Department of State Health Services Pilot Grant. Ariel Santos, Surgery (PI), [Jonathan Singer](#), GIA, SOM, TTU (Co-I).
- Human Studies – Projects under development
    1. The Rural West Texas Alzheimer's Disease Research Center. NIH/NIA P30 application. [Boris Decourt](#), GIA, SOM, GSBS (PI), Gayle Ayers, SOM (MPI), [Volker Neugebauer](#), GIA, SOM, GSBS (MPI), Travis Thompson, TTU (Sub-PI), Bryan Norman, TTU (Sub-PI), Keith Bishop, SOM (Core-PI), Mike Blanton, SOM, GSBS (Core-MPI), Dirk Keene, University of Washington (Core-MPI), J. [Josh Lawrence](#) (Core-PI), [Jonathan Singer](#), GIA, SOM (Core-PI), Stephanie Stroever, SOM (Core-PI), [Hongmin Wang](#), GIA, SOM, GSBS (Core-MPI), Duke Appiah, SPPH (Co-I), Alyce Ashcraft, SON (Co-I), John Bertleson, SOM and UT Austin (Co-I), John Culberson, SOM (Co-I), John Griswold, SOM, CRI (Co-I), Petar Grozdanov, SOM, GSBS (Co-I), Josee Guindon, SOM, GSBS (Co-I), [Maria Manczak](#), GIA, SOM (Co-I), Igor Ponomarev, SOM, GSBS (Co-I), Phillip Sizer, SHP (Co-I).
    2. Evaluating Changes in Biomarkers of Aging in Cerebrospinal Fluid Among Children Receiving Chemotherapy for Acute Lymphoblastic Leukemia. CPRIT or NIH grant application. Mohamad Al-Rahawan, SOM, (PI), [Volker Neugebauer](#), GIA, SOM, GSBS (MPI), [Boris Decourt](#), GIA, SOM, GSBS (MPI).
    3. Leqembi treatment at TTUHSC. [Boris Decourt](#), GIA, SOM, GSBS (PI), Mirla Avila, SOM (Co-I), Gayle Ayers, SOM (Co-I), John Bertelson, SOM and UT Austin (Co-I), [Volker Neugebauer](#), GIA, SOM, GSBS (Co-I), [Jonathan Singer](#), GIA, SOM (Co-I).
    4. Operationalization of cancer research in West Texas to mitigate rural health disparities. NIH/NIA grant application. [Boris Decourt](#), GIA, SOM, GSBS (PI), Sharda Singh, SOM (MPI), Thomas Hutson, SOM (MPI).
    5. Establishing novel infrastructure to assess dementia risk following cancer hormone therapy. CPRIT or NIH grant application. [Boris Decourt](#), GIA, SOM, GSBS (PI), Thomas Hutson, SOM (MPI).
    6. Polysome profiling during aging and in AD subjects. [Boris Decourt](#), GIA, SOM, GSBS (PI), Zemfira Karamysheva, SOM (MPI).
    7. Peripheral vision deficits as a biomarker for



- Alzheimer's disease. One Health Innovation Seed Funding Program. Miranda Scolari, TTU Psychology (PI), [Josh Lawrence](#), GIA, SOM, GSBS (MPI).
8. Classifying Psychogenic Non-Epileptic and Epileptic Seizures from EEG Data. Exploratory Cross-Disciplinary Faculty Research Excellence Awards, TTU. Emily Pereira, TTU Electrical & Computer Engineering (PI), Jannatul Ferdous, SOM (MPI), Chanaka Kahathuduwa, SOM (MPI), [Josh Lawrence](#), GIA, SOM, GSBS (MPI).
  9. Otoferlin modeling at molecular, synaptic, and systems levels. One Health Innovation Seed Funding Program. Bryan Sutton, SOM, GSBS (MPI), Bijoy Ghosh, TTU Mathematic and Statistics (MPI), [Josh Lawrence](#), GIA, SOM, GSBS (Co-I), Jeremy Donai, SHP (Co-I).
  10. KCNIP1 at the Convergence of Alzheimer's Disease and Nutritional Deficiencies. One Health Innovation Seed Funding Program. [Josh Lawrence](#), GIA, SOM, GSBS (PI), Ranadip Pal, TTU Electrical & Computer Engineering (MPI), Chiquito Crasto, TTU Biotechnology and Genomics (Co-I), Andrew Shin, TTU Nutritional Sciences and Obesity Research Institute (Co-I), [Chhanda Bose](#), SOM, GSBS (Co-I), Igor Ponomarev, SOM, GSBS (Co-I), Bryan Sutton, SOM, GSBS (Co-I).
  11. Vitamin D in Decelerating Cognitive Decline and Epigenetic Age. Texas Alzheimer's Research & Care Consortium (TARCC) application: [Josh Lawrence](#), GIA, SOM, GSBS (PI), Kevin Pruitt, SOM, GSBS (Consultant), Duke Appiah, Public Health (Co-I), [Chhanda Bose](#), SOM, GSBS (MPI), [Boris Decourt](#), SOM, GIA, GSBS (Co-I), John Bertelson, SOM (Consultant).
  12. Assessing MBCT and a neurocognitive battery over telehealth in a rural Hispanic population with family caregivers of persons with AD/ADRD. NIH/NIA R21 grant application. [Jonathan Singer](#), GIA, SOM, TTU (PI), [Volker Neugebauer](#), GIA, SOM, GSBS (Co-I).
  13. Effects of Peanut Butter on Brain Health: Microbiome-Gut-Brain Axis. Peanut Institute Foundation, [Jonathan Singer](#), GIA, SOM (MPI), [Volker Neugebauer](#), GIA, SOM, GSBS (Consultant), Leslie Shen, SOM (PI).
  14. Identifying Trajectories and Transdiagnostic Factors Linking Alcohol Use to Physical Activity Across Adolescence. NIH-R34 grant: Caroline Cummings, TTU Psychology (PI), [Jonathan Singer](#), TTU Psychology, GIA, SOM (Co-I).
  15. Telehealth intervention for Hispanic family caregivers of persons with AD/ADRD in rural Texas. NIH R21 grant: [Jonathan Singer](#), TTU Psychology, GIA, SOM (PI), [Volker Neugebauer](#), GIA, SOM, GSBS (Co-I).
  16. Texas Tech Center for Translational Research and Rural Health. NIH RCMI-U54 grant application: Lance McMahon, SVPRI Office of Research (PI), Julie St. John, SPPH (MPI), Naima Moustaid-Moussa, Executive Director, Institute for One Health Innovation, TTU, TTUHSC (MPI), [Volker Neugebauer](#), GIA, SOM, GSBS

# Collaborative Research

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(Core MPI), [Jonathan Singer](#), GIA, SOM, TTU Psychology (Core PI), Nadia German, SOP (Core-MPI), Jenny Wilkerson, SOP (Core-MPI), Douglas Dendy, SHP (Core-MPI), Heidi Brady, TTU Animal and Food Sciences (Core-MPI), Billy Philips, SOM (Co-I), Jeffrey Dennis, SPPH (Core-Co-I), Christine Garner, SOM (Co-I), Stephanie Stroeve, SOM (Co-I), Carlos Alvarez, SOP (Co-I), Duke Appiah, SPPH (Co-I), Dawei Li, SOM, GSBS (Co-I) .

## ***Student Research Opportunities***

Through our summer research program, the GIA faculty continue to offer exceptional training and mentorship opportunities for students and early-career researchers pursuing studies in aging-related health conditions, neurodegenerative diseases, and brain health.

[Dr. Lawrence](#) mentored a research associate professor, a postdoctoral fellow, two MD/PhD students, two rotating PhD students, a TTU PhD student, three Masters in Biotechnology students, four medical students enrolled in the TTUHSC Distinction in Medical Research Program and the School of Medicine Year 2 Student Research Program, one additional medical student enrolled in the School of Medicine Year 2 Student Research Program, four post baccalaureate students, and seven undergraduate students. Research areas are spread across two preclinical studies, several bioinformatics projects, and Project FRONTIER projects. Students engage in scholarly activity, such as presentations at local, regional, national, and international conferences and are engaged in publishing

peer-reviewed manuscripts. Dr. Lawrence also served on 9 dissertation and thesis committees.

[Dr. Neugebauer](#) co-mentored a medical student in the Medical Student Summer Research Program (MSSRP) for a research project in the GIA on brain (amygdala) activity in pre-death grief in caregivers of an individual with dementia or advanced cancer patient, and he supervised two other medical students in the MSSRP on neuroimmune signaling the brain. Dr. Neugebauer also served as the Faculty Advisor for the newly created student organization “NeuroResearch”. Other mentoring activities included supervising an MD/PhD student for a research rotation in the study of neuroimmune signaling in the brain, a PhD student in the analysis of neuroimmune signaling in brain plasticity, and 5 postdoctoral/postgraduate fellows in the study of neuroplasticity in the brain in preclinical disease models. Dr. Neugebauer also mentored 8 junior faculty at TTUHSC and TTU and he served on 6 dissertation committees and the MD/PhD Physician Scientist Program Committee.

[Dr. Singer](#) oversaw an extensive cohort of trainees, including five doctoral students, four post baccalaureate students, and eight undergraduate students - four of whom are in the honor’s college. Dr. Singer also had one MSSRP student who interned over the summer and currently has a publication under review on the relationship between the amygdala and pre-death grief in care partners of persons with dementia. Overall, these students participated in various research initiatives and contributed to more than eight publications presented and one presented at the TTU Undergraduate Research Conference. In a clinical training, Dr. Singer let three practicums where he supervised six clinical psychology



students for 20 hours a week, providing instruction in neuropsychological assessments (e.g. RBANS; NEO; CVLT), mindfulness-based cognitive therapy, and behavior activation. He also continued the GDEP practicum, overseeing eight doctoral students in 2025. Additional supervision included fix ADHD evaluations. Dr. Singer also served on 20 academic committees: 6 qualifying exam, 2 thesis, 8 comprehensive exam, and 4 dissertation committees.

Dr. Wang mentored three PhD student, Abena Dwamena, Rozenn Moundounga, and Augustina Potokiri, and two postdoctoral fellow, Anand Chakroborty and Rashini Beragama-Arachchi, on preclinical studies examining proteasome dysfunction in Alzheimer's disease pathogenesis and neurodegeneration. He also guided another postdoctoral fellow in the preclinical research project related to stroke. Additionally, Dr. Wang served as a supervisory committee member of three MD/PhD student dissertation committees.

Together, GIA faculty are dedicated to fostering the next generation of scientist and clinicians in the field of aging and brain health through rigorous research experiences, professional development, and clinical training.

### ***Publications by GIA Members (2025)***

1. Asadi Y, Moundounga RK, Chakroborty A, Pokokiri A, **Wang H**. FOXOs and their roles in acute and chronic neurological disorders. *Front Mol Biosci*. 2025 Apr 7; 12:1538472. doi: 10.3389/fmolb.2025.1538472. PMID: 40260403; PMCID: PMC12010098.
2. Azarfar K, **Decourt B**, Sanchez Camacho B, **Lawrence JJ**, Omondi TR, Sabbagh MN. Cholesterol-modifying strategies for Alzheimer disease: promise or fallacy? *Expert Rev Neurother*. 25:521-535, 2025. PMID: 40140971; PMCID: PMC12068190.
3. Barragan CJ, Bayene K, **Decourt B**, Sabbagh MN. Cognitive Trajectory in Concordant Clinical and Neuropathological Diagnosis of Alzheimer's Disease Compared to Clinical Mimics - A Retrospective Analysis of NACC Data (2005–2023). *Neurology*, 104, 2025. doi/10.1212/WNL.0000000000208646 (in press).
4. Bascu, J., Berlinguette, C., Smith, M., Stone, C., Vasquez, C., **Singer, J.**, Rahemi, Z., Funk, M., Abudu-Birresborn, D., Chai, H. (2025). Examining the care priorities, programs, and service needs of rural people with cognitive impairment and dementia in Canada: A scoping review protocol. *BMJ Open*.
5. Batastini A.B, **Singer J**, Trood M, Diehl K, Gray S, & Morgan RD. (2025). A systematic review of therapeutic alternatives to segregation placement: Progress toward rehabilitative goals or a euphemistic rebranding? *Journal of Criminal Justice*. <https://doi.org/10.1016/j.jcrimjus.2025.102468>
6. **Bose C**, **Hindle A**, Smith SC, Strickland J, Zhang C, Guzman I, Baker A, Ponomarev I, **Manczak M**, Shin AC, Pal R, Singh S, **Lawrence JJ**. Low-dose dietary vorinostat increases brain histone acetylation levels and reduces oxidative stress in

- an Alzheimer's disease mouse model. *J Alzheimers Dis.* 106:13872877251352107, 2025. PMID: 40598871; PMCID: PMC12322344.2025.
7. Chakroborty A, Ejaz S, Sternburg JO, Asadi Y, Cai M, Dwamena AA, Giri S, Adeniji O, Ahammed MS, Gilstrap EA, Uddin MG, McDowell C, Liu J, **Wang H**, Wang X. Homeostatic Activation of 26S Proteasomes by Protein Kinase A Protects against Cardiac and Neurobehavior Malfunction in Alzheimer's Disease Mice. *bioRxiv* [Preprint]. 2025 Apr 2:2025.03.28.645869. doi: 10.1101/2025.03.28.645869. PMID: 40236239; PMCID: PMC11996328.
  8. Chrzanowski, L., **Singer, J**, Rerick, P., Elliott, L., Levitt, D. E., Cummings, C., **Decourt, B**, **Molinar-Lopez, V**, & **Neugebauer, V** (2025). The role of inflammation, chronic pain, and hypertension on cognitive functioning in an underserved, rural population: a Project FRONTIER study. *Journal of Clinical and Experimental Neuropsychology*, 1–14. <https://doi.org/10.1080/13803395.2025.2527341>
  9. **Decourt B**, Sabbagh MN, Mielke MM Large-Scale Proteomics: The Missing Link to Finding Cures for Neurodegenerative Diseases? *Nat. Med.* 2025, PMID: 40665051.
  10. Elliott, L., **Singer, J**, Rerick, P., Kelly, J., Chung Yin Chan, A., **Molinar-Lopez, V**, Bertelson, J., **Neugebauer, V**. (2025). Neurocognitive Functioning in Hispanic and Non-Hispanic Individuals in Rural West Texas and the Influence of Sociodemographic Factors. *Applied Neuropsychology: Adult*. <https://doi.org/10.1080/23279095.2025.2524815>
  11. Dwamena A, Asadi Y, Gilstrap E, **Wang H**. Proteasomal dysfunction in the mouse forebrain induces mitochondrial DNA release, cGAS-STING signaling activation, and necroptosis. *J Neuropathol Exp Neurol* Aug 1:nlaf093, 2025. PMID: 40748785.
  12. Dwamena A, Beragama-Arachchi R, **Wang H**. Boosting Neurogenesis as a Strategy in Treating Alzheimer's Disease. *Int J Mol Sci.* 2025 (in Press).
  13. Ejaz S, Sternburg JO, Rezvani K, Ahammed MS, Giri S, Liu J, **Wang H**, Wang X. Ser14-phosphorylated Rpn6 Limits Proteostasis Impairment and Pathology in Both Brain and Heart of Tauopathy Mice. *bioRxiv* [Preprint]. 2025 Mar 25:2025.03.24.645024. doi: 10.1101/2025.03.24.645024. PMID: 40196506; PMCID: PMC11974871.
  14. Elliott L, **Singer J**, Rerick P, Kelly J, Chan ACY, Abu-Samaha A, **Molinar-Lopez V**, Bertelson J, **Neugebauer V**. Neurocognitive functioning in Hispanic and non-Hispanic individuals in rural West Texas and the influence of sociodemographic factors. *Appl. Neuropsychol. Adult* 32: 1–13, 2025. PMID: 40580436.
  15. Fadalla, C., **Singer, J**, Rerick, P., Elliott, L., McLean, E., Schneider, S., **Molinar-Lopez, V**, **Neugebauer, V** (2025). Neurocognitive Disparities: Investigating Ethnicity and Mental Health in Rural Aging Adults. *AGING*, 17, <https://doi.org/10.1080/13803395.2025.2527341>



- doi.org/10.18632/aging.206166.
16. LeDuc, M.K., Mitchell, S.M., Marvin, C., Sparks, S., Ingram, P.B., **Singer, J.** (2025). Using MMPI-3-Derived Indices of Thwarted Belongingness and Perceived Burdensomeness to Predict Suicide Ideation among College Students with Elevated Depressive Symptoms. *Journal of Personality Assessment*. Online Only. <https://doi.org/10.1080/00223891.2025.2464863>
  17. Lee GJ, Hode V, Georgieva T, Rau J, Dodick DW, Schwedt TJ, **Neugebauer V**, Porreca F, Navratilova E. Prolactin-induced sensitization of trigeminal nociceptors promotes migraine co-morbidity in endometriosis. *Cephalalgia*. 2025 Jan;45(1):3331024241313378. doi: 10.1177/03331024241313378. PMID: 39814523.
  18. Mazzitelli M, Kiritoshi T, Presto P, Hurtado Z, Antenucci N, Ji G, **Neugebauer V**. BDNF signaling and pain modulation. *Cells* 14: 476 (35 pp), 2025. PMID: 40214430. PMC11987912.
  19. McCready R, Morris C, Antwi-Adjei p, Pourghaed M, Sarangi A, **Boles A, Ramirez-Velandia F, Kopel J, Culberson J, Singer J, Ashworth G, Sabbagh MN, Neugebauer V, Decourt D, Shin AC, Lawrence JJ**. Relationships between Diabetes, Vitamin D Status, Neuropsychological Functioning, Depression, and Hispanic Ethnicity in Older Rural West Texans: A Project FRONTIER Study. *Nutr. Diabetes* (accepted).
  20. Narasimhan KKS, Chettiar PB, Kiritoshi T, Ji G, **Neugebauer V**, Dravid SM. Trans-synaptic signaling through the glutamate receptor delta-1 and cerebellin-1 facilitates autophagic flux in central amygdala during chronic pain. *Autophagy*, 2025 (in press).
  21. **Neugebauer V**, Antenucci N. Perineuronal nets in the brain: New vistas in pain mechanisms. *Pain*, 166: 967–969, 2025. PMID: 40112163. NIHMS2050102.
  22. Potokiri A, **Wang H**. Proteostasis and Neuroinflammation in Alzheimer’s Disease. *J Integrative Neurosci*. 2025 (in press).
  23. Rerick P, Livingston T, & **Singer J.** (2025). The Interplay Between Men’s Self-Perceived Attractiveness and Ratings of Women’s Sexual Intent. *Behavioral Sciences*.
  24. Sabbagh M.N., Kennedy J., Majeed J., **Decourt B**. Alzheimer’s Disease: Clinical Trials to Watch. *Med*. 6, 100771 (4 pp), 2025.
  25. Schneider, S., Livingston, T.N., Elliott, L., Chrzanowski, L., Abu-Samaha, A., **Singer, J.** (2025). Feelings of Power Scale for Family Caregivers: Development, Exploratory, and Confirmative Analysis. *Clinical Gerontologist*. 48. <https://doi.org/10.1080/07317115.2024.2399588>.
  26. Shen C-L, Hassan T, Presto P, Payberah D, Devega R, Wakefield S, Dunn DM, **Neugebauer V**. Novel insights into dietary bioactive compounds and major depressive disorders: evidence from animal studies and future perspectives. *J. Nutr*.

- 155:1583-1613, 2025. PMID: 40274236; PMCID: PMC12264568.
27. Shen C-L, Santos JM, Elmassry MM, Chen F, Ji G, Presto P, Kiritoshi T, Liu X, **Neugebauer V**. Crosstalk between gut microbiota, fecal metabolites, and amygdala neuropathology genes after ginger polyphenols administration in female rats with neuropathic pain: evidence for microbiota-gut-brain connection. *Nutrients* 17:1444 (22 pp), 2025. PMID: 40362753; PMCID: PMC12073668.
  28. Sims, I., Shircliff, K., **Singer, J**, & Cummings, C. (2025). Health-Related Self-Efficacy Moderates the Relationship Between Pain and Functional Impairment: A Cross-Sectional Study of a Mixed Health Sample of Emerging Adults with Chronic Illnesses. *Pain Management Nursing*. <https://doi.org/10.1016/j.pmn.2025.06.004>.
  29. Singh SP, **Dhanasekara CS**, Melkus MW, Bose C, Khan SY, Sardela de Miranda F, Mahecha MF, Gukhool PJ, Tonk SS, Jun SR, Uygun S, Layeequr Rahman R. Relevance of Cellular Homeostasis-Related Gene Expression Signatures in Distinct Molecular Subtypes of Breast Cancer. *Biomedicines*. 2025 Apr 28;13(5):1058. PMID: 40426890; PMCID: PMC12108624.
  30. Skawratananond S, McCrea G, Lie P, Buxton MB, Daly SP, Vojtkofsky NA, Smith SC, Zhang C, Hernandez M, **Hindle A**, Logsdon AF, **Lawrence JJ**. The Synergistic Interplay between Vitamin A, Dietary Fiber, and the Microbiota-Gut-Brain Axis: A Potential Mechanism for Preventing Alzheimer's Disease. *Am J Physiol Gastrointest Liver Physiol* 329: G484-G499, 2025. PMID: 40796226.
  31. Triplett O, Varda N, **Decourt B**, Sabbagh MN. Nonamyloid-beta active immunization for the treatment of Alzheimer's disease. *Expert Opinion On Investigational Drugs*, 2025 (in press)
  32. Triplett O, Varda N, **Decourt B**, Vasconcellos R, Sabbagh MN. Active immunization targeting amyloid  $\beta$  for the treatment of Alzheimer's disease. *Neurodegener Dis*. 2025 May 10:1-22. PMID: 40349697
  33. Tsurukawa FK, Mao Y, Sanchez-Villalobos C, Khanna N, Crasto CJ, **Lawrence JJ**, Pal R. Cross study transcriptomic investigation of Alzheimer's brain tissue discoveries and limitations. *Sci Rep* 15, 16041 (2025). PMID: 40341634. PMC12062235.
  34. Yoo-Jeong, M., **Singer, J**, Bergeron, C.D., Southerland, J.L., Won Chai, H., Pickett, A.C., Zhou, Y., Vazquez, C., Bascu, J., Kwong, K., Jung, W., Washington, T.R., Ory, M.G., Smith, M. (2025). Factors Related to Social Disconnectedness among Older Unpaid Caregivers: A Cross-Sectional Study. *Frontiers in Public Health*. Online Only. <https://10.3389/fpubh.2025.1589103>

## Meetings Attended and Presentations by GIA Researchers (2025)

1. **Lawrence** (2025, July) "The intersection of



- oxidative stress, vitamin A, and histone acetylation in Alzheimer's disease". CPIN Distinguished Lecture, Toronto, Canada.
2. **Lawrence** (2025, April) "KCNIP1: A Potential Cellular Mechanism Underlying Cellular Hyperexcitability in Alzheimer's Disease". Center for Membrane Protein Research XVI Annual Symposium, Texas Tech University Health Sciences Center, Lubbock, TX.
  3. **Lawrence** (2025, February) "Nutritional deficiencies as drivers of Alzheimer's disease pathogenesis and progression." Chemistry Seminar, Department of Chemistry, Midwestern State University, Wichita Falls, TX.
  4. **Neugebauer** (2025, November) "Neuroplasticity and Brain Health - Bridging the gap between basic science and clinical application through research, education and community engagement". UTMB, Galveston, TX.
  5. **Neugebauer** (2025, October) "Amygdala neuroplasticity in the transition to chronic pain – Role of neuroimmune signaling". Gulf Coast Consortia Pain Workshop, Pain Resolution and Chronification, Rice University Houston, TX (Zoom seminar). **Neugebauer** (2025, May) "Neuroplastic changes in the amygdala in the transition to chronic pain". Department of Genetics at Washington University School of Medicine, Saint Louis, MO.
  6. **Neugebauer** (2025, May) "Neuroplastic changes in the amygdala in the transition to chronic pain". Department of Genetics at Washington University School of Medicine, Saint Louis, MO.
  7. **Neugebauer** (2025, April) "Neuroplastic changes in the amygdala in the transition to chronic pain". University of New Mexico Health Sciences Center, Albuquerque, NM.
  8. **Neugebauer** (2025, March) "Neuroplastic changes in the amygdala in the transition to chronic pain". NIH Pain Seminar Series, Bethesda, MD. – Postponed
  9. **Singer** (2025, November). Importance of Memory Screening: Observing National Memory Screening Day. [Invited Talk]. TTUHSC Healthy Aging Lecture Series. Lubbock, TX.
  10. **Singer** (2025, October). Utilizing Telehealth to Improve Outcomes in Rural Areas for Care Partners of Persons with Dementia [Invited Talk]. Society of Behavioral Medicine Digital Health SIG. Online.
  11. **Singer** (2025, October). The Future of the GIA Comprehensive Memory Clinic. [Invited Talk]. National Advisory Board TTUHSC. Lubbock, TX.
  12. **Singer** (2025, September). Mind Matters: Caring for Your Brain at Every Age. [Invited Talk]. Laura Bush Foundation Luncheon. Lubbock, TX.
  13. **Singer** (2025, August) "The Importance of Early Diagnosis and Care Planning for Persons with Dementia and their Care Partners". Home Healthcare Luncheon. Lubbock, TX.
  14. **Singer** (2025, August) "Alzheimer's Disease and Related Dementias: Evaluation and Management". Keynote. El Paso Area Advanced Practice Nurses 13th Annual Conference. El Paso, TX.
  15. **Singer** (2025, July) "The Importance of a Comprehensive Assessment for Dementia". Internal Medicine Amarillo, TTUHSC.
  16. **Singer** (2025, June) "Investigating the CMS GUIDE program for Lubbock and Rural West Texas". Home Instead, June 2025.

# Collaborative Research

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17. **Singer** (2025, June) "Interventions for Individuals with Dementia and Care Partners". Keynote. Area Agency on Aging. Amarillo, TX.
18. **Singer** (2025, June) "Engaging in Valued Behaviors While Caring for Someone with Dementia". Care partners academy, Texas Tech Health Science Center. Lubbock, TX.
19. **Singer** (2025, June) "Exploring Dementia: New Interventions for Individuals with Dementia and Care Partners". Keynote. Alzheimer's Association Texas Caregiver Conference. Midland.
20. **Singer** (2025, June) "Improving Management of Challenging Behaviors in Dementia Patients". Covenant Health Grand Rounds. Lubbock, TX.
21. **Singer** (2025, May) "A Discussion About the Alzheimer's Documentary-Matter of Mind: My Alzheimer's". PBS and KTTZ. Lubbock, TX
22. **Singer** (2025, May) "The Importance of Early Detection of Dementia-Utilizing a Comprehensive Memory Clinic". Internal Medicine Grand Rounds. Lubbock, TX
23. **Singer** (2025, April) Invited talk at Our Lady Grace Catholic Church, Lubbock.
24. **Singer** (2025, March) Invited talk at Texas Department of State Health Services, Austin, TX.
25. **Singer** (2025, March) Invited key note talk at Alzheimer's Association Texas Caregiver Conference, El Paso, TX.
26. **Singer** (2025, February) "Importance of Early Cognitive Screening As We Age: A Look At The New Memory Clinic". Parkinson's Society of Lubbock, TX.
27. **Singer** (2025, February) "Understanding Challenging Behaviors in Persons with Frontal Temporal Dementia". STAR CARE, Texas Tech University Health Science Center. Lubbock, TX.

28. **Singer** (2025, January) "Importance of Early Cognitive Screening As We Age: A Look at the New Memory Clinic". Care partner academy, Texas Tech Health Science Center. Lubbock, TX.

## **Poster Presentations by GIA Researchers (2025)**

1. \*Aleman, M., Antenucci, N., **Neugebauer, V.** IL-23r signaling in the right central amygdala modulates pain and anxiety-like behaviors in a rat model of chronic neuropathic pain. Soc. Neurosci. Abstr. 8696, 2025.
2. \*Antenucci, N., Porreca, F., **Neugebauer, V.** CGRP signaling modulates central amygdala CRF neuron activity in a mouse model of migraine. Soc. Neurosci. Abstr. 8547, 2025.
3. \*Baker A, Smith SC, Salinas S, Bose C, Skawratananond S, Tanner N, **Lawrence JJ.** Behavioral and Cellular Effects of Vitamin A Deficiency in a Mouse Model of Alzheimer's Disease. Alzheimer's Disease International Conference, 2025
4. Barragan, C., Beyene, K.M., **Decourt, B.**, Sabbagh M.N. (2025) Cognitive Trajectory in Concordant Clinical and Neuropathological Diagnosis of Alzheimer's Disease Compared to Clinical Mimics-A Retrospective Analysis of NACC Data (2005–2023). American Academy of Neurology (AAN) Annual Meeting, San Diego, CA, USA.
5. \*Batastini A. B, **Singer J**, Diehl K, Trood M, Morgan, R. D. (2025, March). Therapeutic alternatives to restricted housing: Progress toward rehabilitative goals or a euphemistic rebranding? Annual Conference of the American Psychology-Law Society, San Juan, Puerto Rico.



6. Behn, N., **Neugebauer, V., Singer, J.** The Neural Exposome and its Influence on Neurocognitive Functioning: A Project FRONTIER Study, TTU Undergraduate Conference, 2025.
7. Bitar, G., Alban, S., Beyene, K.M., **Decourt, B.**, Sabbagh, M.N. (2025) Correlations of CSF Biomarkers of Alzheimer's Disease with Cognitive Measures in MCI and AD Dementia. American Academy of Neurology (AAN) Annual Meeting, San Diego, CA, USA.
8. **\*Bose C, Hindle A**, Baker A, Smith SC, Singh SP, **Lawrence JJ**. The combination of all-trans retinoic acid and vorinostat protects neurons from oxidative stress via the Nrf2-ARE pathway. Alzheimer's Disease International Conference, 2025.
9. \*Chakroborty, A., **Wang, H.** Proteasomal phosphorylation attenuates oxidized proteins in 5xFAD mice. Soc. Neurosci. Abstr. PSTR382, 2025.
10. **\*Chen, Y., Yin, X.**, Kiritoshi, T., **Manczak, M., Hindle, A.**, Ji, G., **Neugebauer, V.** Cerebellin1 modulates the autophagy pathway through GluD1 receptors in the J20 mouse model of Alzheimer's disease. Soc. Neurosci. Abstr. 5887, 2025.
11. \*Cummings C, **Singer J**, Rerick P.O, & Lansing A.H. Examining the relationship between delay discounting and social risk factors for overweight and obesity. Society for Social Neuroscience annual conference, Lisbon, Portugal, 2025.
12. \*Cummings C, Livingston T.N, Rerick P.O, & **Singer J**. Health behavior and health-related implicit attitudes among persons experiencing food insecurity. Society for Social Neuroscience annual conference, Lisbon, Portugal, 2025.
13. \*Evans L, Baggett M, del Real L, McCarn E, Dominguez A, **Lawrence JJ**, Keyel PA. Lupus-like phenotypes and neurological degeneration develop in mice upon deletion of Dnase1L3. Soc. Leukocyte Biology, 2025.
14. \*Gorjipour, F., Asadi, Y., Gilstrap, E.A., **Wang, H.** Disrupting FOXO4 in non-neuronal cells protects neurons from ischemia/reperfusion caused neuronal injury. Soc. Neurosci. Abstr. PSTR443, 2025.
15. **\*Hindle, A., Chen, Y., Yin, X., Manczak, M., Neugebauer, V.** Evidence for transsynaptic complex disruption in Alzheimer's disease patients. Soc. Neurosci. Abstr. 5942, 2025.
16. \*Ji, G., **Neugebauer, V.** Interleukin-17a and neuroimmune signaling in the central amygdala in a chronic neuropathic pain model. Soc. Neurosci. Abstr. 4637, 2025.
17. \*Khanna N, Halbgewachs K, Tsurukawa FK, Sanchez-Villalobos CA, Castro I, **Bose C**, Crasto C, Pal R, Crasto C, **Lawrence JJ**. KCNIP1 at the convergence of retinoic acid receptor regulation, ion channel dysfunction, and Alzheimer's Disease: A bioinformatics study. Soc. Neurosci. Abstr., 2025.
18. \*Kim A, **Hindle A**, Baker A, Smith AC, Singh SP, **Lawrence JJ, Bose C**. The synergistic interplay between all-trans retinoic acid and vorinostat in blocking oxidative stress and histone deacetylation. Faculty for Undergraduate Neuroscience, 2025.
19. \*Kiritoshi, T., Presto, P., Ponomareva, O., Cardenas, J.T., Ji, G., Ponomarev, I., **Neugebauer, V.** Effects of chemokine CXCL10/CXCR3 signaling on central amygdala neurons under normal and neuropathic pain conditions. Soc. Neurosci. Abstr. 7507, 2025.
20. **\*Lawrence JJ, Hindle A**, Baker A, Smith S, Singh S, **Bose C**. The combination of all-trans



- retinoic acid and vorinostat protects neurons from oxidative stress via the Nrf2-ARE pathway. Soc. Neurosci. Abstr., 2025.
21. \*Lie P, Baker A, Smith S, Strickland J, Skawratananond S, Kisby BR, Shanmugam S, **Hindle A**, Telias M, Ponomarev I, **Lawrence JJ**. The Retinoic Acid Hypothesis in Alzheimer's Disease: Transcriptomic Profiling Reveals Cell Clusters in the Dentate Gyrus Implicated in Regulation of Excitation/Inhibition Balance. Soc. Neurosci. Abstr., 2025.
  22. \*Mr. Lie was selected as a recipient of a \$1000 2025 Society for Neuroscience Trainee Professional Development Award (TPDA).
  23. \*Liu, X., Pham, P., Ji, G., Kiritoshi, T., **Neugebauer, V**, Shen, C.L. Goji Berry Supplementation Improves Brain Health by Modulating Neuroinflammation and Neurotransmission in the Frontal Cortex and Hippocampus in the LPS Rodent Model of Chronic Fatigue. Soc. Neurosci. Abstr. 3499, 2025.
  24. \*Liu, X., Pham, P., Ji, G., Kiritoshi, T., **Neugebauer, V**, Shen, C.-L. Goji Berry Supplementation Reduces Pain Hypersensitivity Through Gut-Brain Axis Regulation of Amygdala and Colon Gene Expression in an LPS Induced Rat Model of Chronic Fatigue. Soc. Neurosci. Abstr. 16703, 2025.
  25. \*Mazzitelli, M., Antenucci, N., **Neugebauer, V**. Activation of amygdala CRF neurons drives neuroimmune signaling. Soc. Neurosci. Abstr. 8170, 2025.
  26. \***Neugebauer, V**, Antenucci, N., Kiritoshi, T., Ponomareva, O. Inhibition of amygdala CRF neurons at the induction stage of chronic neuropathic pain has long-lasting inhibitory effects on pain behaviors. Soc. Neurosci. Abstr. 4604, 2025.
  27. \*Shen, C.-L., Elmassry, M., Liu, X., **Neugebauer, V**. Effects of dietary geranylgeraniol supplementation on pain-associated behaviors, mitochondrial homeostasis, and neuroinflammation, but not gut microbiome, in streptozotocin-induced diabetic rats. 23rd International Congress of Nutrition IUNS-ICN, ICNAB-01128, 2025.
  28. \***Singer J**, Parmar H, Elliott L, McClendon A, Rerick, P, Cummings C. Evaluating the neurobiological underpinnings of pre-death grief in family caregivers of persons with dementia over a year. Society for Social Neuroscience annual conference, Lisbon, Portugal, 2025.
  29. \*Yakhnitsa, V., Ji, G., Antenucci, N., Navratilova, E., Porreca, F., **Neugebauer, V**. Impaired prolactin regulation of kappa-opioid neurons in hypothalamus promotes functional pain. A sex-difference perspective. Soc. Neurosci. Abstr. 7532, 2025.



In 2025, Project FRONTIER (Facing Rural Obstacles to Healthcare Now Through Intervention, Education, and Research) continued to advance the Garrison Institute on Aging's mission of improving health outcomes and expanding research in rural communities. This long-standing longitudinal study examines the factors that shape brain health, aging, mental health, and chronic disease—particularly within underserved and geographically isolated populations.

Strong collaborative partnerships remain central to Project FRONTIER's success. Our ongoing work with Cochran County Memorial Hospital, Parmer County Community Hospital, and the Friona Medical Office has allowed us to maintain a meaningful presence in these communities, support local healthcare efforts, and ensure high-quality data collection. Outreach and research activities in Bailey County also continued, further strengthening the project's reach and impact across rural West Texas.

Project FRONTIER plays a critical role in advancing research related to aging and neurodegenerative diseases while deepening our understanding of the unique barriers faced by rural populations. Through community engagement, multidisciplinary research, and sustained partnerships, the GIA continues to contribute to evidence-based strategies that promote brain health and enhance healthcare delivery in these vital regions.

A significant milestone for 2025 is the recruitment of Dr. Samudani Dhanasekara, MBBS, MS, Ph.D.,

who joined as the new Principal Investigator for Project FRONTIER. Dr. Dhanasekara brings a strong background in medicine and graduate training in Nutritional Sciences from Texas Tech University. Her extensive experience in basic, translational, and clinical research—as well as her expertise in epidemiology and biostatistics—will greatly enhance the scientific direction and growth of Project FRONTIER. She will serve as an Assistant Professor in the GIA and the TTUHSC School of Medicine's Department of Pharmacology and Neuroscience.

For more information about Project FRONTIER, please visit our website: <https://www.ttuhsu.edu/centers-institutes/garrison-aging/project-frontier.aspx>



**T**he Garrison Institute on Aging (GIA) continues to strengthen its Brain Bank as a vital resource supporting research, education, and clinical understanding of Alzheimer's disease and related dementias. The Brain Bank provides an essential service to families by offering no-cost brain autopsies, delivering definitive neuropathological diagnoses that bring clarity and closure to loved ones affected by dementia.

In 2025, the Brain Bank housed more than 225 brain specimens, with at least 80 identified as suitable for molecular and translational research. These high-quality samples are actively supporting research projects, grant development, and ongoing studies, including investigations into neuroplastic changes associated with Alzheimer's disease, with publications currently in preparation.

Significant progress was made to align the Brain Bank with national ADRC standards. All specimens undergo routine quality control testing, including RNA integrity number (RIN) assessments, alongside detailed neuropathological diagnosis and precise neuroanatomical identification of key brain regions. Protocols for tissue collection, preservation, organization, retrieval, and analysis continue to be refined to ensure consistency and research excellence.

The GIA Brain Bank is also positioned to become part of a centralized TTUHSC biobank, expanding opportunities for interdisciplinary collaboration and large-scale research. Faculty member Dr. Chen, in collaboration with Dr. Keith Bishop and the TTUHSC Institute of Anatomical Sciences, has advanced tissue organization and regional brain identification efforts. The GIA also

maintains strong partnerships with national experts, including Drs. C. Dirk Keene and Kathryn P. Scherpelz (University of Washington), Dr. Brittany Dugger (UC Davis), and the TTUHSC El Paso Brain Bank.

Through continued refinement, collaboration, and infrastructure growth, the GIA Brain Bank remains a cornerstone of dementia research and education, positioning the Institute to contribute meaningfully to future advances in Alzheimer's disease diagnosis, treatment, and prevention.





## ***Translational Neuroscience and Pharmacology Lecture Series***

**01/28/2025**

An inconvenient truth: pathophysiological remodeling of the inner retina in photoreceptor degeneration | Distinguished Guest Speaker | Michael Telias, Ph.D.

**02/11/2025**

Harnessing Big Data for Neurological Research: Insights from Secondary Data Analysis in Stroke and Beyond | Distinguished Guest Speaker | Chathurika Samudani Dhanasekara, MBBS, MS, Ph.D.

**02/18/2025**

Consideration for implementation of blood biomarkers and cognitive assessments in primary care | Distinguished Guest Speaker | Michelle Mielke, Ph.D.

**02/25/2025**

S1PR1 drives neuropathic pain states | Distinguished Guest Speaker | Daniela Salvemini, Ph.D.

**03/3/2025**

Investigating the Behavioral and Cellular Effects of Vitamin A deficiency in a Mouse Model of Alzheimer's Disease | Graduate Student | Adam Baker

**03/04/2025**

Revealing the Role of Food Insecurity on Cognitive Aging: Findings from the Healthy Retirement Study | Distinguished Guest Speaker | Haobing Qian, Ph.D.

**03/11/2025**

Graduate Student | Caezaan Keshvani

**03/18/2025**

Graduate Student | Praneetha Panthagani

**03/25/2025**

The Role of Reproductive CRES in the Mammalian Brain | Graduate Student | Alejandra Gomez

**04/15/2025**

P2X7 receptor inhibition ameliorates ubiquitin-proteasome system dysfunction associated with Alzheimer's disease | Graduate Student | Abena Dwamena

**04/16/2025**

Administration of Butyl Ether Minocycline through Food Pellets in Mice | Graduate Student | Neha Sawant

**04/22/2025**

Exploring the Utility of Cannabidiol and Buspirone, in Combination for Pain and Anxiety | Graduate Student | Robert Barnes

**04/23/2025**

Investigating the mechanisms of 10-Butyl Ether Minocycline in a Immune Induced Escalation model for alcohol use disorder | Graduate Student | Praneetha Panthagani

**04/29/2025**

Effects of TLR3 activation on pain sensitivity and temporal immune profiles of brain and blood in male and female FVB/B6 F1 hybrid mice | Graduate Student | Philip Adjei



**05/6/2025**

Brain Vascular Dysfunction after Innate Immune Activation Contributes to Excessive Ethanol Consumption | Graduate Student | Brent Kisby

**09/16/2025**

Insights into hippocampal function from an unexpected: hippocampal area CA2 | Distinguished Guest Speaker | Serena Dudek, Ph.D.

**09/23/2025**

Dietary Vitamin A Supplementation Improves Spatial Cognitive Performance in a Mouse Model of Alzheimer's Disease | M.D./Ph.D. Student | Adam Baker

**10/14/2025**

Graduate Student | Paul Lie

**10/21/2025**

Research on Monoamine Transporters Reveals Promising Avenues for Treating Brain Disorders | Distinguished Guest Speaker | Gonzalo Torres, Ph.D.

**10/28/2025**

Graduate Student | Synanth Texocaelum

**11/4/2025**

Graduate Student | Dakolta Robison

**11/11/2025**

Graduate Student | Mikaela Aleman

**11/18/2025**

Graduate Student | Abena Dwamena

**11/25/2025**

Graduate Student | Philip Adjei

**12/2/2025**

The Role of APOE and the immune response in Amyloid-induced Tauopathy and Tau-mediated Neurodegeneration | Distinguished Guest Speaker | David Holtzman, Ph.D.

**12/9/2025**

Graduate Student | Abigail Torres





In the fall of 2025, the Garrison Institute on Aging (GIA) launched Project ECHO, a pilot program designed to bring specialized dementia education to healthcare providers serving rural communities. Using innovative tele-mentoring and collaborative learning models, the program bridges the gap in dementia knowledge and care resources between urban centers and more isolated areas, ensuring that patients and families have access to high-quality care regardless of location.

This initiative is supported through \$125,000 in federal funding from the Texas Department of State and Health Services (DSHS) via the Centers for Disease Control and Prevention's Building Our Largest Dementia Infrastructure grant. The funding enables continuing education, consultation, and mentoring opportunities for healthcare professionals, employing a public health approach aimed at improving dementia care statewide through September 30, 2026.

To manage day-to-day operations, curriculum development, and provider engagement, GIA hired two part-time coordinators, Janie De la cerda and Erin Baker. Through the pilot program, rural healthcare professionals receive targeted education, case-based learning, and ongoing mentorship from dementia specialists at GIA, enhancing their ability to diagnose, manage, and support patients with memory-related conditions.

Key collaborators for Project ECHO include Dr. Jonathan Singer, Ph.D., Clinical Psychologist and Memory Clinic Director at GIA, who leads the multidisciplinary hub of dementia specialists, and Dr. Ariel P. Santos, Chair of the TTUHSC Department

of Surgery and Director of the School of Medicine Telemedicine Program, whose oversight ensures alignment with telehealth initiatives across Texas and Louisiana. The program also partners with Kelly Alvarez, Director of the TexLa Telehealth Resource Center, to maximize access to training, resources, and mentorship for rural providers.

As the first year of this pilot program, Project ECHO is already positioned to make a meaningful impact on dementia care in rural Texas. By equipping local providers with evidence-based knowledge and practical tools, strengthening rural healthcare teams, promoting early intervention, and fostering collaboration with dementia specialists, the program aims to improve outcomes for individuals and families affected by Alzheimer's disease and other dementias throughout West Texas and surrounding regions.







**T**he Garrison Institute on Aging (GIA) continues to strengthen its Community Outreach and Education division, advancing our mission to enhance the health and well-being of older adults across West Texas. With a special emphasis on Alzheimer's disease, dementia, and other age-related conditions, our team delivers programs that inform, empower, and support community members, caregivers, and healthcare partners.

In 2025, we expanded our outreach efforts to ensure greater accessibility and engagement. By offering a blend of in-person and virtual programming, we are able to connect with a broader audience and meet individuals where they are, whether in community centers, clinical settings, or their own homes. These initiatives focus on increasing awareness of aging and brain health, reducing stigma around dementia, and providing practical tools and resources for those navigating cognitive and health-related challenges.

Through education, collaboration, and community involvement, the GIA remains committed to supporting older adults and their families and fostering a healthier, more informed community.

## ***Dementia Friendly Lubbock (DFL)***

Dementia Friendly Lubbock (DFL) continues to be a cornerstone initiative of the Garrison Institute on Aging (GIA) at Texas Tech University Health Sciences Center, reflecting our commitment to improving the lives of individuals living with dementia and supporting their families and caregivers. As a member of the national Dementia Friendly America network, DFL is

dedicated to building a more inclusive, compassionate community that recognizes and responds to the needs of those affected by dementia.

Education and community engagement remain central to DFL's work. A key component is the Dementia Live program, which provides an immersive, hands-on experience simulating the cognitive and sensory changes associated with dementia. In 2025, GIA delivered Dementia Live sessions to families, caregivers, healthcare professionals, local organizations, and elementary students. On May 6, 2025, students from Brown Elementary visited TTUHSC for STEM Day, exploring the structure and function of the brain and participating in an age-appropriate Dementia Live session. Teachers and the principal also joined the session, gaining insight into cognitive changes in aging and the importance of empathy in caregiving. These experiences foster early awareness of brain health and inspire the next generation of learners.

DFL continued to expand its community partnerships in 2025, including a collaborative plan with the City of Lubbock Mayor's Office to bring Dementia Live and the new Compassionate Touch program to local businesses and community groups. Compassionate Touch teaches compassionate interaction techniques that reduce anxiety and improve care for individuals with dementia. Through these initiatives, DFL is helping to cultivate dementia-friendly communities throughout Lubbock and surrounding counties, ensuring that older adults and individuals living with dementia are valued, supported, and never alone.

## **2025 National Alzheimer's Disease Awareness Month**

In November 2025, the Garrison Institute on Aging (GIA) proudly hosted its 6th Annual Alzheimer's Awareness Month events, reaffirming its commitment to supporting individuals and families affected by Alzheimer's disease. These events coincided with National Alzheimer's Disease Awareness Month, established in 1983 by President Ronald Reagan to raise awareness of Alzheimer's disease and inspire action to combat its impact.

Alzheimer's disease remains the most common cause of dementia in older adults and presents a growing public health challenge. According to the 2022 Alzheimer's Disease Facts and Figures report by the Alzheimer's Association, an estimated 6.5 million Americans aged 65 and older are living with the disease, a number projected to rise to 12.7 million by 2050. In Texas, cases among older adults are expected to increase by 22.5%. These figures underscore the importance of events like the symposium and lecture series, which provide education, resources, and support for caregivers and families.

The month began on November 1, 2025, with a community member event titled *"The Alzheimer's Journey: Diagnosis to Care."* Keynote speakers Guillermina R. Solis, Ph.D., Associate Professor of Nursing at the University of Texas at El Paso, and John Bertelson, M.D., FAAN, Associate Director and Medical Director at TTUHSC and Assistant Professor of Neurology and Psychiatry at UT Austin Dell Medical School, highlighted the critical role of caregivers and

provided practical strategies for supporting individuals living with Alzheimer's disease.

The highlight of the month was the 6th Annual Alzheimer's Awareness Symposium, centered on the theme of caregiving. Dr. Solis delivered compelling presentations titled *"The 4Ms of Age-Friendly Care for Older Adults"* and *"Beyond Words: Caregiver Communication in Dementia,"* emphasizing the essential role of caregivers in dementia care and offering strategies to safeguard their well-being. The symposium featured an expert-led panel discussion, equipping attendees with practical insights into dementia care and the latest research advancements. Dr. Bertelson also provided updates on emerging therapies for individuals living with Alzheimer's disease. A key component of the symposium was the participation of local resource vendors, who offered information and services tailored to the Lubbock community, ensuring attendees had access to practical resources and support networks.

On November 11, 2025, the program featured *"Remember This?"*, a film by Genevieve Durham Decesaro, M.F.A., Professor of Dance and Vice Provost for Faculty Success at TTU, and Rachel Hirshorn-Johnston, M.F.A., Associate Professor of Voice & Speech, School of Theater and Dance at TTU. The presentation highlighted creative approaches to understanding memory and dementia, blending art and science to foster awareness.

November 14, 2025, GIA hosted an early Memory Screening Day at the TTUHSC Amarillo Campus, featuring Dr. Adrienne Johnson, Ph.D., as the guest speaker. Attendees were offered memory screenings throughout the day, and multiple local resource



vendors were available to provide information and support. This event extended the reach of Alzheimer's Awareness Month into the Texas Panhandle, allowing participants to access vital resources and screenings close to home.

Community education continued on November 18, 2025, with a Healthy Aging Lecture Series event titled *"Importance of Memory Screening: Observing National Screening Day."* Jonathan Singer, Ph.D., Clinical Psychologist and Memory Clinic Director at TTUHSC, shared insights on the value of memory screening and early detection, emphasizing proactive approaches to brain health. As part of this event, memory screenings were conducted for attendees, providing an important opportunity for individuals to assess their cognitive health and connect with resources for follow-up support.

The month concluded on December 2, 2025, with the Distinguished Lecture Series, featuring David M. Holtzman, M.D., Barbara Burton and Rueban M. Morriss III, Distinguished Professor and Director of the Knight Alzheimer's Disease Research Center at Washington University School of Medicine. Dr. Holtzman presented on the *"Role of APOE and the Immune Response in Amyloid-Induced Tauopathy and Tau-Mediated Neurodegeneration,"* providing cutting-edge insights into Alzheimer's research and highlighting emerging avenues for scientific discovery.

## **Healthy Aging Lecture Series**

Since its launch in 2005, the Healthy Aging Lecture Series has been a vital part of the Garrison Institute on Aging's mission to educate and engage the community. This long-standing program offers the public valuable insights into health, wellness, and innovative research, with a particular focus on topics relevant to seniors.

Held every fourth Wednesday of the month during the Fall and Spring, the series features local community experts sharing important information about chronic diseases such as Alzheimer's, cardiovascular conditions, and other significant health issues.

### **January 22, 2025**

"Importance of Early Cognitive Screening as We Age: Look at the New Memory Clinic" | Jonathan Singer, Ph.D., Assistant Professor, Director GRILL Lab, Director GIA Comprehensive Memory Clinic, Assistant Professor, Department of Pharmacology and Neuroscience, Garrison Institute on Aging, TTUHSC

### **February 26, 2025**

"The Evolution and Current Aspects of Diagnostics and Treatment for Prostate Cancer" | Werner De Rise, M.D., Ph.D., Professor, Department of Urology, TTUHSC

# Community Outreach

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## **March 26, 2025**

“What to Know During and After Kidney Disease Awareness Month” | Amie Duemer, Director of South Plains Kidney Foundation

## **April 23, 2025**

“Can You Hear It?: Listening and Learning about Audiology” | Steven Zupancic, Au.D., Ph.D., CCC/A, FAAA, Associate Professor SOM Department of Otolaryngology – Audiology, Faculty Advisor TTUHSC Chapter of the Student Academy of Audiology, Adjunct Graduate Faculty TTU Educational Psychology and Leadership

## **May 8, 2025**

“Maintaining the Self: A Guide to Mental Health” | David Schroeder, Ph.D., Assistant Professor School of Health Professions, Clinical Coordinator of Professions Master Mental Health Counseling Program

## **September 25, 2025**

“Medication Cleanout: What To Do With Expired Meds” | Ronica Farrar, Program Manager TPPC, TTUHSC

## **October 22, 2025**

“Age Strong: A Focus on Muscle Strengthening for Healthy Aging” | Danielle E. Levitt, Ph.D., CSCS\*D, Assistant Professor of Exercise Physiology, Director, Metabolic Health & Muscle Physiology Laboratory, Department of Kinesiology & Sport Management, TTU

## **November 18, 2025**

“The Importance of Memory Screening: Observing National Memory Screening Day” | Jonathan

Singer, Ph.D., Assistant Professor, Director GRILL Lab, Director GIA Comprehensive Memory Clinic, Assistant Professor, Department of Pharmacology and Neuroscience, Garrison Institute on Aging, TTUHSC

## **Care Partner Academy**

Under the direction of Barbara Singer, the Care Partner Academy continues the Garrison Institute on Aging’s mission to empower caregivers in the community. As a certified Alzheimer’s Association Educator and Group Support Leader, Barbara draws on her extensive expertise and hands-on experience in the community to identify the topics most needed by caregivers. This ensures that each session addresses real-world challenges faced by those caring for someone with Alzheimer’s disease.

The Care Partner Academy meets monthly on the second Tuesday at noon, providing caregivers with consistent access to education, resources, and support. Topics are carefully selected by Barbara based on her observations and interactions within the community, covering critical areas such as stress management, coping strategies, problem-solving, and connections to local services and support networks.

Through Barbara’s leadership, the Care Partner Academy remains a vital resource, offering practical guidance, encouragement, and hope to caregivers, helping them balance the demands of caregiving while maintaining their own well-being.



## **Presenters and topics**

### **January 8, 2025**

Communicating Effectively | Barbara Singer, GIA Coordinator

### **February 12, 2025**

Responding to Dementia Related Behaviors | Barbara Singer, GIA Coordinator

### **March 12, 2025**

How Nutrition Impacts Strength and Energy: The Superpower of Food | Barbara Singer, GIA Coordinator

### **April 9, 2025**

Exploring Care and Support Service | Barbara Singer, GIA Coordinator

### **May 14, 2025**

The 10 Warning Signs of Alzheimer's | Barbara Singer, GIA Coordinator

### **June 11, 2025**

Engaging in Valued Behaviors: Dementia Care | Jonathan Singer, Ph.D., Assistant Professor, Director GRILL Lab, Director GIA Comprehensive Memory Clinic, Assistant Professor, Department of Pharmacology and Neuroscience, Garrison Institute on Aging, TTUHSC

### **September 9, 2025**

Dementia & Driving: An Important Conversation | Barbara Singer, GIA Coordinator

### **October 14, 2025**

Money Matters: Navigating the Expenses of Dementia Care | Barbara Singer, GIA Coordinator

### **November 11, 2025**

Exploring Dementia Through Film: Remember This? | Special Event | Film by Genevieve Durham Decesaro, M.F.A., Professor of Dance, Vice Provost for Faculty Success, TTU, Rachel Hirshorn-Johnston, M.F.A., Associate Professor, Voice & Speech, School of Theater and Dance, TTU

### **December 9, 2025**

Navigating the Holidays with Dementia: Finding Joy in the Season | Barbara Singer, GIA Coordinator

## ***Bingo Nights in Dawson and Cochran Counties***

In 2025, the Garrison Institute on Aging (GIA) continued its commitment to serving rural communities by hosting Bingo Nights in Dawson and Cochran Counties. These events provided a welcoming and enjoyable setting where community members could gather, connect, and learn about GIA programs that support brain health and healthy aging.

A new feature added this year was on-site memory screenings using Creyos, allowing individuals in rural areas to access cognitive screenings that may otherwise be difficult to obtain. This addition strengthened GIA's efforts to promote early detection and awareness of memory concerns in underserved communities.

During the events, attendees received information about Project FRONTIER, GIA's long-running study focused on understanding and reducing health disparities in rural populations, as well as TX-CARES, a project within the GRILL Lab exploring innovative approaches to improving overall health and well-being.

# Community Outreach

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The Bingo Nights also served as an opportunity to highlight the Brain Bank, which supports research on neurodegenerative diseases, and the Comprehensive Memory Care Clinic, led by Dr. Jonathan Singer, which provides diagnostic evaluations and care services for individuals affected by dementia and memory disorders.

By combining engaging community activities with health education and access to services, the GIA strengthened its connection with rural residents, expanded awareness of its programs, and improved access to critical resources that support brain health and aging.

## **KCBD Health Expo 2025**

On Saturday, May 31, 2025, the Garrison Institute on Aging (GIA) proudly served as the Main Stage Sponsor for the KCBD Health Wise Expo, held at the Lubbock Civic Center. This dynamic community event brought together health organizations, experts, and residents to promote wellness and provide meaningful health resources across West Texas.



As a leader in aging and brain health, the GIA used this opportunity to engage directly with the public and share information about its core programs, including Dementia Live, the Memory Clinic, Project FRONTIER, and the Care Partner Academy. The full GIA team was present, ensuring attendees had access to educational materials, hands-on demonstrations, and supportive guidance.

By sponsoring the event's Main Stage, the GIA reinforced its commitment to improving the well-being of older adults and caregivers through education, research, and community outreach. Participation in this significant expo highlights the Institute's ongoing mission to promote proactive aging, increase brain health awareness, and strengthen connections throughout the region.

## **Lubbock Retired and Senior Volunteer Program (RSVP)**

Lubbock RSVP, housed within the Texas Tech University Health Sciences Center Garrison Institute on Aging (GIA), remains a cornerstone of community engagement by connecting older adults with meaningful and impactful volunteer opportunities throughout the Lubbock area. The program continues to support local organizations and address critical community needs while empowering seniors to remain active, engaged, and purpose driven.

In 2025, Lubbock RSVP operated under the interim leadership of Veronica Lopez, Assistant Director of Outreach and Education for the GIA, ensuring program continuity and sustained community partnerships.



RSVP volunteers contributed thousands of hours of service to local nonprofits, schools, healthcare facilities, and social service organizations. Their efforts included providing companionship to older adults, tutoring and mentoring students, supporting community initiatives, and assisting organizations that serve vulnerable populations.

These volunteer contributions not only strengthened the capacity of community partners but also enhanced the well-being, connection, and sense of purpose among RSVP participants themselves. As part of the GIA's broader mission, Lubbock RSVP continues to promote healthy aging by fostering opportunities for service, social engagement, and lifelong contribution.

Through the dedication of its volunteers and continued alignment with the Garrison Institute on Aging's goals, Lubbock RSVP remains a powerful force for positive change, improving lives across the community while demonstrating the enduring value of service at every stage of life.

### **Recognition Dinner**

Lubbock RSVP honored its dedicated volunteers at the Annual Volunteer Recognition Luncheon on Saturday, March 8, 2025. This year's theme, "Yes We Can," celebrated the spirit of service and collective impact that defines RSVP volunteers.

In addition to recognizing volunteer achievements, the event supported a meaningful community cause by helping stock the Veteran Food Pantry hosted at Hospice of Lubbock. Through the generosity of attendees, two car beds filled with canned goods

were collected for the pantry, providing essential support to local veterans in need.

The luncheon served as both a celebration and a call to continued service, highlighting the generosity, compassion, and community-minded values of RSVP volunteers. By combining recognition with outreach, Lubbock RSVP reinforced its commitment to honoring volunteer service while making a tangible difference in the lives of others.

### **RSVP Statistics**

January 1, 2025 – October 31, 2025 are as follows:

- Total # of Volunteers as of October 31, 2025: **550**
- New Volunteers since January 1 31, 2025: **39**
- Approximate # of community served hours since January 1, 2026: **55,637**
- Obtained Continuation award for Retired and Senior Volunteer Program (V. Lopez).
- Annual Recognition Event held on March 8, 2025 had volunteers present for the Luncheon: **80 in attendance**
- Items made by volunteers since January 1, 2025 – October 31, 2025:
  - Lap quilts: **166**
  - Children's Blankets: **546**
  - Knitted hats and beanies: **2,747**
  - Stockings for U.S. servicemen: **2,422**
  - Bears for Children's Connection, Children's Cancer and Texas Boys Ranch: **633**
  - Adult bibs: **53**
  - Walker pockets: **5**
  - Stuffed animals: **633**

# Community Outreach

## Presidential Lifetime Achievement Awardees

Each year, Lubbock RSVP recognizes exceptional volunteers who have contributed more than 4,000 hours of service to the community through the Presidential Lifetime Achievement Award. In 2025, this distinguished honor was presented during the Volunteer Recognition Luncheon to seven individuals whose long-standing dedication has made a lasting impact across Lubbock.

The 2025 awardees included Marcia Mayfield, for her years of service with University Medical Center and Friends of the Library; Kathy Nale, whose volunteer leadership with Friends of the Library and previous service at the South Plains Food Bank and Word of Hope has strengthened community access to resources; and Kathy Graham, a committed volunteer with Lubbock Meals on Wheels whose service has supported seniors throughout the community.

Also honored were Alyce Horsey, for her continued ministry with Exodus Prison Ministries; Lee Layton, whose service with Lubbock Meals on Wheels and RSVP Comfort Corps has brought comfort to individuals across the region; Susan Ebelthite, for her longstanding volunteer work with Friends of the Library and Lubbock Meals on Wheels; and Dan Taylor, whose dedication to preserving South Plains agricultural history through the FiberMax Center for Discovery has enriched the community's cultural heritage.

Together, these awardees exemplify the spirit of service and lifelong commitment that defines Lubbock RSVP. Their collective contributions reflect the powerful role volunteers play in strengthening communities and improving lives.

## RSVP Advisory Council Members

The RSVP Advisory Council plays a crucial role in the Garrison Annual Report by representing the collective interests of our volunteers, volunteer stations, and the broader community. Comprising dedicated individuals, these Council members offer invaluable advice, support, and advocacy to ensure the effective operation of RSVP of Lubbock County. Their commitment extends to fostering positive changes within the program, generating innovative concepts, and acting as emissaries to the wider Lubbock community.

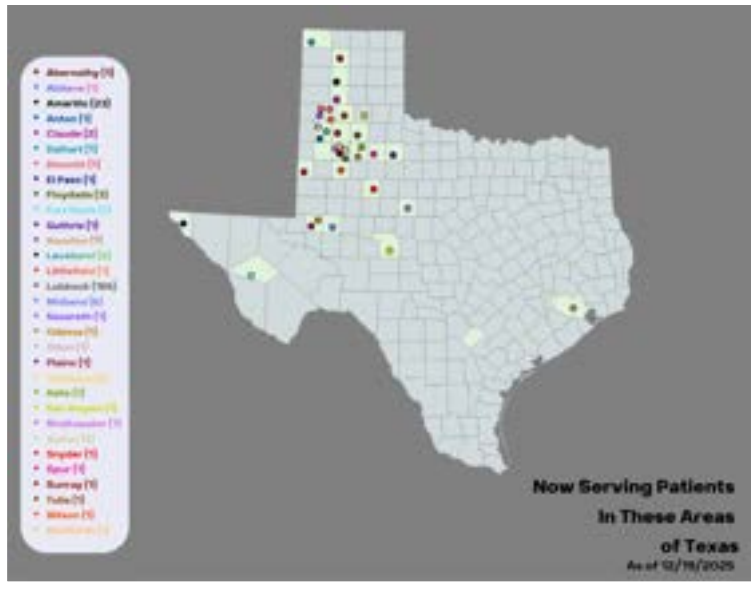
The 2025 Council includes the following leaders:

- Lauri Bandy, Trust Point Rehabilitation Hospital of Lubbock
- Lesli Griffin, High Plains Senior Care
- Kristie Jordan, Caprock Home Health Service
- Christy Martinez-Garcia, Publisher-Owner Latino Lubbock Magazine/District 1 Councilwoman
- Stacie Perez, HHSC Foster Grandparents
- Kami Shore, Carillon Senior Living
- Shawn Ward, Buddy Holly Hall of Performing Arts and Sciences





## Clinical Programs





In 2025, the Garrison Institute on Aging (GIA) continued to expand its community-centered clinical and mental health services under the direction of Executive Director Dr. Volker Neugebauer and GIA faculty Dr. Jonathan Singer. Through programs such as Creative Minds, TX CARES, TX CARES–Telehealth, and the Adapted Dialectical Behavioral Therapy (DBT) Skills Program, the GIA provides free mental health services designed to support older adults, caregivers, and underserved populations. These initiatives reflect the Institute’s commitment to improving emotional well-being, reducing health disparities, and promoting healthy aging across West Texas.

Working collaboratively with neuropsychologist Dr. Singer, geriatric psychiatrist Dr. Gayle Ayers, and neurologist Dr. John Bertelson, the GIA established the Comprehensive Memory Clinic, bringing vital dementia care services together under one roof. The clinic provides comprehensive assessments, education, care planning, treatment options, and caregiver support for individuals living with dementia and their families.

### **Memory Clinic**

The Garrison Institute on Aging reached an important milestone with the opening of the Comprehensive Memory Clinic in October 2024, a long-envisioned project designed to address the critical shortage of dementia care resources in West Texas. Drs. Jonathan Singer and Volker Neugebauer championed the need for accessible, affordable, and comprehensive dementia services, recognizing that Texas had only three comparable clinics, all located in major metropolitan areas. Since its

launch, the Memory Clinic has delivered more than 500 hours of specialized dementia care to over 50 patients across 15 Texas counties, as well as individuals traveling from New Mexico. This reach underscores both the urgent need and the regional impact of the clinic’s services, which include neurocognitive evaluations, comprehensive assessments, individualized care plans, medication management, caregiver education, and ongoing support, allowing families to receive high-quality dementia care close to home.

To meet rising demand, the clinic will expand its multidisciplinary team in 2025 with the addition of a Physician Assistant, a Speech Pathologist, a Licensed Clinical Social Worker, and a Patient Service Specialist, strengthening the clinic’s capacity to provide holistic, patient-centered care to a growing number of individuals and families. Beginning in July 2025, the clinic will also serve as the only CMS GUIDE program site west of Dallas. Through this Medicare-supported initiative, the clinic will offer free, coordinated dementia care, caregiver education and support, respite services, and comprehensive care management designed to improve quality of life and help individuals remain safely at home, positioning the GIA as a leader in innovative dementia care delivery.

In addition, the Garrison Dementia Evaluation Program (GDEP), supported by a dedicated grant, has significantly expanded access to neurocognitive testing a service that traditionally costs more than \$1,500 and often requires year-long wait times. In 2024, GDEP reduced these barriers by providing more than 20 free neurocognitive assessments and over 40 additional low- or no-cost evaluations, all completed within three



months of referral. By improving affordability and reducing wait times, GDEP supports earlier diagnosis, timely interventions, and improved access to new treatment options.

Together, the rapid growth and success of the Comprehensive Memory Clinic and its associated programs mark a transformative advancement in dementia care for West Texas. With continued expansion of clinical services, the launch of the CMS GUIDE program, and the impact of GDEP, the GIA is establishing a new standard for accessible, patient-centered dementia services and strengthening its commitment to improving the lives of individuals and families affected by memory disorders.

## Memory Clinic Celebration

In early spring 2025, the Garrison Institute on Aging proudly unveiled the newly renovated Memory Clinic, a much needed and transformative update designed to enhance the patient experience and further support high-quality clinical care. The renovation modernized the clinic's environment, improved workflow and accessibility, and created a welcoming space that reflects the expanding needs of the communities served by the Institute.

To commemorate this milestone, a Memory Clinic Celebration was held on April 8, 2025, bringing together leadership, providers, collaborators, and community partners for this momentous occasion. The event opened with welcoming remarks from Volker Neugebauer, Ph.D., Executive Director of the Garrison Institute on Aging, who highlighted the importance of the renovation in advancing clinical innovation,

research integration, and patient-centered care.

Following the welcome, Dr. Neugebauer introduced Jonathan Singer, Ph.D., Director of the Memory Clinic, whose leadership and clinical expertise have been instrumental in shaping the clinic's growth and vision. His remarks emphasized the continued commitment to providing comprehensive evaluations, timely diagnoses, and supportive resources for individuals and families affected by memory concerns and neurodegenerative conditions.

A special moment of celebration came with congratulatory remarks by TTUHSC President Dr. Lori Rice-Spearman, who commended the Institute's dedication to improving cognitive health services across West Texas. Her message recognized the Memory Clinic as a critical gateway for early intervention, community support, and interdisciplinary collaboration.

The event was attended by numerous providers, faculty, staff, and collaborators from across the university and partner organizations, all gathered to celebrate the clinic's renewed space and expanded potential. The renovation marks a significant step forward for the GIA, reinforcing its mission to deliver exceptional care, advance research, and assure that individuals facing memory-related challenges receive the support and expertise they deserve.



# Awards and Recognition



## Awards

**Singer, J.** TTU College of Arts & Sciences Excellence in Research Award, 2025

**Singer, J.** TTU Academy of Behavioral Medicine Research's 2025 Early-Stage Investigator (ESI) Program Fellow.

**Gonzales, R.** TTUHSC President's Award of Excellence, 2025.

**Jump, A.** TTUHSC Distinguished Staff Award, 2025.

**Singer, B.** TTUHSC Distinguished Staff Award, 2025.

**Neugebauer, V.** NCCIH/NIH Annual Director's Merit Award: Intramural Scientific Achievement, 2025.



## Invited Talks

**Neugebauer, V.** (2025, November) "Neuroplasticity and Brain Health - Bridging the gap between basic science and clinical application through research, education and community engagement". UTMB, Galveston, TX.

**Neugebauer, V.** (2025, October) "Amygdala neuroplasticity in the transition to chronic pain – Role of neuroimmune signaling". Gulf Coast Consortia Pain Workshop, Pain Resolution and Chronification, Rice University Houston, TX (Zoom seminar).

## Recognition

**Neugebauer, V.** (2025) "Visionary Publication Feature – 'Alcohol withdrawal and pain: Peripheral mechanisms join central circuits', Neuron, Volker Neugebauer, M.D., Ph.D." In: LinkedIn - TTUHSC Research and Innovation's Post, by Maria Garcia, September 26, 2025; [https://www.linkedin.com/posts/ttuhsc-research-and-innovation\\_congratulations-to-volker-neugebauer-md-activity-7377394058811555840-Db8w](https://www.linkedin.com/posts/ttuhsc-research-and-innovation_congratulations-to-volker-neugebauer-md-activity-7377394058811555840-Db8w)

**Neugebauer, V.** (2025) "Bridging Mind and Medicine" In: IMPACT 2025 - The Chancellor's Council Magazine, by Nate Ziegner, July 25, 2025; <https://new.express.adobe.com/webpage/ZJxlYRhXGEsOa>



# News Releases

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## ***Outreach News Releases***

**TRENDS AND FRIENDS:** “The 6th Annual Alzheimer’s Awareness Symposium will feature guest speakers on “The Alzheimer’s Journey: Diagnosis to Care”. In: Everything Lubbock, Brandi Duggers, October 29, 2025; <https://www.everythinglubbock.com/news/trends-and-friends/the-6th-annual-alzheimers-awareness-symposium-will-feature-guest-speakers-on-the-alzheimers-journey-diagnosis-to-care/>

**KAMC & KLBK:** “TTUHSC Garrison Institute on Aging hosts Alzheimer’s Awareness Symposium”. In: Everything Lubbock, Zenaida Gonzales, October 15, 2025; <https://www.everythinglubbock.com/news/local-news/ttuhsc-institute-on-aging-hosts-alzheimer-awareness-symposium/>

**NEWS CHANNEL 11:** “TTUHSC Garrison Institute on Aging set to host 6th Annual Alzheimer’s Awareness Symposium”. In: KCBD, TTUHSC Garrison Institute on Aging, October 22, 2025; <https://www.kcbd.com/2025/10/23/ttuhsc-garrison-institute-aging-set-host-6th-annual-alzheimers-awareness-symposium/>

**FOX 34:** “TTUHSC Garrison Institute on Aging set to host 6th Annual Alzheimer’s Awareness Symposium”. In: Fox 34, TTUHSC Garrison Institute on Aging, October 22, 2025; <https://www.fox34.com/2025/10/23/ttuhsc-garrison-institute-aging-set-host-6th-annual-alzheimers-awareness-symposium/>

**KAMC & KLBK:** “Lubbock coffee shop partners with local institute to support Alzheimer’s research”. In: Channel 28, Christianna Barbosa, July 7, 2025;

<https://www.everythinglubbock.com/news/local-news/lubbock-coffee-shop-partners-with-local-institute-to-support-alzheimers-research/>

## ***Dr. Singer News Releases***

**TTUHSC Daily Dose** (October 2025). Summer Program Introduces Medical Students to the Research Laboratory. <https://dailydose.ttuhsc.edu/2025/october/medical-student-summer-research.aspx>

**U.S. News and World Report** (September 2025). How to Manage Your Emotions After Moving a Loved One Into Senior Living. <https://health.usnews.com/best-senior-living/articles/how-to-manage-your-emotions-after-moving-a-loved-one-into-senior-living>

**ODESSA AMERICAN** (August 2025). TTUHSC receives DSHS pilot grant to provide Alzheimer’s disease education for health care professionals in rural areas. <https://www.oaoa.com/local-news/education/ttuhsc-receives-dshs-pilot-grant-to-provide-alzheimers-disease-education-for-health-care-professionals-in-rural-areas/>

**REAL TALK WITH TERRI PODCAST-KLBK** (August 2025). Aging: When to Get Screened? <https://www.everythinglubbock.com/video/real-talk-with-terri-ep-2/11020112/>

**TTUHSC PULSE** (July 2025). New Resources for Dementia Patient, Their Caregivers. <https://pulse.ttuhsc.edu/issue/summer-2025/new-resources-for-dementia-patients-their-caregivers/>



**Texas Tech receives grant from Alzheimer's Association to expand respite care services**

<https://www.everythinglubbock.com/news/local-news/texas-tech-receives-grant-from-alzheimers-association-to-expand-respite-care-services/>  
<https://www.ttu.edu/now/posts/2025/07/texas-tech-receives-grant-from-alzheimer-s-association.php>  
<https://www.msn.com/en-us/health/medical/texas-tech-receives-grant-from-alzheimer-s-association-to-expand-respite-care-services/ar-AA1J1dUY>

**CMS GUIDE Program at TTUHSC (July 2025)**

<https://www.lubbockonline.com/story/news/healthcare/2025/07/03/texas-tech-hsc-program-aims-to-advance-dementia-care-across-west-texas/84460468007/>  
<https://www.myhighplains.com/news/local-news/texas-tech-university-health-sciences-center-program-expands-dementia-care-in-amarillo-lubbock-areas/>  
<https://pix11.com/business/press-releases/ein-presswire/828187317/ttuhsc-launches-cms-guide-model-to-advance-dementia-care-across-west-texas-in-collaboration-with-wovenly/>  
<https://www.einpresswire.com/article/828187317/ttuhsc-launches-cms-guide-model-to-advance-dementia-care-across-west-texas-in-collaboration-with-wovenly>  
<https://www.wane.com/business/press-releases/ein-presswire/828187317/ttuhsc-launches-cms-guide-model-to-advance-dementia-care-across-west-texas-in-collaboration-with-wovenly/>  
<https://www.mywabashvalley.com/business/press-releases/ein-presswire/828187317/ttuhsc-launches-cms-guide-model-to-advance-dementia-care-across-west-texas-in-collaboration-with-wovenly/>  
[https://fox40.com/business/press-releases/ein-](https://fox40.com/business/press-releases/ein-presswire/828187317/ttuhsc-launches-cms-guide-model-to-advance-dementia-care-across-west-texas-in-collaboration-with-wovenly/)

[presswire/828187317/ttuhsc-launches-cms-guide-model-to-advance-dementia-care-across-west-texas-in-collaboration-with-wovenly/](https://www.einpresswire.com/article/828187317/ttuhsc-launches-cms-guide-model-to-advance-dementia-care-across-west-texas-in-collaboration-with-wovenly/)  
<https://www.newschannel10.com/2025/06/09/free-dementia-symposium-thursday-amarillo/>  
<https://www.cbs42.com/business/press-releases/ein-presswire/828187317/ttuhsc-launches-cms-guide-model-to-advance-dementia-care-across-west-texas-in-collaboration-with-wovenly/>  
<https://www.8newsnow.com/business/press-releases/ein-presswire/828187317/ttuhsc-launches-cms-guide-model-to-advance-dementia-care-across-west-texas-in-collaboration-with-wovenly/>

**KCBD Nightly News-DPRIT (March 2025).**

Reporting on SB 5, DPRIT.

**News Medical Life Sciences (February 2025).**

Ethnicity and mental health impact brain health in rural older adults. <https://www.news-medical.net/news/20250206/Ethnicity-and-mental-health-impact-brain-health-in-rural-older-adults.aspx>

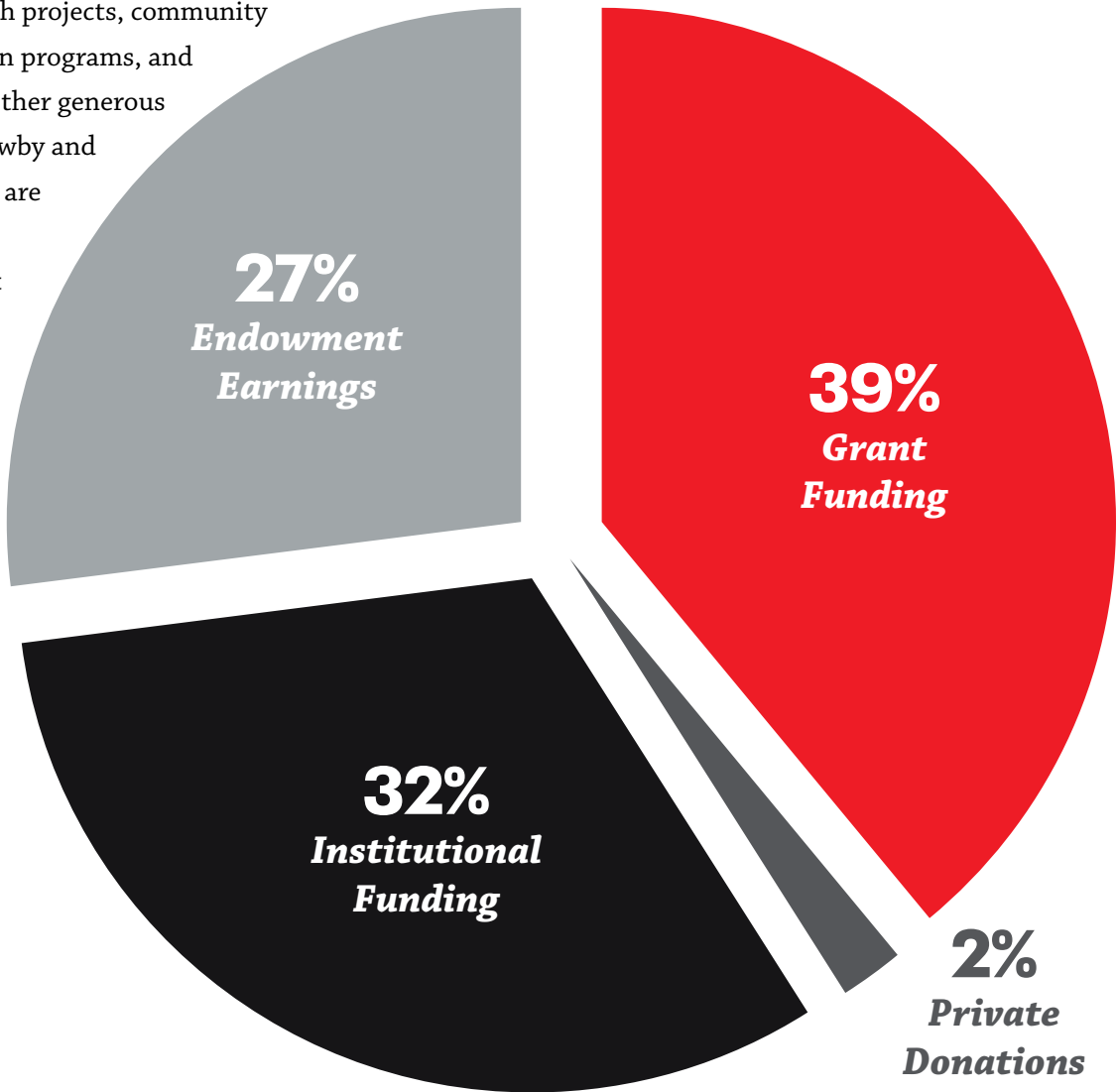
**Statline TV (January 2025).** TTUHSC's New Memory Clinic.





**T**he Garrison Institute on Aging (GIA) is funded by a combination of competitive grants, institutional funding, and endowment earning (Fig. 1). The GIA is committed to securing external funding through grant applications for collaborative innovative projects. A number of grants have been obtained by GIA faculty for preclinical and clinical studies. Through a generous endowment provided by the Garrison family, the GIA receives a secure flow of income from the earnings on the endowment, which is greatly appreciated and provides valuable funding for a variety of research projects, community outreach and education programs, and the GIA Brain Bank. Other generous donors include the Newby and Pickering families. We are also very grateful for the continued support from the Texas Tech University Health Sciences Center administration and leadership, particularly the Office of Research.

**Funding sources for GIA activities  
(FY2024)**







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