

2023

NEUROLOGY ANNUAL REPORT



UT Health
San Antonio

MESSAGE FROM THE CHAIR



CELEBRATING 2023 AND BEYOND!

With the severity of the COVID-19 pandemic even further in the rearview mirror, the past year has been a roller coaster and an exhilarating ride for the UT Health San Antonio Department of Neurology. The story of our department's amazing success reflects a commitment to embracing continued growth and change. We wanted to recognize and celebrate our significant accomplishments by publishing our first Annual Report.

As you will see in this report, in 2023, our department saw significant overall growth in the number of faculty. We are pleased to have welcomed the following additions to the faculty:

- Matthew Wicklund, MD, FAAN, was recruited from the University of Colorado to join our Neuromuscular Division and serve as the Vice Chair for Research.
- Missak Tchoulhakian, DO, a former resident, became our second neurohospitalist at University Hospital.
- Sara Doyle, MD, recently completed fellowship training in preventive medicine at the University of Wisconsin and joined our Comprehensive Neurology team.
- Lauren Skalomenos, MD, epilepsy fellow, joined our epilepsy division and opened the Headache Clinic at UT Health Hill Country.
- Cassie Chan, MD, a former resident,

joined our neuromuscular division after completing fellowship training in neuromuscular medicine at the Penn State College of Medicine.

- Robin Hilsabeck, PhD, ABPP is our new Neuropsychology division chief
- Gabrielle Hromas, PhD, the first graduate of our Neuropsychology fellowship program and Stephanie Santiago-Mejias, PhD joined the Neuropsychology division.

THE RECRUITMENT CONTINUES!

Our clinical mission continues to expand with a record number of outpatient visits in 2023 at 28,341 and 104,079 wRVUs. Our patient satisfaction score for "Likelihood to Recommend Care Provider" was 96.01. Several faculty members received honors and awards for their work, including:

- Ratna Bhavaraju-Sanka, MD, Vice Chair for Clinical Services, was recognized as a Joe R. and Teresa Lozano Long School of Medicine Master Clinician.
- Five of our faculty made the list of Texas Monthly magazine Super Docs: Ratna Bhavaraju-Sanka, MD, Lee Birnbaum, MD, Deborah Carver, MD, Rebecca Romero, MD and Carlayne Jackson, MD, FAAN. Sarah Horn, MD, was named as a Rising Star by Texas Monthly magazine.
- Andres Saenz, MD, was chosen as an Academy of Educational Scholars Star Educator by the Long School of Medicine.

It has also been a strong year for research and publications, and we have welcomed new team members to enhance our infrastructure. Our National Institutes of Health (NIH) Blue Ridge Ranking was #38, with \$7,693,321 in NIH funding and \$10,799,240 in extramural funding. We are currently involved in 109 clinical trials.

We had a record number of Long School of Medicine medical students choose a residency in neurology - 17 for adult neurology and three for child neurology. All of our residents who took the Board this year passed. We have added two new fellowships this year: neuroimmunology and interventional stroke, in addition to the existing fellowship programs of behavioral neurology, clinical neurophysiology, epilepsy, movement disorders, neuropsychology and vascular neurology. Our residency program now offers a clinical educator, research, neuro-hospitalist and procedure track and has grown to 30 residents.

As the current President of the American Academy of Neurology (AAN), I am incredibly proud of our department's involvement in the organization. Ratna Bhavaraju-Sanka, MD, became a Fellow of the AAN this year and Michael Palm, MD, was selected to serve as a mentor in the Directorship Mentorship Leadership program. Sujani Bandela, MD, and Alicia Parker, MD, were accepted to the AAN Neurology on the Hill and the Palatucci Advocacy Leadership Forum. Ratna Bhavaraju-Sanka, MD, graduated from the AAN Transforming Leaders program and Sara Horn, MD, recently began the AAN Emerging Leaders program.

Our faculty and staff have also been recognized for their leadership skills. Charlotte Rhodes was chosen for the Leadership Excellence for Academic Professionals (LEAP) program at UT

Health San Antonio. Jeremy Davis, PsyD, ABPP-CN, was accepted into the University of Texas at San Antonio Executive MBA program. Sujani Bandela, MD, and Alicia Parker, MD, completed the Executive Development Program for Emerging Health Leaders and Tania Reyna, MD, MSCS, FAAN, was selected to participate next year.

Of course, one cannot honor and celebrate the past without embracing the future as we work hard to plan for the UT Health San Antonio Multispecialty and Research Hospital, which opens in December 2024, and our new Center for Brain Health, scheduled to open in the Spring of 2025. This is just the beginning as we double down and prioritize making UT Health San Antonio a first-class organization to meet the future demands of the ever-evolving world of neurologic health care and improve brain health for everyone.

As we look back in this report on our many successes in 2023, let us simultaneously look forward with great excitement to how our ongoing efforts will continue to position us to better support our tradition of excellence in neurological education, research and service to patients in the South Texas community.

Carlayne E. Jackson, MD, FAAN
Professor and Chair



**RATNA BHAVARAJU-SANKA, MD
VICE CHAIR OF CLINICAL SERVICES**

UT Health Neurology operations team delivers high quality, compassionate, culturally proficient, team-based, and personalized care to enhance every patient's quality of life to South Texas residents needing neurological care in both hospital and outpatient settings in a team-based approach with Physicians, Advanced Practice Providers, Physical/Occupational/Speech Therapists, Dietician, Social worker, Genetic Counselor, Nurses, Case Managers and Medical Assistants. We work closely with our Research team to offer not only state of the art treatments but access to the latest clinical trials. We also work closely with our education division to provide neurology resident and fellow education. In addition, the faculty provides education to Internal Medicine faculty and residents in the hospital and primary care physicians on management of common neurological disorders and transitions of care.

Faculty have been selected for participation in programs offered by the American Academy of Neurology (AAN) such as the Transforming Leaders Program, Emerging Leaders Program and Palatucci Advocacy Leadership Forum. As a department, we realize the importance of advocacy to improve Brain Health. Our faculty have participated in programs including the AAN Neurology on the Hill and First Tuesday in Austin to meet our Senators and representatives to bring to light the issues patients and providers face regularly and find innovative solutions.

This year has been exciting as we successfully incorporated a Genetic Counselor and Social Worker into our care team. We have added more faculty with expertise in Epilepsy, General Neurology, Neuromuscular Disorders, Neuropsychology and Preventive Neurology. In the hospital, we now have two neurohospitalists who provide 24/7 care to inpatients.

This year we also welcomed Dr Tania Reyna, MD, as our MARC Neurology Medical Director. Under her guidance, we added new Advanced Practice Providers and developed an onboarding program to train them to become an integral part of our care team model. We continue to work very closely with our Information Technology team to enhance the efficiency of the EMR to improve patient care without increasing the provider burden. As part of the Clinical Safety and Effectiveness Course, Dr. Reyna and the team developed a new in-basket message management system to improve response turnaround time. Our current project is looking at improving relationships with our primary care partners to reduce fragmentation of care and improve access.

In 2023, we have touched many lives with more than 28,000 completed outpatient visits and over 13,000 inpatient encounters. We at UT Health Neurology are here to provide expert and compassionate care for patients with neurological conditions in South Texas and beyond.



**MATTHEW P. WICKLUND, MD
VICE CHAIR OF RESEARCH**

The research mission of the Department of Neurology at UT Health San Antonio is strong, broad and still growing. The department has a robust basic science and translational focus through the Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases (Biggs Institute), a burgeoning number of clinical and outcomes trials, and disease registries throughout the rest of the department. The department has 36 grants, 109 trials, 561 research subjects and more than 30 faculty members involved in research programs.

The Biggs Institute carries the designation of a National Institute on Aging (NIA)-designated Alzheimer's Disease Research Center, the only one in South Texas, and performs research into Alzheimer's disease and different types of dementia and degenerative disorders. Their total budget in 2023 was \$7.9M, with future grants increasing this funding to more than \$17M in 2024. The Biggs Institute was awarded a U19 collaborative multicomponent award and a P30 center core grant. Their staff includes more than 50 personnel working in 22 grant-funded areas of study, including basic science labs, translational studies, biobanks, seven Tesla MRI studies, and clinical interventions with biologic agents to alter the progression of the disease. The Biggs Institute investigators published 144 papers over the past two years.

The clinical trials branch of the department had more than 50 clinical trials spread

across the subspecialties of neurology, including epilepsy, Parkinson's Disease, Huntington's Disease, multiple sclerosis, amyotrophic lateral sclerosis (ALS), neuropathies, muscular dystrophies and stroke. The research team is comprised of a director of research operations who oversees a research staff of 14 coordinators, nurses and regulatory affairs specialists.

The neurology department has several centers of excellence. There is a Level IV National Association of Epilepsy Center (NAEC)- accredited epilepsy center, along with centers of excellence in Parkinson's disease, Huntington's Disease, ALS, muscular dystrophies, multiple sclerosis and stroke (the only Joint Commission-accredited Comprehensive Stroke Center in South Texas). Additionally, the department contributes as a member site in numerous research consortia including the Northeast ALS Consortium (NEALS), Healey Platform Trial in ALS, Facioscapulohumeral Muscular Dystrophy Clinical Trials Network (FSHD-CTR), Myotonic Dystrophy Clinical Research Network (DMCRN), Genetic Resolution and Assessments Solving Phenotypes in Limb Girdle Muscular Dystrophy (GRASP-LGMD), Texas Lone Star Stroke Consortium and NIH StrokeNet.

The research program at UT Health San Antonio continues an upward trajectory with further expansion planned for the years to come.



**MICHAEL PALM, MD
VICE CHAIR OF EDUCATION**

This year was very successful for the educational mission. We met or exceeded our department's metrics in several areas, most notably in the number of UT Health San Antonio Long School of Medicine students who chose to enter neurology, and in our continued success in the match. In addition, we continued to meet our student satisfaction metrics for both the Mind, Brain, and Behavior course and for our clerkship.

Medical Students:

Dr. Okeanis Vaou took on the role of Co-Director of the MS2 Mind, Brain, and Behavior course and immediately made an impact by improving the curriculum, including a new interactive lecture on the effects of climate change on neurological disease. Our MS3 clerkship, run by Dr. Deborah Carver, continues to be highly rated, especially with the addition of an exam review lecture provided by Dr. Matthew Roberts (PGY-4) as part of his Clinician Educator Track Research Project.

This year we saw a tremendous increase in the number of medical students interested in neurology 4th year rotations, with 21 students enrolling in neurology electives. Of these, 17 students applied for adult neurology residency positions, and 3 applied for child neurology residency positions. Dr. Paola Martinez, Associate Clerkship Director, worked tirelessly to create additional elective rotations with neurology faculty for these students. She also restarted the Sherman Educational Elective and worked with three students to obtain Distinctions in Medical Education. In addition, she started a medical student – faculty mentoring program to help guide MS4 students through the Match process.

Drs. Martinez and Vaou both began terms on the medical school's Curriculum Committee and Dr. Michael Palm completed his term as Chair of that committee and has moved to Past-Chair.

Residents:

This year, the residency program recruited another excellent class into the program, including three students from UT Health San Antonio. We expanded the PGY-1 and PGY-2 classes to 8 residents, bringing our total resident complement to 30.

We continued our successful Clinician Educator Track and also added additional options for interested residents, including a Neuro-hospitalist track and a Procedure track. We are also working to develop a Research Track. We received a two-year grant from the American Board of Psychiatry and Neurology to establish and study the Neuro-hospitalist track.

This year, our residency graduates pursued the following fellowships/careers:

- Muhammed Abdullah - Behavioral Neurology fellowship at UT Health San Antonio
- Ali Kaabi - Vascular Neurology fellowship as Ochsner Health Clinic, New Orleans
- Kunal Kanakia - Neurocritical Care fellowship at Baylor College of Medicine
- Anqi Luo - Vascular/CNS Endovascular fellowship at UT Health San Antonio
- Etsub Samuel - Clinical Neurophysiology fellowship at Emory University
- Asra Tanwir - Epilepsy/Clinical Neurophysiology fellowship at Mayo Clinic in Rochester
- Missak Tchoulhakian joined Dr. Andres Saenz as our second neurohospitalist.

Fellowships:

This year, we welcomed our first Behavioral Neurology Fellow (in collaboration with the Biggs Institute), overseen by Dr. Arash Salardini. We also had our first fellow start in our new Neuroimmunology fellowship, which is overseen by Dr. Tania Reyna. In addition, Dr. Gabrielle Hromas completed training as the first graduate of our Neuropsychology fellowship and joined our faculty.

RESIDENCY DISCIPLINES

- 10 BEHAVIORAL AND COGNITIVE NEUROLOGY**
- 20 COMPREHENSIVE NEUROLOGY**
- 22 EPILEPSY**
- 24 MOVEMENT DISORDERS**
- 27 NEUROIMMUNOLOGY**
- 29 NEUROMUSCULAR MEDICINE**
- 33 NEUROPSYCHOLOGY**
- 36 VASCULAR NEUROLOGY**



BEHAVIORAL AND COGNITIVE NEUROLOGY

OVERVIEW:

The Division of Behavioral and Cognitive Neurology is a newly established, innovative, well-funded, creative and future-oriented division offering cutting-edge research and training for clinical and research leaders in Alzheimer's disease and related dementias. As part of the Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases, we are one of the 33 NIH-designated Alzheimer's Disease Research Centers in the United States and the only one in Texas. Our facilities include specialized clinics that provide the most up-to-date treatments, advanced diagnostic modalities and technologies, an incredibly diverse and friendly patient population, a very diverse case mix and a leading research program with expertise in epidemiology, genetics, imaging, biomarker biology and a growing interest in the neuroimmunology of neurodegenerative diseases. We work closely with the prestigious Framingham

Heart Study and the Barshop Institute for Aging Research.

CLINICAL ACTIVITIES:

Patient care is provided at the Medical Arts & Research Center, where we operate outpatient clinics, as well as in Laredo as part of outreach efforts. We offer specialized services for diagnosing, treating and managing patients with primary cognitive disorders, other neurological conditions with cognitive symptoms and syndromes at the interface between neurology and psychiatry. The clinic is a leading provider of cognitive and behavioral neurology care in Texas, focusing on South Texas, a region with a diverse population of over five million people.

There are several specialized neuro-cognitive clinics. The Behavioral Neurology and Memory Clinic is suitable for patients with uncertain and complex diagnoses or those who are

candidates for medications to slow the progression of Alzheimer's disease. Other specialized clinics include the Young-Onset Dementia Clinic, the Frontotemporal Dementia Clinic, the Chronic Traumatic Encephalopathy Clinic, the Healthy Mind Clinic, the Movement and Cognitive Disorders Clinic, the Spanish Language Clinic, the Post-COVID Clinic and the Behavioral Management Clinic. Most sessions are 90-minute consultations. A neurocognitive visit follows neuropsychological testing in about a third of new patient visits. Such visits are termed Management and Intervention in Neurodegenerative Disease (MIND) Clinics. MIND clinics are intended for patients with the most challenging diagnoses.

For patients with more complex care and social issues, we collaborate closely with geriatricians and palliative care specialists. Our clinics also have genetic counseling, social work support, caregiver programs and several patient support groups.

EDUCATIONAL ACTIVITIES:

The Division of Cognitive and Behavioral Neurology participates

in the teaching of medical students and residents. In addition, we offer a one-year UCNS-accredited fellowship program in Behavioral Neurology and Neuropsychiatry, which can be extended for an additional year of research. The fellowship provides firsthand experience in various fields, including Behavioral Neurology, Geriatric Psychiatry, Movement Disorders, Geriatrics, Psychiatry and elective clinics.

RESEARCH ACTIVITIES:

Our researchers are committed to discovering future treatments through cutting-edge research and clinical trials. As an Alzheimer's Disease Research Center designated by the National Institute on Aging (NIA), we work with other designated centers nationwide. These collaborations have led to numerous research discoveries and resources for tackling Alzheimer's and other forms of dementia. We collaborate with prominent institutions, patients and their families to discover improved methods for diagnosing, treating and preventing dementia. A selection of studies we performed and/or completed in 2023 is included in the following table:

STUDY NAME	DESCRIPTION	STUDY NAME	DESCRIPTION
Diverse VCID	Diverse Vascular Contributions to Cognitive Impairment and Dementia (VCID)	REACH	Phase II trial to assess rapamycin in MCI/Mild AD
Covid 7T	Understand COVID's long term impact on the brain - an imaging study	Cognito	Electrical Stimulation in Mild/Moderate AD (cap device)
Long covid Study	How COVID-19 affects the nervous system in patients with different genotypes as a way to help predict and possibly prevent long-term neurological problems in COVID-19 patients	AXSOME	Assess AXS-05 in subjects with AD and Agitation
COMPADRE	Understand how real-world behaviors shape risk of cognitive decline in Hispanics	S-Cit AD	Assess escitalopram for agitation in AD
MarkVCID	Identify blood and imaging markers of vascular disease in the brain	Camelot	Comparing antipsychotic medications in LBD Over Time
NACC	National repository for ADRDs	TRC-DS	Trial ready cohort for Down's Syndrome

ALL FTD	Evaluate FTLN patients and their family members.	ABATE	Amyloid vaccine study
New IDEAS	Medicare study to assess PET scans in AD.	Preventable	Atorvastatin in patients without CVD or dementia
Brain Health	Identify physical functioning and sensory changes associated with cognition	Care Ecosystem	Addressing the unmet needs of persons with dementia and their caregivers
Local Biobank	Biorepository for future research: CSF, Blood, and Saliva	Tele-Stella	Using technology to support care partners for persons with Alzheimer's disease
CADASIL	Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy	Evoke	A Research Study Investigating Semaglutide in People with Early Alzheimer's Disease
Brain Bank	Biorepository for future research	Evoke+	A Research Study Investigating Semaglutide in People with Early Mixed Dementia
AHEAD	Assess lecanamab in pre-clinical AD - asymptomatic	Trailblazer	A Study of LY3002813 in Participants with Early Symptomatic Alzheimer's Disease
MAP	Metformin in Alzheimer's dementia prevention (MAP)	STOMP-AD	Senolytic Therapy to Modulate the Progression of Alzheimer's Disease (SToMP-AD) Study
Envision	Study to verify benefit Aducanumab in MCI/Mild AD	NIC MIND	Memory Improvement Through Nicotine Dosing (MIND) Study
Viva Mind	Evaluate varoglutamstat in MCI/Mild AD	TARCC	Texas Alzheimer's Research and Care Consortium
Celia	Assess BIIB080 in changing CDR and Safety and Tolerability in MCI/Mild AD	TARCC Microbiome	TARCC Microbiome Study
APEX	Longitudinal study of patients who failed screening for AHEAD	San Antonio Heart and Mind Study	A longitudinal cohort of local subjects with vascular and cognitive data.

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- 61. Zwir I, Arnedo J, Mesa A, Del Val C, de Erausquin GA, Cloninger CR. Temperament & Character account for brain functional connectivity at rest: A diathesis-stress model of functional dysregulation in psychosis. *Mol Psychiatry* 2023;28:2238-2253.
- 62. Gonzales MM, Wang D, Pollet E, et al. Pilot Study Results Assessing the Accuracy of a Ballistic Sleep Monitor Relative to Polysomnography in Parkinson's Disease. *J Parkinsons Dis* 2023;13:1073-1076.
- 63. Mourtzi N, Charisis S, Tsapanou A,

et al. Genetic propensity for cerebral amyloidosis and risk of mild cognitive impairment and Alzheimer's disease within a cognitive reserve framework. *Alzheimers Dement* 2023;19:3794-3805.

- 64. Liu X, Barisano G, Shao X, et al. Cross-Vendor Test-Retest Validation of Diffusion Tensor Image Analysis along the Perivascular Space (DTI-ALPS) for Evaluating Glymphatic System Function. *Aging Dis* 2023.



HONORS AND AWARDS:

Alicia Parker, MD, selected for the Executive Development Program for Emerging Health Leaders



DIVISION ACCOMPLISHMENTS/HIGHLIGHTS:

Research: Our division has received significant funding from philanthropic sources and organizations, including the Alzheimer's Association's Part the Cloud and the University of Texas Board of Regents' Science and Technology Acquisition and Retention grants. Despite its small size, the division secured \$15 million in NIH funding, helping make the neurology department rank 20th in the country in terms of NIH funding.

Education: In 2023 we graduated our first ever Behavioral Neurology and Neuropsychiatry Fellow. Camille Merhi, MD, is now the director of neuromodulation, Department of Psychiatry, Texas A&M.

Clinical: In 2023, we became one of the first centers in the world to offer passive immunization with lecanemab to slow the progression of Alzheimer's disease.



FACULTY LISTING:

Arash Salardini, MD
Associate Professor
Department of Neurology
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases
Chief, Division of Behavioral and Cognitive Neurology
Gabriel A. de Erausquin, MD, PhD, MSc

Professor/Clinical
Departments of Neurology and Radiology
Zachry Foundation Distinguished Professor of Alzheimer's Clinical Care and Research
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Sara Doyle, MD
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Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Rebecca Hoyumpa, DNP, FNP-BC
Specialist
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Alicia S. Parker, MD
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Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Sarah Savoia, PA-C
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Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Sudha Seshadri, MD, DM
Professor
Departments of Neurology, Psychiatry, and Cellular & Integrative Physiology
Robert R. Barker Distinguished University Professor
Director, Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Jeremy Tanner, MD
Assistant Professor
Department of Neurology
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Antonio Lucio Teixeira, MD, PhD, MSc, LD
Professor
Departments of Neurology and Psychiatry
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases





COMPREHENSIVE NEUROLOGY

OVERVIEW:

The Division of Comprehensive Neurology comprises an integrated care team of neurologists and advanced practice providers dedicated to high-quality patient-centered care to patients in both the inpatient and outpatient settings. Our team of neurohospitalists provides outpatient care to patients with various neurological disorders at the Medical Arts & Research Center, UT Health Hill Country Clinic, and University Hospital. We also provide inpatient care at University Hospital as part of the ward and consult teams.

Faculty are actively involved in educating the next generation of neurologists by teaching medical students and residents.

CLINICAL ACTIVITIES:

Working with a care team of physicians and advanced practice providers, the neurohospitalists provide 24/7 care to inpatients admitted to University Hospital

with primary neurological diagnoses. In addition, the team provides consultation throughout the hospital to other specialties.

Most patients seeking an initial evaluation by a neurologist are seen by one of our comprehensive neurology providers. Our outpatient providers include a headache specialist who cares for patients with primary and secondary headache disorders, including migraines.

EDUCATIONAL ACTIVITIES:

As clinician educators, faculty participate in training medical students and residents by working closely with them during clinical rotations and participating in didactic sessions.

RESEARCH ACTIVITIES:

The Division of Comprehensive Neurology is actively involved in leading quality improvement activities and investigation in health systems research.



DIVISION ACCOMPLISHMENTS/ HIGHLIGHTS:

Andres Saenz, MD, was chosen as an Academy of Educational Scholars Star Educator by the Long School of Medicine.

Missak Tchoulhakian, DO, joined the faculty as our second neurohospitalist.



FACULTY LISTING:

John E. Carter, MD
Professor
Departments of Neurology and Ophthalmology

Deborah Carver, MD
Professor/Clinical
Department of Neurology

Jose E. Cavazos, MD, PhD
Professor
Departments of Neurology and Cellular & Integrative Physiology
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases
Assistant Dean for MD/PhD Program
Associate Dean for Research, Graduate Medical Education Programs
Long School of Medicine

Kyle Chan, FNP
Specialist
Department of Neurology

Alexis Cieker, PA-C
Specialist
Department of Neurology

Romana Kleinguenther, MD
Clinical Assistant Professor
Department of Neurology

Sarah Nishimuta, MSN, APRN, AGACNP-BC
Specialist
Department of Neurology

Michael Palm, MD
Associate Professor/
Clinical
Vice Chair, Education
Department of Neurology
Program Director,
Neurology Residency

Andres Saenz, MD
Assistant Professor/Clinical
Department of Neurology

Donnelle Storrs, DNP
Specialist
Department of Neurology

Missak Tchoulhakian, DO
Assistant Professor/Clinical
Department of Neurology

Karlene Winn, DNP
Specialist
Department of Neurology



EPILEPSY

OVERVIEW:

The Division of Epilepsy is focused on providing the best care to our patients based on nationally accepted practice guidelines utilizing the newest technological advancements. Our faculty is engaged in clinical trials and innovative research and educates the next generation of neurologists and epilepsy specialists by teaching medical students, residents and fellows. We enjoy a close collaborative relationship with the Epilepsy Foundation of Central and South Texas through our support of outreach clinics in the underserved communities of South Texas.

CLINICAL ACTIVITIES:

The flagship of the epilepsy program is the South Texas Comprehensive Epilepsy Center (STCEC). The STCEC is a multidisciplinary affiliation of adult and pediatric epileptologists, epilepsy surgeons, dietitians and neuropsychologists working in conjunction

with University Hospital. The STCEC has been a member of the National Association of Epilepsy Centers since 2008 and is accredited as a Level IV Center, the highest designation.

The epilepsy surgery program is focused on providing our patients with an individualized surgical approach for qualified patients. Since 1996, the program has treated over 500 adults and children with medically intractable epilepsies with resective, disconnection, laser ablation, and intracranial neurostimulation technologies.

The STCEC provides innovative care utilizing the newest technological advancements in epilepsy surgery and neurostimulation. In Central and South Texas, UT Health San Antonio has been a pioneer of epilepsy surgeries, performing the first intracranial electroencephalogram (EEG) with grid and depth electrodes as well as stereotactic EEG electrodes in adults and children and implanting the

first responsive and deep brain stimulators in San Antonio and South Texas. The STCEC also has one of the most active Vagus Nerve Stimulator implantation/reimplantation programs in the nation.

Outpatients are seen at the Medical Arts and Research Center and University Hospital Clinic. Clinics include a Ketogenic Diet Clinic and a (soon to be multidisciplinary) Tuberous Sclerosis Clinic for children and adults.

EDUCATIONAL ACTIVITIES:

In addition to our involvement in teaching medical students and neurology residents, we offer two one-year fellowships in Epilepsy and Clinical Neurophysiology, respectively.

RESEARCH ACTIVITIES:

Our research includes clinical trials and innovative research for patients with medically refractive epilepsies. Faculty have been engaged in inpatient and outpatient clinical trials, including Phase 2 and 3 medication trials, as well as post-marketing medication and device studies:

RAISE Phase 3 (Bui, Koneru): A double-blind, randomized, placebo-controlled study to evaluate the efficacy and safety of intravenous ganaxolone in status epilepticus.

EPINET (Bui, Leary):

EPITEL (Karkar): Impact of capturing ictal events with ultra-long-term ambulatory EEG monitoring with REMI.

Jazz Tuberous Sclerosis Caregiver Study (Leary, Szabo): Tuberous Sclerosis Syndrome and Epidiolex: Non-Seizure Outcomes Mixed Methods Research Protocol

EPICOM (Leary, Szabo): A Phase 4, Interventional, Multicenter, Open-Label, Single-Arm Study to Assess Behavioral and Other Co-occurring Outcomes Following Treatment With EPID(I/Y)OLEX as Add-on Therapy in Participants (Aged 1 to 65 Years Old) With Seizures Associated with Tuberous Sclerosis Complex (EpiCom)

Retrospective SUDEP at Epilepsy Centers: A Case Control Study (Szabo): A Multi-Site Study on Sudden Unexpected Death in Epilepsy-Risk Factors and Pathophysiology

XPF 010-301 (Szabo, Koneru): A Randomized, Double-blind, Placebo-Controlled, Multicenter Phase 3 Study to Evaluate the Safety, Tolerability, and Efficacy of XEN1101 as Adjunctive Therapy in Focal-Onset Seizures

XPF 010-303 (Szabo, Koneru): A Randomized, Double-blind, Placebo-Controlled, Multicenter, Phase 3 Study to Evaluate the Safety, Tolerability, and Efficacy of XEN1101 as Adjunctive Therapy in Primary Generalized Tonic-Clonic Seizures

XPF 010-304 (Szabo, Koneru): A Multicenter, Open-label, Long-term, Safety, Tolerability, and Efficacy Study of XEN1101 in Adults Diagnosed with Epilepsy

BHV7000-302 Study (Lie, Skalomenos): A Phase 2/3 Multicenter, Randomized, Double-Blind, Placebo-Controlled, Study to Evaluate the Efficacy, Safety and Tolerability of BHV-7000 in Subjects with Refractory Focal Onset Epilepsy

Faculty are frequent collaborators with researchers from several local institutions, including the Texas Biomedical Research Institute, the University of Texas at San Antonio, the University of Texas Rio Grande Valley, and our own Research Imaging Institute.

PUBLICATIONS:

Szabó CÁ, Kasteleijn D. 2023. Myoclonus as a Manifestation of Reflex Seizures. *J Clin Neurophysiol*, 40:109-116.

Szabó CÁ, Salinas FS. 2022. Neuroimaging in the Baboon. *Front Vet Sci*, doi: 10.3389/fvets.2022.908801

Kanner AM and HEP Investigators, "Mood and anxiety disorders and suicidality in newly diagnosed focal epilepsy: an analysis of a complex comorbidity." 2023. *Neurol* 100(11):e1123-e1134.



FACULTY LISTING:

Charles Akos Szabo, MD
Professor/Clinical
Department of Neurology
Chief, Division of Epilepsy

Diep Bui, MD
Assistant Professor/Clinical
Department of Neurology

Kameel Karkar, MD
Professor/Clinical
Department of Neurology

Srekanth Koneru, MD
Assistant Professor/Clinical
Department of Neurology

Octavian Lie, MD, PhD
Associate Professor/Clinical
Department of Neurology

Lola Morgan, MD
Professor/Clinical
Department of Neurology

Lauren Skalomenos, MD
Assistant Professor/Clinical
Department of Neurology

Florence Wall, PA-C
Specialist
Department of Neurology



MOVEMENT DISORDERS

OVERVIEW:

The Movement Disorders Division and our Neurosurgery colleagues function as the Parkinson's Disease and Movement Disorders Program at UT Health San Antonio. Together, we are a model of compassion, dedication, innovation, and excellence for the community. Our center has all the resources to provide each patient with individualized and personal care based on their needs. Our nationally recognized Movement Specialists collaborate with a team of physical therapists, speech therapists, Neuropsychologists and Psychiatrists to help patients with the best and most innovative care they need.

CLINICAL ACTIVITIES:

We are the only comprehensive Movement Disorders Center in South Central Texas and offer patients access to innovative therapies, including Deep Brain Stimulation, Continuous Levodopa Pump, Botulinum Toxin injections and all newly approved therapies for movement

disorders. We are a comprehensive, multidisciplinary center where patients can find specialized healthcare providers who understand the disease process and its ramifications, providing access to supplementary services from the Glen Biggs Institute for Alzheimer's and Neurodegenerative Diseases at UT Health San Antonio, neurocognitive evaluations with qualified neuropsychologists, psychiatric evaluations for mood disorders, neurosurgery evaluation for deep brain stimulation (DBS) implantation, genetic counseling, rehabilitation (PT/OT), speech and swallowing dysfunction (ENT) and other medical subspecialties.

We are a partner site for the Huntington Disease Society of America Center of Excellence Level 1 with UTHealth Houston. This alliance has benefited our Huntington's disease community by providing access to genetic counseling, neuropsychology, social work, educational events, support groups and clinic trials.

We also offer a MIND Movement Disorder

clinic for patients needing expedited evaluation of cognitive complaints in the setting of Parkinsonism. Similar comprehensive specialized clinics by condition/disease will be created in the near future.

EDUCATIONAL ACTIVITIES:

We offer one two-year position for the Movement Disorders Fellowship. The first year focuses primarily on clinical and procedural skills, and the second year incorporates additional time for research. We also provide active clinical education to medical students during their neurology rotation, neurology residents in training and occasionally visitor fellows from other

specialties. There is also participation in recurrent lecture series as part of the department's educational curriculum.

RESEARCH ACTIVITIES:

We offer a robust research program, including many clinical trials and innovative research for patients with Parkinson's Disease and other movement disorders. We are enrolling for five Parkinson's Study Group (PSG) clinical trials and various industry-funded trials. Over the past eight months, we have become one of the top five enrolling sites for the PDGeneration study, completing genetic testing in over 120 patients.



HONORS AND AWARDS:

Sarah Horn, MD, was named Texas Monthly Rising Star.



DIVISION ACCOMPLISHMENTS/HIGHLIGHTS:

Okeanis Vaou, MD, Division Chief as of February 2023.

UT Health San Antonio was designated as a Parkinson's Foundation Comprehensive Care Center in July 2023, the only one in Texas and the eighth in the nation. This recognition is a testament to our specialized, multidisciplinary teams providing evidence-based Parkinson's Care.

Pablo Coss, MD, took on the Director of the Huntington's Disease Center of Excellence role and has collaborated with our social

worker, Angela Quiroz, to develop educational handouts for our Huntington's Disease patients.

Two new support groups for Lewy Body Dementia and Parkinson's Disease patients were created by our social worker, Angela Quiroz.

Sarah Horn, MD, and Okeanis Vaou, MD, facilitated the neurotoxin course at the AAN.

Vaou co-hosted the Neuro-Jeopardy at the AAN.

Vaou moderated the PSG meeting in Advanced Therapies.



FACULTY LISTING:

Okeanis Vaou, MD
Associate Professor/Clinical Vice Chair of Faculty Development and Wellness
Department of Neurology Chief, Division of Movement Disorders

Pablo Coss, MD
Assistant Professor/Clinical Department of Neurology

Jessica Grimaldo, PA-C
Specialist
Department of Neurology

Sarah Horn, MD
Assistant Professor/Clinical Department of Neurology

Diana Solis, DNP
Specialist
Department of Neurology



NEUROIMMUNOLOGY

OVERVIEW:

The Division of Neuroimmunology is committed to providing compassionate, evidence-based and multi-disciplinary care while advancing knowledge through clinical research, evaluating health disparities in our community, and educating future generations of neuroimmunologists.

CLINICAL ACTIVITIES:

Patient care is provided at the Medical Arts & Research Center, where we operate outpatient clinics and provide botulinum toxin injections and baclofen pump maintenance. We are the first Comprehensive Multiple Sclerosis Center in South Central Texas, a prestigious designation granted by the National Multiple Sclerosis Society (NMSS). We are only 1 of 8 centers in Texas with this designation.

Multi-disciplinary care includes collaboration with neuropsychology, occupational therapy, physical therapy,

speech-language pathology, and social work.

EDUCATIONAL ACTIVITIES:

Faculty members actively participate in the clinical education of medical students during their neurology clerkship rotation and graduate medical education to neurology residents. Advanced training is available to fellows seeking to subspecialize in neuroimmunology.

RESEARCH ACTIVITIES:

We participate in clinical trials and research for neuroimmunology patients, including Multiple Sclerosis, Neuromyelitis Optica Spectrum Disorder and Myelin Oligodendrocyte Glycoprotein Antibody Disease. Current and prior research includes:

Enrolling Studies:

The MS Leadership and Innovation Network (MS-LINK™) Outcomes Study: A Comprehensive Prospective Longitudinal Assessment of Patient and Clinical

Reported Outcomes in Multiple Sclerosis Patients across North America

Next Generation Learning Health System for Multiple Sclerosis (Next-Gen MS): A prospective, cluster-randomized study evaluating the impact of “feed-forward” patient-reported outcomes data to clinical teams managing adults living with MS in a learning health system for MS research.

A randomized, double-blind, placebo-controlled multicenter Phase 3 pivotal study to evaluate the efficacy and safety of rozanolixizumab to Texas adults with Myelin Oligodendrocyte Glycoprotein (MOG) antibody-associated disease (MOG001)

A randomized, double-blind, double-dummy, parallel-group study comparing the efficacy and safety of remibrutinib versus teriflunomide in participants with relapsing multiple sclerosis, followed by extended treatment with open-label remibrutinib (REMODEL-2)

Completed Studies:

A Multicenter, randomized, double-blind, placebo-controlled, phase 3 study to evaluate the efficacy and safety of SA237 as monotherapy in patients with neuromyelitis optica (NMO) and NMO spectrum disorder (NMOSD).

A Prospective, single-arm, clinical-setting study to describe efficacy, tolerability and convenience of AUBAGIO® treatment using patient-reported outcomes (PROs) in relapsing multiple sclerosis (RMS) patients.

A longitudinal study to identify and validate biomarkers from serum and cerebrospinal fluid in patients evaluated by neurologists.

Safety and efficacy of fingolimod in pediatric patients with multiple sclerosis.

An observational study of ocrelizumab-treated patients with multiple sclerosis to determine the incidence and mortality rates of breast cancer and all malignancies.



HONORS AND AWARDS:

- Texas Top Docs – **Rebecca S. Romero, MD**
- Texas Super Doctors – **Rebecca S. Romero, MD**
- American Academy of Neurology (AAN) Palatucci Advocacy Leader – **Rebecca S. Romero, MD**



DIVISION ACCOMPLISHMENTS/HIGHLIGHTS:

- Tania Reyna, MD**, Neurology Clinic Director President of the American Academy of Neurology in April 2023.
- Rebecca S. Romero, MD**, coordinated and organized the Texas Neurologic Society Summer 2023 meeting.



FACULTY LISTING:

- Rebecca Romero, MD**
Associate Professor/Clinical Department of Neurology Chief, Division of Neuroimmunology
- Tania Reyna, MD**
Associate Professor/Clinical Department of Neurology
- Donnelle Storrs, DNP**
Specialist Department of Neurology



NEUROMUSCULAR MEDICINE

OVERVIEW:

The Division of Neuromuscular Medicine is dedicated to providing quality care based on nationally accepted practice guidelines, advancing discovery through clinical research and educating the next generation of neuromuscular specialists.

CLINICAL ACTIVITIES:

Patient care is provided at the Medical Arts & Research Center, where we operate outpatient clinics and provide electromyography (EMG) and autonomic testing services. As the only ALS Center in South Central Texas certified by the National ALS Association, we are proud to offer patients access to multidisciplinary, team-based care that includes physicians, dietitians, genetic counselors, neuropsychologists, occupational therapists, physical therapists and speech-language pathologists.

EDUCATIONAL ACTIVITIES:

Faculty members actively participate in the clinical education of medical students during their neurology clerkship rotations. We are also involved in teaching neurology residents and other rotating residents from other specialties. Advanced training is provided to fellows seeking to subspecialize in clinical neurophysiology.

RESEARCH ACTIVITIES:

We participate in clinical trials and innovative research for patients with ALS, myasthenia gravis, muscular dystrophies, and peripheral neuropathies.

CURRENT RESEARCH INCLUDES:

05/22-Present
Principal Investigator, Alexion Pharmaceuticals / "A Phase 2, Randomized, Double-Blind, Placebo-

Controlled Multi-Center Study to Evaluate the Efficacy and Safety of ALXN2050 in Adult Participants with Generalized Myasthenia Gravis" (Sanka)

09/21-Present
Principal Investigator, A Phase 3, Randomized, Open-Label, Parallel-Group Study to Compare the Pharmacodynamics, Pharmacokinetics, Efficacy, Safety, Tolerability, and Immunogenicity of Multiple Subcutaneous Injections of Efgartigimod PH20 SC With Multiple Intravenous Infusions of Efgartigimod in Patients with Generalized Myasthenia Gravis (Sanka)

07/21-Present
Principal Investigator, Viela Bio / A Randomized, Double-Blind, Multi-center, Placebo Controlled Phase 3 Study with Open-Label Period to Evaluate the Efficacy and Safety of Inebilizumab in Adults with Myasthenia Gravis (Sanka)

01/2020-present
Anelixis: Member of DSMB for a Phase 2, Randomized, Double-Blind, Placebo Controlled Study in Amyotrophic Lateral Sclerosis (Jackson)

01/2021-present
Mitsubishi Tanabe Pharma America: Chair of DSMB for an Open-Label Study of Oral Edaravone in Amyotrophic Lateral Sclerosis (Jackson)

03/2020-Present
Principal Investigator, A Phase 2 Trial to Investigate the Efficacy, Safety, and Tolerability of Efgartigimod PH20 SC in Adult Patients with Chronic Inflammatory Demyelinating Polyneuropathy. (Sanka)

03/2018-Present
Sub-investigator, Evaluation of Cryotherapy and TRPA1 Receptors in Chemotherapy Induced Neuropathy (Sanka)

08/17-Present
Principal Investigator. A phase 3, randomized, double-blind, placebo-controlled efficacy, and safety study of Ataluren in patients with nonsense mutation Duchenne muscular dystrophy

and Open-label extension (Sanka)

08/2017-Present
Cytokinetics, Inc. - CY 5022, A Phase 2, Multi-center, DoubleBlind, Randomized, Dose-Ranging, Placebo-Controlled Study to Evaluate the Efficacy, Safety, and Tolerability of CK-2127107 In Patients with Amyotrophic Lateral Sclerosis (ALS) (Sanka)

08/2017-Present
FLX-787-ODT, A Randomized, Double-Blind, Controlled, Parallel Group Study to Evaluate the Efficacy and Safety of FLX-787- ODT For Treatment of Muscle Cramps in Adult Subjects with Motor Neurone Disease (Sanka)

05/2017-Present
AMX0035, Evaluation of the Safety, Tolerability, Efficacy and Activity of AMX0035, A Fixed Combination of Phenylbutyrate (PB) and Tauroursodeoxycholic Acid (TUDCA), For Treatment of Amyotrophic Lateral Sclerosis (ALS) (Sanka)

04/2017-Present
Neuraltus - NP001, A Phase II, Randomized, Double-Blind, Placebo-Controlled, Multi-center Study of NP001 In Subjects with Amyotrophic Lateral Sclerosis (ALS) and Evidence of Elevated Systemic Inflammation (Sanka)

12/2016-Present
CY 4033, A Phase III, Open-Label Extension Study of Tirasemtiv for Patients with Amyotrophic Lateral Sclerosis (ALS) Who Completed VITALITY-ALS (CY 40131) (Sanka)

10/2016-Present
LRP4, National Institutes of Health/ Georgia Regents University, Characterization of Agrin/LRP4 Antibody-Positive Myasthenia Gravis (Sanka)

10/2015-Present
CREATE, Rare Diseases Clinical Research Network, Phenotype, Genotype, and Biomarkers (PGB) In ALS and Related Disorders (Clinical Research in ALS & Related Disorders for Therapeutic Development CREATE) (Sanka)

04/2011-Present

CK-2017357 In Patients With MG, A Phase II, Double-Blind, Randomized, Three-Way Crossover, Placebo-Controlled, Pharmacodynamic Study of CK-2017357 In Patients with Generalized Myasthenia Gravis on Standard Therapy (Sanka)

01/2011-Present

Methotrexate, Methotrexate, Phase II Trial of Methotrexate in Myasthenia Gravis (Sanka)

PUBLICATIONS:

Roy B, Peck A, Evangelista T, Pfeffer G, Wang L, Diaz Manera J, Korb M, Wicklund M, Milone M, Freimer M, Kushlaf1 H, Villar-Quiles R, Stojkovic T, Needham M,

H, Jackson CE, Wymer J, Salah A & Nelson S (2023) Oral edaravone – Introducing a Flexible Treatment Option for Amyotrophic lateral sclerosis, Expert Review of Neurotherapeutics, DOI: [10.1080/14737175.2023.2251687](https://doi.org/10.1080/14737175.2023.2251687)

Shefner JM, Al-Chalabi A, Andrews JA, Chio A, De Carvalho M, Cockroft BM, Corcia P, Couratier P, Cudkowicz ME, Genge A, Hardiman O, Heiman-Patterson T, Henderson RD, Ingre C, Jackson CE, Johnston W, Lechtzin N, Ludolph A, Maragakis NJ, Miller TM, Mora Pardina JS, Petri S, Simmons Z, Van Den Berg LH, Zinman L, Kupfer S, Malik FI, Meng L, Simkins TJ, Wei J, Wolff AA & Rudnicki SA (2023). COURAGE-ALS: a randomized, double-blind phase 3 study designed to improve participant experience and increase the probability of success, Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration, DOI: [10.1080/21678421.2023.2216223](https://doi.org/10.1080/21678421.2023.2216223)

Gebrewet P, Meng L, Rudnicki SA, Sarocco P, Wei J, Wolff A, Butzner M, Chio A, Andres JA, Genge A, Hughes DA, Jackson CE, Lechtzin N, Miller TM, and Shefner JM. Health Utilities and Quality-Adjusted Life Years for Patients with Amyotrophic Lateral Sclerosis Receiving Riluzole or Placebo in FORTITUDE-ALS. Journal of Medical Economics March 2023. <https://doi.org/10.1080/13696998.2023.2192588>

Haloot J, DO, MS, Bhavaraju-Sanka, MD, Pillarisetti J, MD, Mac, Verduzco-Gutierrez, MD. Autonomic Dysfunction Related to Postacute SARS-CoV-2 Syndrome. Physical. Medicine and Rehabilitation Clinics of North America, Volume 34, Issue 3, 2023, Pages 563-572.

Haloot J, Bhavaraju-Sanka R, Pillarisetti J, Verduzco-Gutierrez M. Autonomic Dysfunction Related to Postacute SARS-CoV-2 Syndrome. Phys Med Rehabil Clin N Am. 2023 Apr 18. doi: 10.1016/j.pmr.2023.04.003. Epub ahead of print. PMID: PMC10110930.

Melamed, E, Rydberg, L, Ambrose, AF, Bhavaraju-Sanka, R et al.

Multidisciplinary collaborative consensus guidance statement on the assessment and treatment of neurologic sequelae in patients with post-acute sequelae of SARS-CoV-2 infection (PASC). PM&R. 2023; 15(5): 640- 662. doi:[10.1002/pmrj.12976](https://doi.org/10.1002/pmrj.12976)



HONORS AND AWARDS:

Texas Top Docs – **Ratna Bhavaraju-Sanka, Carlayne Jackson**

Master Clinician Award – **Ratna Bhavaraju-Sanka**

Fellow of the American Academy of Neurology (AAN) – **Ratna Bhavaraju-Sanka, Matthew Wicklund, Carlayne Jackson**



DIVISION ACCOMPLISHMENTS/HIGHLIGHTS:

Carlayne Jackson, MD, FAAN, assumed the role of President of the American Academy of Neurology in April 2023

Matthew Wicklund, MD, FAAN, joined the faculty as Vice Chair, Research in May 2023

Cassie Chan, MD, joined the faculty in October 2023



FACULTY LISTING:

Ratna Bhavaraju-Sanka, MD
Associate Professor/Clinical Vice Chair for Clinical Services
Department of Neurology
John H. Doran Endowed Chair in Peripheral Neuropathy

Cassie Chan, MD
Assistant Professor/Clinical
Department of Neurology

Carlayne Jackson, MD
Professor
Departments of Neurology and

Otolaryngology
Chair of Neurology
Edna Smith Dielman Distinguished
University Chair

Lorelei Salazar, PA-C
Specialist
Department of Neurology

Matthew Wicklund, MD
Professor
Vice Chair for Research
Department of Neurology



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Palmio J, Lloyd T, Keung B, Mozaffar T, Wehl C, Kimonis V.

Provisional practice recommendation for the management of myopathy in VCP-associated multisystem proteinopathy. Annals of Clinical and Translational Neurology 2023 – <https://doi.org/10.1002/acn3.51760>.

Pattee GL, Genge A, Couratier P, Lunetta C, SobueG, Aoki M, Yoshino



NEUROPSYCHOLOGY

OVERVIEW:

The Division of Neuropsychology is dedicated to providing outstanding care to patients and their families who experience cognitive and behavioral changes related to medical illness, injury, neurologic conditions and neuropsychiatric disorders. Our clinical neuropsychologists utilize expertise in brain-behavior relationships to aid with complex differential diagnoses of neurocognitive disorders and discover how underlying conditions affect daily functioning and quality of life. The division offers many pathways to engage in clinical research to understand further and treat cognitive problems. We are committed to providing excellent training to future neuropsychologists and medical students, residents and fellows interested in a deeper understanding of neuropsychology.

CLINICAL ACTIVITIES:

We offer comprehensive neuropsychological assessments to help

with diagnosis, quantify cognitive and emotional status, and guide treatment planning. We participate in several novel, multi-disciplinary clinics designed to expedite the path from symptom onset to confirmed diagnosis, treatment and access to clinical research for neurodegenerative diseases. Our assessment services range from focused examinations to extensive full-day evaluations depending on the referral question. Our intervention services include cognitive rehabilitation and cognitive-behavioral therapy for psychogenic nonepileptic seizures. Outpatient services are provided at the Medical Arts and Research Center, and inpatient services are provided at University Hospital.

EDUCATIONAL ACTIVITIES:

Faculty members are actively engaged in our two-year fellowship program in clinical neuropsychology and support undergraduate and graduate medical educational efforts in neurology and other specialties. Our team of experts

frequently gives talks at local, national and international conferences. We also offer educational talks and resources to our community through various outreach events.

RESEARCH ACTIVITIES:

Our faculty engage in a wide range of research activities as principal and co-investigators, including clinical trials and investigator-initiated projects. Current actively recruiting studies include:

01/24-12/24
Principal Investigator, Baptist Health Foundation, Care Ecosystem (Sullivan)

09/23-08/24
Co-Investigator, National Institute on Aging (R56AG082698; PI Syed), A Deep Learning Algorithm to Detect Signs of Cognitive Aging (Sullivan)

08/22-07/25
Mentor, Alzheimer's Association Research Fellowship (AARF-22-928831; PI Scott), Validating a Measure for Disorders of Diminished Motivation in Older Adults (Hilsabeck)

05/22-04/25
Co-Investigator, Alzheimer's Association Research Grant (AARG-22-924771; PI Benge), Assessing Technology Use in Activities of Daily Living (Hilsabeck)

09/21-08/26
Principal Investigator, Clinical Core, National Institute on Aging (P30AG066546; PI Seshadri), The South Texas Alzheimer's Center Clinical Data Repository and Biobank (Sullivan)

07/21-07/26
Site Principal Investigator, National Institute on Aging and National Institute of Neurological Disorders and Stroke (U19NS120384; PIs DeCarli and Fornage), The Clinical Significance of White Matter Lesions on MRI among Diverse Population with Cognitive Complaints (DiverseVCID or INDEED) (Hromas)

02/21-01/26
Co-Investigator, National Institute on Aging (R01AG067546; PI Lindauer), Using

Technology to Support Care Partners for Persons with Alzheimer's Disease: Tele-Stella (Sullivan)

09/20-08/25
Principal Investigator, National Institute on Aging (R61/R33AG069780), Cognitive Screening Made Easy for Primary Care Providers (Hilsabeck)

09/19-06/25
Site Principal Investigator, National Institute on Aging (U19AG063911; PI Boeve), ARTFL LEFFTDS Longitudinal Frontotemporal Lobar Degeneration (Sullivan)

07/22-06/27
Co-Investigator, National Institute on Aging (R01AG079282; PI Salinas), Identifying ADRD intervention targets by characterizing neurobiological mechanisms of social isolation, loneliness, and social environment using novel imaging, molecular markers, and machine learning (Werry)

04/23-03/28
Co-Investigator, National Institute of Neurological Disorders and Stroke (R01NS017950; PI Romero), Precursors of Stroke Incidence and Prognosis (Werry)

10/23-10/26
Co-Principal Investigators, Neuropsychological Outcomes in Medical Conditions (Werry & Hromas)

PUBLICATIONS:

Marquine, M. J., Kamalyan, L., Parks, A., Perales, J., Gonzalez, D. A., Rosado-Bruno, M., North, R., Werry, A. E., Kiselica, A. M., Reyes, M., Chapman, S., Dodge, H. H., Rascovsky, K. (2023). Diagnostic utility of culture/language-specific normative data on the Version 3 of the Uniform Dataset Neuropsychological Battery for differentiating stages of cognitive impairment among Latinos in the United States. *Alzheimer's and Dementia*.

Marquine, M. J., Parks, A., Perales-Puchalt, J., González, D. A., Rosado-Bruno, M., North, R., Pieper, C., Werry, A. E., Kiselica, A., Chapman, S., Dodge, H.,

Gauthreaux, K, Kukull, W. A., Rascovsky, K. (2023). Demographically-adjusted normative data among Latinos for the Version 3 of the Alzheimer Disease Centers' neuropsychological test battery in the Uniform Data Set. *Alzheimer's & Dementia*, 19, 4174-4186.

Davis, J. J. (2023). Time is money: Examining the time cost and associated charges of common performance validity tests. *The Clinical Neuropsychologist*, 37(3), 475-490.

Davis, J. J., Sivaramakrishnan, A., Rolin, S., & Subramanian, S. (2023). Intra-individual variability in cognitive performance predicts functional decline in Parkinson's disease. *Applied Neuropsychology: Adult*. Advance online publication.

Steel, S. A., Rolin, S., & Davis, J. J. (2023). Relatively undervalued: comparing the work relative value units of neuropsychological evaluation to other services. *The Clinical Neuropsychologist*. Advance online publication.



HONORS AND AWARDS:

Amy Werry, PsyD, ABPP, received the American Board of Professional Psychology's Early Career Diversity Award



DIVISION ACCOMPLISHMENTS/ HIGHLIGHTS:

Amy Werry, PsyD, ABPP, appointed as the UTHSCSA representative to the Texas Alzheimer's Research and Care Consortium (TARCC) Steering Committee in August 2023

Amy Werry, PsyD, ABPP, Lead Instructor for the Multicultural Psychology course at UTSA (University of Texas at San Antonio) in Fall 2023

Gabrielle Hromas, PhD, the division's inaugural postdoctoral fellow, joined the faculty as Assistant Professor in October 2023

Stephanie Santiago-Mejias, PhD, joined the faculty in October 2023

Robin Hilsabeck, PhD, ABPP, joined the faculty as Division Chief of Clinical Neuropsychology in December 2023.



FACULTY LISTING:

Robin Hilsabeck, PhD

Professor
Department of Neurology
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases
Chief, Division of Neuropsychology

Brittany Cerbone, PhD

Assistant Professor/Clinical
Department of Neurology

Jeremy Davis, PsyD

Associate Professor/Clinical
Department of Neurology

Gabrielle Hromas, PhD

Assistant Professor
Department of Neurology
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Johanna Messerly, PsyD

Assistant Professor/Clinical
Department of Neurology

Stephanie Santiago Mejias, PhD

Assistant Professor
Department of Neurology
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Campbell Sullivan, PsyD

Associate Professor/Clinical
Department of Neurology
Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Amy Werry, PsyD

Assistant Professor/Clinical
Department of Neurology



VASCULAR NEUROLOGY

OVERVIEW:

The Division of Vascular Neurology faculty treats ischemic and hemorrhagic strokes as part of the only Joint Commission-accredited Comprehensive Stroke Center in San Antonio. We provide outpatient stroke care at UT Health San Antonio Physicians clinics and University Hospital. In addition to teaching medical students and neurology residents, the Division also offers fellowship training in vascular neurology through an ACGME-accredited fellowship. Approval for our CAST-accredited central nervous system endovascular fellowship jointly run by the neurosurgery and neurology departments was received. All faculty are actively involved in research clinical trials and several state and national consortiums.

CLINICAL ACTIVITIES:

Our division has a full scope of clinical resources to provide each patient with individualized personal care.

Working with a multidisciplinary team of providers, including neurointensivists, neurosurgeons, neuropsychologists, physiatrists, occupational therapists, physical therapists and speech-language pathologists, allows us to provide the best care to patients. Our team provides in-hospital acute stroke therapies, including intravenous thrombolysis and mechanical thrombectomy. Secondary stroke prevention care and post-stroke disability treatments, including botulinum toxin injections for spasticity, are provided at our outpatient clinics.

We have been regional leaders in the transition to Tenecteplase as the thrombolytic of choice for acute stroke treatment. Additionally, our endovascular services include a state-of-the-art biplane neuro-angiography suite at University Hospital. Finally, our interdepartmental collaborations with the Glenn Biggs Institute for Alzheimer's and Neurodegenerative Diseases and

UT Health San Antonio Department of Rehabilitation Medicine ensure optimal stroke recovery that includes both mind and body.

EDUCATIONAL ACTIVITIES

We offer a one-year Accreditation Council for Graduate Medical Education (ACGME) accredited vascular neurology fellowship and have one position per year. The fellowship offers subspecialty electives that include endovascular neurosurgery, neurocritical care, neuroradiology, spasticity clinic and research. The inpatient rotations are at the University Hospital Comprehensive Stroke Center, and the outpatient clinics are at the UT Health San Antonio facilities and University Hospital. Our graduates have accepted a wide variety of positions including neuro-

interventional fellowships, academic faculty, stroke directorships and neuro-hospitalists.

RESEARCH ACTIVITIES:

The Vascular Neurology division is a leader in stroke research that includes funded trials from private industry, the State of Texas Lone Star Stroke Consortium and federal National Institutes of Health (NIH) StrokeNet. Our comprehensive stroke research focuses on acute stroke treatment with Tenecteplase, secondary stroke prevention with antithrombotics and statins, as well as rehabilitation and recovery for determinants of functional and cognitive outcomes. The research team includes a dedicated stroke research nurse, a regulatory affairs analyst and a neuroscience research operations director.

OUR ACTIVE VASCULAR NEUROLOGY RESEARCH STUDIES:

Captiva	Comparison of Anti-coagulation and anti-Platelet Therapies for Intracranial Vascular Atherostenosis
ASPIRE	ICH survivors with AF to apixaban or aspirin
OCEANIC BAY	A multicenter, randomized, placebo controlled, double-blind, parallel group and event driven Phase 3 study of the oral FXIIa inhibitor asundexian for the secondary prevention of ischemic stroke in adult patients with an acute non-cardioembolic ischemic stroke or high-risk TIA (OCEANIC-Stroke).
SATURN	Statins use in intracerebral hemorrhage patients
Wingspan	Stryker HDE Wingspan Stent System and Gateway PTA Balloon Catheter
START	Optimal Delay Time to Initiate Anticoagulation after Ischemic Stroke in Atrial Fibrillation (START)
TNK pilot	Multicenter Registry of Intravenous Thrombolytics in the Treatment of Acute Ischemic Stroke
REASSESS ICH	The REpeated ASSEssment of SurvivorS in ICH
VAST	eVALuation of post Stroke Telehealth Services in Texas (VAST)
DISCOVERY	Determinants of Incident Stroke Cognitive Outcomes and Vascular Effects on Recovery (DISCOVERY)
LESTER	Lone Star Stroke Consortium TeleStroke Registry



HONORS AND AWARDS:

Our team meets or exceeds all American Heart Association/American Stroke Association national time standards for lifesaving treatment, including door to thrombolytic, CT, lab, EKG (electrocardiogram) and chest X-ray. Our team received the 2023 Gold Plus, Target: Stroke Honor Roll Elite, Target: Type 2 Diabetes Honor Roll as part of the American Heart Association/American Stroke Association's Get with the Guidelines® Stroke program. University Hospital rates for using intravenous thrombolytics are well above the national average, which means more people have been able to take advantage of this time-sensitive treatment and reduce disability in stroke survivors.



DIVISION ACCOMPLISHMENTS/HIGHLIGHTS:

In collaboration with UT Health San Antonio Department of Neurosurgery, we have initiated a CAST-certified CNS-Endovascular fellowship at University Hospital.

Annual Gold Plus American Heart Association/American Stroke Association's Get with the Guidelines-Stroke program award.

In collaboration with the rest of the Texas academic stroke centers, we have built a registry of acute strokes who received IV thrombolytics to assess patient outcomes. This has led to multiple abstracts being accepted at national conferences and manuscripts in the process.

We have jointly built a lecture series and journal clubs with neurocritical care and vascular neurology teams.

We have seen increased patient satisfaction numbers in our clinics at the UT Health Medical Arts and Research Center and University Hospital stroke clinic sites. We have also seen a constant uptrend in patient satisfaction from our inpatient services.

Due to outreach efforts, we have established stroke survivor groups offered through the University Hospital stroke care coordination teams.



FACULTY LISTING:

Lee Birnbaum, MD, MS

Professor/Clinical, Neurology, Neurosurgery, and Radiology
Ross J. Sibert Research Fund
Distinguished Chair
Vascular Neurology Fellowship Co-Director

Sujani Bandela, MD

Assistant Professor/Clinical
Associate Program Director,
Neurology Residency

Reza Behrouz, MD

Professor/Clinical

Vascular Neurology Research Director

Mark P. Goldberg, MD

Associate Vice President, Strategic
Research Initiatives
Office of the VP for Research
Professor
Edward B. LeWinn MD Memorial Chair

Andrew Slusher, MD

Assistant Professor/Clinical

Christopher Hans Topel, DO

Assistant Professor/Clinical
Vascular Neurology Fellowship Co-Director

