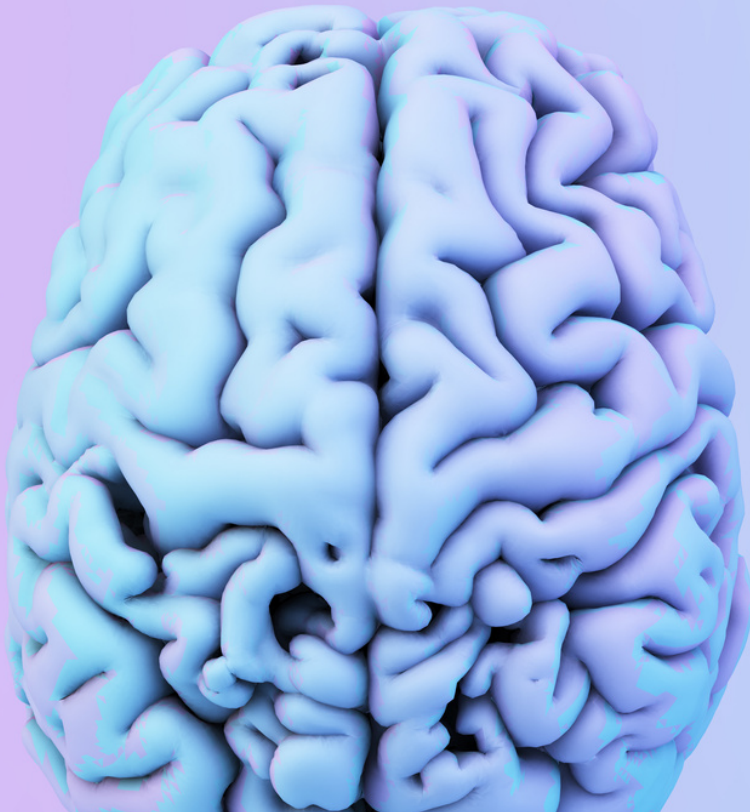


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THE GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

The Neurology & Rehabilitation Medicine Newsletter



The GW Medical Faculty Associates
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A WELCOME MESSAGE

Dear all,

Unfortunately, this message carries a heavy weight as we navigate through a somber time within our GW community. As such, I will postpone the updates about the Department of Neurology and Rehabilitation Medicine until the next issue.

The recent loss of one of our ophthalmology residents has left us all reeling, grappling with the sudden and shocking departure of a valued member of our community. The effects of this loss are profound and difficult to process, and it is crucial that we come together to support one another during this trying period.

In times like these, resilience and support become paramount. Let us remind our trainees and students that we are here for each other, ready to lend an empathetic ear and offer a helping hand. Encourage them to speak up if they are facing any emotional challenges, and express gratitude for their openness in sharing their struggles. Remember, seeking support is not a sign of weakness but a courageous step towards healing.

I would like to highlight some available resources that can provide assistance during this time of need:

(1) [SMHS Mental Health Resources](#)

(2) Visit resourcesforliving.com using: Username: GW-Wellbeing; Password: Yourlife
Call toll-free: (866) 522-8509 or TTY: (888) 879-8274

Additionally, it's important to prioritize our own well-being during times of adversity. Maintaining a healthy work-life balance is crucial, and activities such as exercise, meditation, and spending time with loved ones can be therapeutic and nurturing for the mind and soul.

Let us continue to support each other through these challenging times, drawing strength from our unity and compassion. Together, we can navigate through this darkness.

M. Z. Koubeissi, MD
Professor and Interim Chair
GW Department of Neurology & Rehabilitation Medicine



OUR NEWS



Dr. Elham Bayat started a trial titled "Real-Time Non-Invasive Recognition of Emotional Event During Clinical Examination of Amyotrophic Lateral Sclerosis Patients: A Pilot Study".



Dr. Mohamad Koubeissi was the speaker of the Neurology Grand Rounds, at Montreal Neurological Institute, McGill University, Montreal, Canada. Feb 7, 2024.



Dr. Mohamad Koubeissi's abstract titled 'Thalamic Functional Connectivity Gradients in Children with Temporal Lobe Epilepsy.' will be presented at the Organization for Human Brain Mapping (OHBM) Annual Meeting, taking place in Seoul, Korea from June 23 - June 27, 2024.



Dr. Pritha Ghosh published a paper titled "Sleep related movement disorders in the elderly: a review of recent literature" in *Frontiers*, 27 February 2024.

Researchers at the George Washington University are looking for interested volunteers for a healthy control study to better understand an autoimmune, neuromuscular (disease affecting nerves and muscles) known as Myasthenia Gravis.

Faculty and staff are welcome to participate.

PARTICIPATION INVOLVES:
One-time blood draw (You will have either 4 teaspoons (20 milliliters) or 10 teaspoons (50 milliliters) from an arm vein.
YOU MAY QUALIFY IF YOU:

- Don't have any autoimmune diseases
- No prednisone or corticosteroid use
- No vaccinations within a month



For more information, contact goztosun@mfa.gwu.edu



WHAT'S NEW IN NEUROLOGY

WHAT'S NEW

When taken daily, a new preventive medication can significantly reduce the frequency of migraines.

WHY IT MATTERS

For patients with frequent migraines, a preventive treatment is needed. Finding new preventive treatments for migraines is crucial for enhancing the quality of life for those affected, reducing the economic burden associated with migraines, and addressing the diverse needs of individuals who may not respond well to existing therapies. It also contributes to advancing our understanding of migraine mechanisms, paving the way for more targeted and personalized treatment strategies.

In this clinical trial, researchers investigated the effectiveness, safety, and tolerability of atogepant as a preventive treatment for chronic migraine. The study involved 778 participants across multiple countries who were randomly assigned to receive either atogepant 30 mg twice a day, atogepant 60 mg once a day, or a placebo. The primary measure was the change in the average number of monthly migraine days over a 12-week treatment period. Results showed that both doses of atogepant led to clinically significant reductions in migraine days compared to the placebo. The most common side effects were constipation and nausea, and weight decrease was observed in some participants across all groups. The study concludes that atogepant, at both doses, demonstrated meaningful improvements in chronic migraine symptoms and was well tolerated.

Reference: Pozo-Rosich P, Ailani J, Ashina M, et al. Atogepant for the preventive treatment of chronic migraine (PROGRESS): a randomised, double-blind, placebo-controlled, phase 3 trial. *Lancet*. 2023 Sep 2;402(10404):775-785.

WHAT'S NEW

Recent research provides understanding of the initial indicators of multiple sclerosis (MS), indicating that individuals are nearly twice as prone to encountering mental health challenges in the period preceding the onset of the disease.

WHY IT MATTERS

Recent research from the University of British Columbia challenges the previous belief that multiple sclerosis (MS) becomes clinically apparent only during the first demyelinating event, such as vision problems. The study suggests there is a preceding period where the disease manifests in more subtle ways. MS is an autoimmune disorder where the immune system attacks the protective sheath covering nerve fibers, leading to disruptions in communication with the brain. Diagnosing MS is often challenging due to varied symptoms easily mistaken for other conditions, resulting in a prolonged and uncertain diagnosis journey for patients. The study, examining health records of 6,863 MS patients, found that mental health conditions, including depression and anxiety, were prevalent at nearly twice the rate (28.0%) compared to the general population (14.9%) in the five years before the classical signs of MS appeared. Early recognition of MS could facilitate earlier treatment, potentially slowing disease progression and improving the quality of life for individuals affected.

Reference: Chertcoff AS, Yusuf FLA, Zhu F, Evans C, Fisk JD, Zhao Y, Marrie RA, Tremlett H. Psychiatric Comorbidity During the Prodromal Period in Patients With Multiple Sclerosis. *Neurology*. 2023 Nov 14;101(20):e2026-e2034..



Interview with

Dr. Elham Bayat



THE GEORGE WASHINGTON
UNIVERSITY HOSPITAL



What is ALS?

ALS or Amyotrophic lateral sclerosis is a devastating neurodegenerative disease characterized by progressive muscle weakness without notable sensory loss.

In ALS, the motor neurons begin to deteriorate in specific segments including bulbar, cervical, thoracic or lumbar, leading to difficulties with speech or swallowing, weakness in the arms or legs, shortness of breath, imbalance, falls, cramps, fasciculations, and unintentional weight loss in patients.

The time course can be widely variable from rapid progression, with patients becoming ventilator-dependent in a few months, to slow progression with patients surviving independently beyond 10 years after diagnosis. However, in majority of patients, life expectancy is around 3 to 4 years after the onset of the symptoms.

How do you confirm the diagnosis?

ALS is diagnosed clinically as a progressive, painless weakness in motor function. The disease course is dynamic, emphasizing the significance of a history of progressive weakness. Initial steps involve conducting imaging of neuro axis along with blood tests to rule out conditions mimicking ALS. A crucial component of diagnosis is the EMG, which reveals acute and chronic denervation in different myotomes. In clinical exam, detecting both upper and lower motor neuron signs in the same myotome aids diagnosis, although isolated lower motor neuron signs pose challenges. Experienced neurologists are adept at recognizing ALS based on clinical familiarity.

What is the difference relating to the longevity of the disease compared to the past?

Patients now receive faster diagnoses which allow them to have the opportunity to be enrolled into the clinical trials.

There are four FDA approved medications. Riluzole(1995) was the first drug approved followed by edaravone(2017) and relyvrio(2022). Most recently, tofersen (2023) has been approved to treat ALS patients with a mutation in the SOD1 gene.

The past decade has been an exciting era for gene discovery for ALS. Data and literature suggest amyotrophic lateral sclerosis likely arises from an interplay of multiple genes, environmental factors, and developmental factors

Interview with

Dr. Elham Bayat



What does GW offer to patients with ALS?

We operate a multidisciplinary ALS clinic known as the John J. Kelly clinic, named after my mentor who chaired the neurology department for 20 years. We are accredited by the ALS association with which we maintain close ties and are recognized as a center of excellence. Upon diagnosis, patients are encouraged to join the clinic, where they receive care from a team comprising ALS clinic coordinator, physical therapists, occupational therapists, nutritionists, speech pathologists, psychiatrist, respiratory therapist, ALS association social worker, palliative care specialist and neurologists. Patients and family members attend evaluations every three months to address symptoms and concerns. Additionally, the clinic offers opportunities for patients to participate in clinical research trials.

How long have you been at GW?

I began as a resident in 2002 and later became a neurophysiology fellow under the guidance of Dr. Richardson and Dr. Kelly. In 2006, I assumed responsibility for overseeing the ALS clinic.

How many ALS patients do you have now compared to the past?

When I started, we had approximately 50 to 60 ALS patients. Currently, we have around 100 patients, but sadly, we continue to lose them. Every week, I enroll a new patient, some of whom utilize telehealth, especially during hospice care.

What do you like the most about GW?

GW is where I found a welcoming embrace. Initially, I worked at the FDA and NIH for two years, focusing on clinical trials. Following that, I sought residency training and had interviews at different places. However, GW stood out to me due to its warm and supportive environment for residents. I sensed an opportunity for personal growth here, with faculty who were incredibly supportive. This influenced my decision to choose GW for my residency training and to remain here after my fellowship. GW has become my home, a place where I've flourished amidst supportive peers who consistently believe in me.

Is there anything you would like to say the readers?

Working in medicine, especially with ALS patients, has humbled me. It has underscored the fragility of life and the value of every precious moment. This experience has brought me greater and deeper appreciation for life. I've learned to not sweat the small stuff and to move forward with gratitude, cherishing each moment.

Interview with

Dr. Elham Bayat



January 9, 2024
Adam Ostendorf, MD
Nationwide Children's National, Ohio,
United States
Title: The Future of The Epilepsy
Monitoring Unit

February 13, 2024
Emilio Perruca, MD, PhD, FRCP
University of Melbourne, Australia
Title: Recent Advances and Future
Perspectives in The Pharmacological
Treatment of Epilepsy

March 12, 2024
Fred Lado, MD, PhD
Northwell Health, New York, United
States
Title: TBA

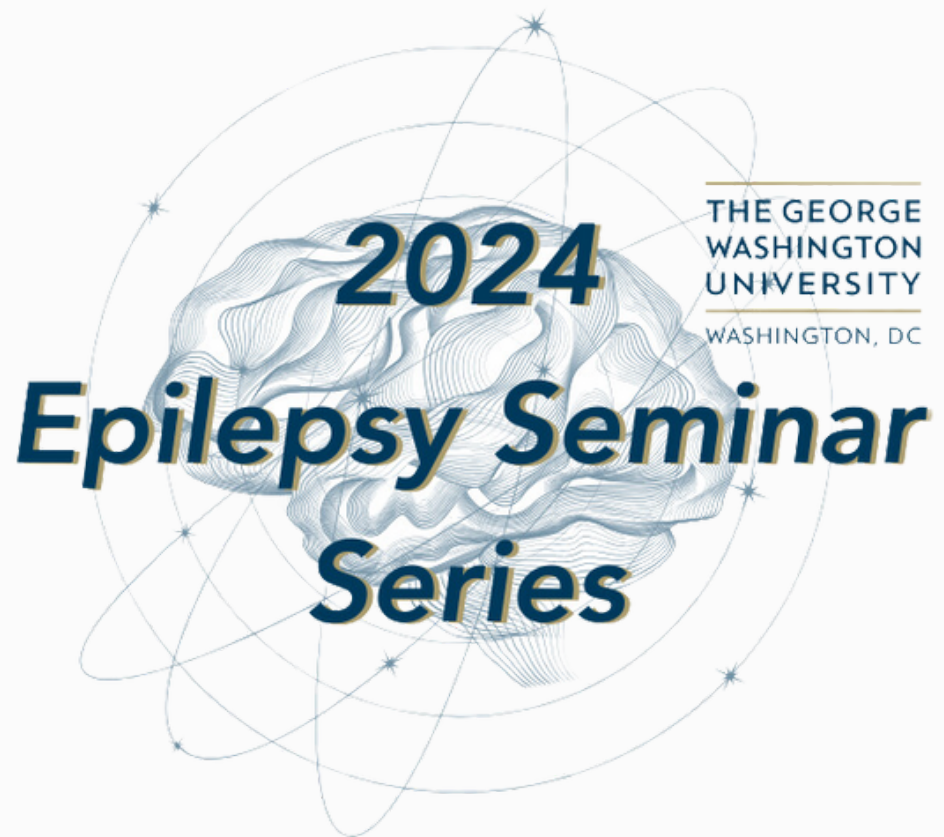
April 9, 2024
William Stacey, MD, PhD
University of Michigan,
United States
Title: Predicting Surgical Outcome With
Network Properties of HFOs

May 14, 2024
Judy Liu, MD, PhD
Brown University, Rhode Island, United
States
Title: Metabolic Pathways in Epilepsy

June 11, 2024
Samir Sheth, MD, PhD
Columbia University, New York,
United States
Title: Network-Minded Epilepsy Surgery

July 9, 2024
Brian Lundstrom, MD, PhD
Mayo Clinic, Minnesota
United States
Title: Low Frequency Brain Stimulation

August 13, 2024
Michael Fox, MD, PhD
Brigham and Women's Hospital,
Massachusetts, United States
Title: Causal Mapping of Epilepsy and Other
Symptoms Onto Human Brain Circuits



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September 17, 2024
Carrie McDonald, PhD
University of California San Diego,
United States
Title: Imaging of Cognitive Networks in
Epilepsy

October 15, 2024
Lori Isom, PhD
University of Michigan,
United States
Title: Discovering Mechanisms of
Developmental and Epileptic Encephalopathy
With SUDEP

November 11, 2024
Jeff Noebels, MD, PhD
Baylor College Of Medicine, Texas,
United States
Title: Glioblastoma Epilepsy: A
Hypersynaptic Ring of Fire

December 17, 2024
Joseph Tracy, PhD, ABPP/CN
Thomas Jefferson University, Pennsylvania,
United States
Title: TBA



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Thank you

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