

SUMMER 2024

# NeuroNEXT

from the Departments of Neurological Sciences & Neurosurgery

## the Song of Summer

“In summer, the song sings itself” (Anonymous). As we bid farewell to our graduates and welcome new faces, each following their unique paths, our academic and clinical programs continue to advance.

Collaborations between the Department of Neurological Sciences (DONS) and The Ohio State University are pioneering new approaches to neurodiversity in neurology practice. The Mind & Brain Health Lab (MBHL) is delving into how real-world sleep patterns affect brain health and the risk of neurological disorders, providing robust measures for clinical care and trials. Additionally, MBHL is exploring the long-term effects of common medications on brain health.

DONS researchers are investigating Altropane (123I), a brain (striatal) SPECT imaging agent for assessing Parkinson’s disease, as an alternative to DaTscan™, which uses loflupane. Nebraska Medicine psychologist Justin Weeks, PhD, is making strides in improving care for individuals with functional neurological symptom disorders.

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Matthew Rizzo, MD, FAAN  
*Frances and Edgar Reynolds Professor  
and Chair  
Department of Neurological Sciences*

*Song of Summer from pg. 1*

Recognizing the importance of data in medical research, the Great Plains IDeA-CTR team is advancing Electronic Health Records (EHR) interoperability for data sharing. Their work was showcased at the Fast Healthcare Interoperability Resources (FHIR) conference on June 5, 2024, in Kearney, Nebraska, coinciding with the Nebraska Rural Health Conference on June 4.



Aviva Abosch, MD, PhD  
*Nancy A. Keegan & Donald R. Voelte, Jr.  
Professor and Chair  
Department of Neurosurgery*

The Neurosurgery department hosted the 42nd Annual J. Jay Keegan Memorial Lecture, where keynote speaker Dr. Linda Liau captivated a standing-room-only audience with her presentation on “Immunotherapy for the Treatment of Glioblastoma.”

At the annual American Academy of Neurology meeting in April 2024, held in Denver, Colorado, DONS residents, fellows, and faculty presented their latest research findings. Notably, Isha Snehal, MBBS, received the Enhanced Resident Leadership Program Award.

Faculty and students continue to garner recognition for their achievements, as detailed in this issue. Congratulations to all!

Enjoy reading about these and other accomplishments in neurosurgery and neurological sciences. As Lao Tzu observed, “A journey of a thousand miles begins with a single step.” Our new graduates and incoming members are well-prepared for the next steps on their journeys. We wish each of you a refreshing summer.



Howard Fox, MD, PhD  
*Senior Associate Dean, Research and  
Development, College of Medicine  
Professor, Department of Neurological  
Sciences*

# Welcome! New Faculty & Staff

## Andrew Brown, MD Assistant Professor

Dr. Brown joins the DONS from the Mayo Clinic in Rochester, Minn. His research interests include safety and outcome research, multidisciplinary and simulation-based medical education, and neurologic emergencies.



### Three interesting facts about me:

- I was previously a tennis coach in high school and college.
- I'm an avid science fiction/fantasy reader.
- I have lived in the midwest my entire life.

## Connor Phipps, PhD Postdoctoral Research Associate

Dr. Phipps is a postdoctoral research associate in the Warren Neuroscience Lab. His current work focuses on describing the intrinsic functional networks of the brain utilizing a connectomics perspective.



### Three interesting facts about me:

- I have done several improv shows.
- I love old movies.
- I recently learned how to make Beef Wellington.

## Nick Kavish, PhD Assistant Professor

Dr. Kavish is a former neuropsychology fellow in the DONS and will join the department as an assistant professor in neuropsychology.



### Three interesting facts about me:

- I love football (soccer) — Premier league, Champions league, MLS, NWSL, etc.
- When I started my graduate psychology training, I expected to become a forensic psychologist.
- Whenever I move to or visit a new city, I enjoy compiling a list of restaurants to try and use working my way through the list as a way to also explore the city.

## Kelly Ann Patrice, MBBS Associate Professor

Dr. Patrice joins the DONS from The University of Arkansas. Her medical interests include stroke in youth and resident education.



### Three interesting facts about me:

- I have four first names.
- I was an optimist sailor in high school.
- If I didn't pursue a career in medicine, I would likely be a certified coffee specialist.

# Welcome! New Residents & Fellows

## NEUROLOGICAL SCIENCES RESIDENTS

### Ola Alshaqi, MD



Dr. Alshaqi is from Damascus, Syria and went to medical school at Damascus University.

**An interesting fact about me:**

- At first, pregnancy seemed like it could spike my stress levels, but playing with my kid turned out to be a serotonin boost and an effective stress regulator!

### Sriharsha Ponna, DO



Dr. Ponna is from Columbus, Ohio and attended medical school at Liberty University.

**Three interesting facts about me:**

- I used to play chess competitively when I was younger.
- I am a huge sports fan.
- I collect watches.

### Sang Hee An, MD



Dr. An is from South Korea and went to medical school at Ewha Woman's University School of Medicine.

**Three interesting facts about me:**

- I am a very athletic person. I enjoy figure skating, Pilates, and training at the gym. I studied Korean traditional dance for 8

years, starting when I was 4. I go skiing in the winter season, and I have also learned Latin dance with my husband, Hanul.

- I have a cat named Nang-Nang. She is a 5-year-old Turkish Angora.
- I dream of becoming an illustrator. My current goal is to publish a storybook.

### Caroline Sane, MD



Dr. Sane is from Winston Salem, North Carolina. She attended medical school at Ross University School of Medicine in Florida

**Three interesting facts about me:**

- I play the saxophone.
- I have been kayaking in a bay of bioluminescent algae.
- I am addicted to coffee and sparkling water.

### Hanul Lee, MD



Dr. Lee is from Seoul, South Korea. He went to medical school at Sungkyunkwan University School of Medicine

**Three interesting facts about me:**

- I love growing plants, especially moss.
- I once won first place in a Latin dance competition with my wife, Dr. Sang Hee An.

- I enjoy listening to music and always find myself searching for new and interesting tracks.

### Emme Schmidt, MD



Dr. Schmidt is from Custer, S.D. She graduated from UNMC.

**Three interesting facts about me:**

- I quilt and cross stitch.
- I enjoy fly fishing and tying my own flies.
- In my sixth-grade autobiography, I wrote that I wanted to be a neurologist.

## NEUROLOGICAL SCIENCES FELLOWS

### Sarah Kendroud, DO



Dr. Kendroud's hometown is San Ramon, Calif.

**Three interesting facts about me:**

- I love to travel and plan to visit all 50 states.
- I like to learn languages and plan on learning sign language.
- I bring my own silverware to work to try to be more environmentally conscious.

### Nada Ahmed, MD



Dr. Ahmed's hometown is Cumberland, R.I.

**Three interesting facts about me:**

- I was born in Germany.
- I had a chance to kayak in the Pacific Ocean and got to see a baby whale swim right under us.
- I am enthusiastic about dog training. My poodle, Charlie, has learned some interesting tricks like cleaning up his toys on command.

## NEUROSURGERY RESIDENTS

### Dr. Kyle McCloskey



Drexel University College of Medicine

**Hometown:**  
Plymouth Meeting, Penn.

### Dr. Thomas Nilles-Melchert



Creighton University  
School of Medicine  
Omaha, Nebraska

**Hometown:**  
Wilmar, Minn.

# *Congratulations!* Faculty promotions to Associate Professors



Pamela May-Weeks, PhD



Bethany Lowndes, PhD



Mara Seier, MD



Kelly Stauch, PhD



# Neurosurgery hosted **42<sup>nd</sup> Annual J. Jay Keegan Memorial Lecture**

On Friday, April 19, the UNMC Department of Neurosurgery hosted the 42nd Annual J. Jay Keegan Memorial Lecture and Dinner.

This year's Keegan Lecturer was Linda Liau, MD, PhD, MBA, a world-renowned neurosurgeon-scientist. Dr. Liau is Chair of Neurosurgery at the David Geffen School of Medicine, UCLA Health. Her seminal work on the treatment of primary malignant brain tumors has garnered decades of National Cancer Institute (NCI) and industry funding and has been translated into multiple clinical trials.

Dr. Liau met with the UNMC neurosurgery residents, sharing her extensive

knowledge about U.S. academic neurosurgery, and specifically about the subspecialty of surgical neuro-oncology. The residents benefited greatly from her expertise, gaining a deeper understanding of the complexities, future of the field, and the innovative approaches being employed in contemporary practice.

The highlight of the day was Dr. Liau's captivating keynote presentation "Immunotherapy for the Treatment of Glioblastoma." Held in the Linder Reading

Room, Dr. Liau drew a standing-room-only audience from multiple departments within the academic medical center. Her presence and the knowledge she imparted has left a lasting impression on all who attended, underscoring the significance of the Annual J. Jay Keegan Memorial Lecture as a cornerstone event for the Department of Neurosurgery.

# All About Research

## UNMC and The Ohio State University Pioneer a New Approach to Operationalizing Neurodiversity in Neurology Practice

by Matt Rizzo, MD

Abraham Graber, PhD, a philosopher from The Ohio State University, and Matthew Rizzo, MD, DONS Chair, have co-authored an influential article, Tourette Syndrome: A Catalyst for Operationalizing Neurodiversity (*Neurology*. 2024 Jul 23;103(2):e209572; PMID 38870461), that explores the neurodiversity paradigm.

This interdisciplinary effort merges neurology, ethics, and philosophy to challenge traditional perceptions of neurological conditions.

Their work makes the case for viewing TS, along with autism and other conditions, not merely as pathologies but as forms of human diversity, akin to variations in gender or sexual orientation. By incorporating patient perspectives, acknowledging disability pride, and recognizing the unique strengths of individuals with these conditions, this approach aims to enhance patient care and reduce stigma. The collaboration highlights the potential for ethical and philosophical frameworks to inform and transform medical practice, fostering a more inclusive and empathetic healthcare environment.

Moreover, the integration of artificial intelligence (AI) into this paradigm offers unprecedented opportunities for precision neurology. AI technology can provide fine-grained analysis of brain-behavior-environment interactions, enabling neurologists to tailor interventions more effectively to individual patient profiles and needs. AI can help better define the boundaries between neurodiversity and disorder by identifying patterns and variations that distinguish functional strengths from impairments. This capability allows for a more nuanced understanding of neurological conditions, ensuring that interventions are appropriately targeted and respectful of patients' identities.

## GE Healthcare Altropane Study

Mara Seier, MD, and the clinical research team in collaboration with nuclear medicine have completed the scanning of two patients for the GE Healthcare Altropane study. The Altropane (<sup>123</sup>I) Injection is being developed by GE Healthcare as a striatal SPECT imaging agent that is an alternative to DaTscan™ using Ioflupane.

An important potential advantage of Altropane over DaTscan™ is the rapid uptake of the molecule resulting in significantly decreased time from injection to imaging (15 minutes with Altropane vs. 3 to 6 hours with DaTscan™), and Altropane does not require stopping psychiatric medications that patients may be taking.



# Mind & Brain Health Lab analyzes real-world sleep along with other projects

The Mind & Brain Health Lab (MBHL) is refining real-world sleep analysis to better understand sleep patterns and their impact on brain health in ongoing studies of older persons.

Jun Ha Chang, PhD, and team (American Neurological Association, 2024) are determining how long we need to monitor sleep to gain reliable data on sleep duration and quality. Smartwatches are employed to track sleep patterns and activity metrics in participants' daily lives. The lab also uses sensors in cars to gather data on how people move and act in real-world settings.

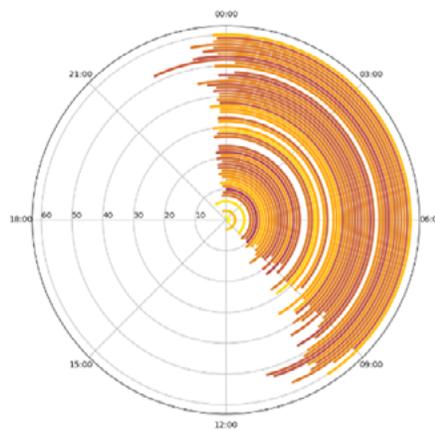
Advanced data analytics are applied to the sensor data collected from these devices to gain insights into sleep and behavior patterns. Their latest findings ("counting z's!") show that people with Mild Cognitive Impairment (MCI) need at least nine days of monitoring to capture accurate sleep data, while those who are aging typically need only four days. This discovery highlights the practical importance of customized monitoring for different groups, paving the way for more precise and effective sleep interventions. The goal is to enhance cognitive health and overall well-being by improving sleep assessment methods and developing better sleep health strategies.

In other research, the MBHL found significant differences in medication use between people with MCI or mild Alzheimer's Disease (AD) and those without cognitive issues. Almost all participants (95.9%) were prescribed at least one medication, with 56.3% taking five or more medications (polypharmacy), a rate much higher than previous reports (38.5% from 2009 to 2016).

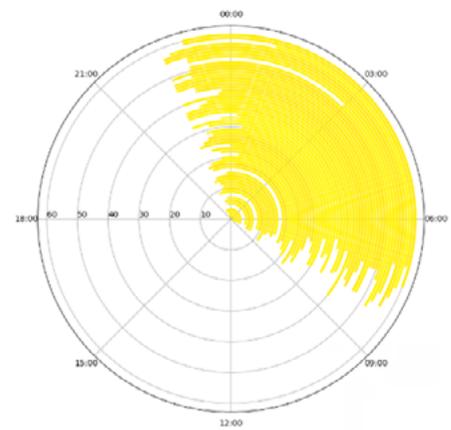
After one year, 20% of participants showed cognitive decline, with 38% of them involved in polypharmacy, suggesting a possible link between multiple medications and cognitive decline. We also noticed that 65.6% of cognitively impaired participants were taking five or more medications, compared to 55.7% of those without cognitive impairment. Common medications included atorvastatin and

levothyroxine, while donepezil, specific to AD treatment, was not included.

Cognitively impaired participants often used combinations of cardiovascular agents and antidepressants, and antidepressants with anxiolytics, more frequently than those without cognitive issues. These findings highlight the need for long-term studies to understand how different medication profiles may affect the development and progression of AD.



Left Image



Right Image

*Images: The circular plots present a clear visual comparison of sleep efficiency over a 60-day period for two older subjects: one with Mild Cognitive Impairment (MCI) on the left, and another with typical aging on the right. Each plot consists of 60 concentric circles, representing consecutive days of sleep data. The innermost circle represents Day 1, with subsequent days radiating outward. The circumference of each circle represents a 24-hour cycle: 00:00 (midnight) is positioned at the top, 12:00 (noon) is at the bottom. A color gradient is used to indicate sleep efficiency. Yellow hues represent higher sleep efficiency, while darker colors indicate lower sleep efficiency. Awake hours during the day are color free. The MCI subject's plot on the left displays overall lower sleep efficiency, exhibits greater variability in sleep patterns across days, and shows more fragmented sleep, indicated by irregular color patterns. In contrast, the plot for the typical aging subject on the right demonstrates higher overall sleep efficiency, presents more consistent sleep patterns across the 60-day period, and displays more consolidated sleep, shown by more uniform color blocks.*

# Awards & Publications



Abi Heller-Wight

## Warren Neuroscience Lab member receives F30 Award

The NIH National Institute on Aging (NIA) offers Kirschstein National Research Service Award Individual Predoctoral MD/PhD Fellowships (F30 NSRAs) to support promising doctoral candidates to perform dissertation research and training for an MD/PhD degree in a scientific health-related field relevant to the mission of the NIA, with specific funds dedicated to Alzheimer's disease and related dementias. Abi Heller-Wight, an MD/PhD Scholar at UNMC, was awarded a 5-year F30 NSRA from the NIA for her project, "Measuring neurodevelopmental effects of genetic risk for Alzheimer's disease via cross-sectional study of brain, cognitive, and physical fitness variables in periadolescent children." Alzheimer's Disease (AD) is typically considered a disease of older adulthood; however, the influence of modifiable and non-modifiable risk

factors, beginning in childhood, significantly influence AD development later in life.

Through a novel, multimodal approach, Heller-Wight's project aims to collect data related to brain development (cognitive, brain imaging), modifiable risk factors (physical activity, cardiorespiratory fitness) and non-modifiable risk factors (APOE- $\epsilon$ 4 allele status) in order to understand early-life vulnerabilities that effect AD risk. Characterizing the development of AD-vulnerable brain systems, and how these risk factors influence them, could lead to new insights regarding early-life risk stratification and disease prevention. Abi is a PhD candidate in the MSIA Patient Oriented Research doctoral program under the supervision of David E. Warren, PhD, in the Department of Neurological Sciences.



Padmashri Ragunathan, PhD

## Padmashri Ragunathan, PhD, awarded funding for Fetal Alcohol Spectrum Disorders

Dr. Ragunathan was awarded an R01 grant titled "Cellular mechanisms of auditory processing deficits in a mouse model of Fetal Alcohol Spectrum Disorders" from the National Institutes of Health/ National Institute on Alcohol Abuse and Alcoholism. The study will examine the effects of prenatal alcohol exposure at low levels sustained across gestation on auditory processing and identify auditory structures and cellular correlates that contribute to the auditory impairments. The goal of this research is to model the effects of prenatal alcohol exposure in mice using a naturalistic model of voluntary maternal alcohol consumption to provide foundational insights into neural mechanisms that mediate auditory processing deficits and

help identify translation-relevant neural correlates. Understanding the cellular correlates that contribute to auditory processing deficits in this model is important since prenatal alcohol exposure at low levels recapitulates a prevalent exposure in humans.

Dr. Ragunathan's research focuses on examining alcohol-induced alterations in synaptic plasticity, auditory processing, and behavior in prenatal alcohol exposure mouse models of fetal alcohol spectrum disorders (FASD). She was awarded an Edna Ittner Pediatric Research Support Grant to examine the effects of binge-like prenatal alcohol exposure on offspring auditory function.

# The Great Plains IDeA-CTR advances Electronic Health Records for research

by Matt Rizzo, MD, and Jerrod Anzalone, PhD

The Great Plains IDeA-CTR is nearing completion of a significant project to enhance clinical and research infrastructure in rural Nebraska. This 10-month, \$2.3 million initiative, funded by the NIH National Institute of General Medical Sciences, is a collaborative effort between the Great Plains IDeA-CTR and the Nebraska Rural Health Association (NeRHA), led by Jed Hansen, PhD, APRN, FNP-C, Executive Director, Nebraska Rural Health Association. The project focuses on implementing Fast Healthcare Interoperability Resources (FHIR), a data-sharing standard for electronic health data, to improve data interoperability, patient care, and research readiness in rural community hospitals and clinics.

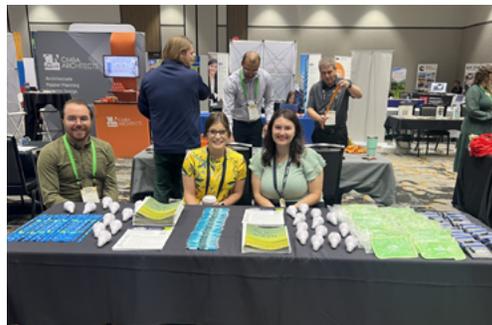
Key achievements and milestones include engagement with 23 rural sites during the initial phase, successful execution of data use agreements to facilitate clinical data movement across the network, and hosting a FHIR Summit in Kearney, Neb. in June 2024, attended by

more than 80 members of the rural health community. This summit was held in conjunction with the 2024 Nebraska Rural Health Conference to enhance statewide healthcare data capability and literacy.

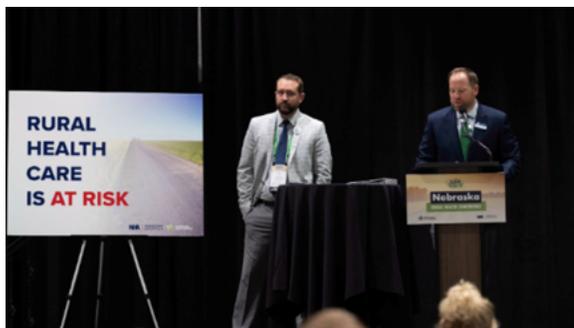
The FHIR project has made significant strides in advancing the use of electronic health records (EHR) for research across Nebraska by expanding research capacity, supporting FHIR implementation at rural sites, and enhancing data literacy across the network. It develops data-sharing cloud infrastructure for clinical and translational efforts, and improves support for observational studies, pragmatic research, and clinical trial recruitment through enhanced information sharing.

Importantly, this initiative also ensures that rural health clinics comply with the 21st Century Cures Act, which mandates improved patient access to electronic health records and enhanced data interoperability.

This project aligns with the Great Plains IDeA-CTR's goals of creating and sustaining infrastructure for clinical and translational research, developing successful CTR investigators, and building upon existing regional partnerships to improve health outcomes. It represents a significant step forward in addressing the unique healthcare challenges faced by rural and underserved populations in the Great Plains region.



Great Plains IDeA-CTR booth at the 2024 Nebraska Rural Health Conference and FHIR Summit. From UNMC, GP IDeA-CTR (left to right): Jerrod Anzalone, PhD, Emily Frankel, MPH, and Elizabeth Reisher, MS



Opening remarks at the 2024 Nebraska Rural Health Conference. From left to right: Jed Hansen, PhD, APRN (Nebraska Rural Health Association); Jeremy Nordquist, MPA (Nebraska Hospital Association).



Panel discussion on FHIR in Action. From left to right, James McClay, MD, MS (University of Missouri); David Edwards, MBA (Twelve Clans Unity Hospital); Brady Beecham, MD (Gothenburg Health); Rob Bloom, MBA (Wintergreen); Nicole Thorell, RN, MSN (Wintergreen)

# Nebraska Medicine psychologist provides ongoing treatments for Functional Neurological Symptom Disorder patients

Justin Weeks, PhD, is a clinical psychologist at Nebraska Medicine and has been treating patients with Functional Neurological Symptom Disorder (FND) for years using cognitive-behavioral therapy (CBT).

For the past two years, Dr. Weeks has conducted a CBT group for patients that involves two therapy sessions, one week apart. 115 patients have initiated the group. Retention is excellent, with 102 completers (88.7%) who finished both sessions.

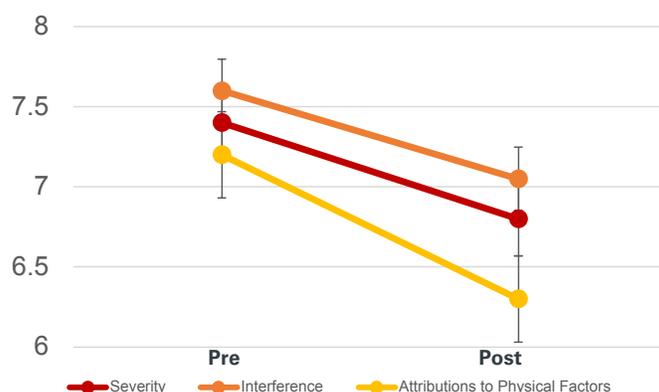
Therapeutic results have been encouraging. Reductions in *overall FND symptom severity*, *overall FND symptom interference*, and *attributions of FND symptoms to physical (as opposed to psychological) factors* (each rated from 0-10 [10 = most]) are all statistically significant from pre- to post-treatment, and all of these effect sizes are large. The figure demonstrates these findings.

In contrast, and as expected, *attributions of FND symptoms to psychological factors* (also rated from 0-10 [10 = most]) significantly increased from pre- to post-treatment, and this was the largest effect size of all.

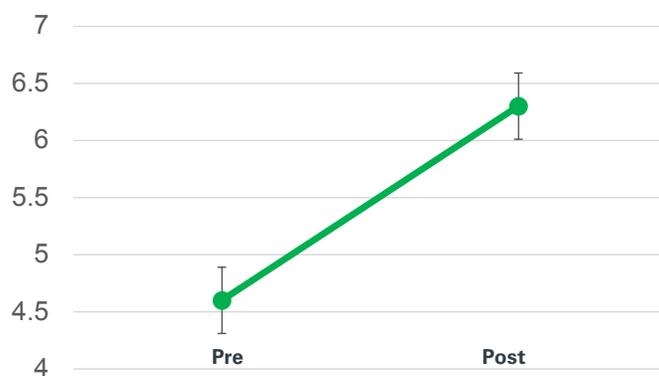
Roughly half (47.8%) of the patients who have taken part have been referred for FND with abnormal movements; an additional 40.0% were referred for psychogenic nonepileptic seizures; and the remaining 12.2% were referred for various/mixed FND symptoms.

Dr. Weeks is pleased to be able to offer a helpful and highly accessible resource in Omaha for patients diagnosed with FND.

FND Symptom Severity, FND Symptom Interference, and Attributions of FND to Physical Factors



Attributions of FND to Psychological Factors



Isha Snehal, MBBS

## Isha Snehal, MBBS, received the Enhanced Resident Leadership Program Award at AAN Conference

Dr. Snehal was selected among ten other Adult Neurology residents. [www.aan.com/education/enhanced-resident-leadership](http://www.aan.com/education/enhanced-resident-leadership)

# AAN Annual Conference Recap

DONS residents, fellows and faculty members attended the American Academy of Neurology (AAN) Annual Meeting in April in Denver, Colo. Participants were introduced to the latest neurology research data and updates. Movement Disorders Fellowship Program Director Dr. Erin Smith and Residency Director Dr. Amy Hellman presented informational posters on our programs, and we had numerous presentations from our residents, fellows and faculty throughout the week-long event.



*Dr. Erin Smith*



*Dr. Amy Hellman*



*Drs. Kumari, Raja and Murman during a poster presentation at the conference.*



*Drs. Jayagopal, Mathew and Hellman take a nature hike.*

The DONS also held an alumni reception for past, present and future faculty recruits. Guests convened in downtown Denver for an evening of libation and fellowship.



# Education Corner

## Residency Chief of Operations, Courtney Venegas, MD, receives Provider of the Quarter

Dr. Venegas was chosen by the nurses and staff of the 6th floor Neurosciences unit as the Provider of the Quarter.



The nurses and staff wanted to recognize her for her outstanding communication skills, attentiveness, intelligence, and collaborative approach to patient care. "Dr. Venegas is a rock star!" said one of the nurses.

She received a certificate that is displayed along with her photo in the main corridor of the 6 Neuro floor.

## Congratulations Graduates!

DONS residents, fellows, friends, and families gathered at Champions Run in Omaha on Friday, June 7, to celebrate their class of 2024! The residency program had five graduates and the fellowship program included six graduates. We wish them all the best!



Graduating residents from left to right: Drs. Mohammad Aladawi, Leith Hobbs, Isha Snehal, Dmitry Balian and Mohamed Elfil

# Congratulations

## 2024 Residency Graduates

### Dr. Mohammad Aladawi



Dr. Aladawi will pursue a Vascular Neurology Fellowship at the University of Alabama.

Read Dr. Aladawi's farewell letter at [unmc.edu/neurologicalsciences/education/residency/resident-farewells](https://unmc.edu/neurologicalsciences/education/residency/resident-farewells).

### Dr. Dmitry Balian



Dr. Balian is joining UNMC as Neuro-Ophthalmology faculty.

### Dr. Mohamed Elfil



Dr. Elfil is pursuing a Vascular Neurology Fellowship at the University of Miami.

Read Dr. Elfil's farewell letter at [unmc.edu/neurologicalsciences/education/residency/resident-farewells](https://unmc.edu/neurologicalsciences/education/residency/resident-farewells).

### Dr. Leith Hobbs



Dr. Hobbs is pursuing a Pain Medicine Fellowship at UNMC.

### Dr. Isha Snehal



Dr. Snehal is pursuing an Epilepsy Fellowship at Mayo Clinic.

Read Dr. Snehal's farewell letter at [unmc.edu/neurologicalsciences/education/residency/resident-farewells](https://unmc.edu/neurologicalsciences/education/residency/resident-farewells).

# Graduates!!

## 2024 Fellowship Graduates

**Dr. Andrew Creed**



Dr. Creed will be an Assistant Professor at Kansas University.

**Dr. Jennifer Shaw**



Dr. Shaw will join UNMC as a Neurohospitalist.

**Dr. Chelsie Thompson**



Dr. Thompson will join a private practice in Littleton, Colo.

**Dr. Vekash Raja**



Dr. Raja will obtain a Neurocritical Care Fellowship at Mercy Hospital in Buffalo, N.Y.

**Dr. Salman Assad**



Dr. Assad will join as a faculty member at the University of Kentucky Medical School.

**Dr. Nick Kavish**

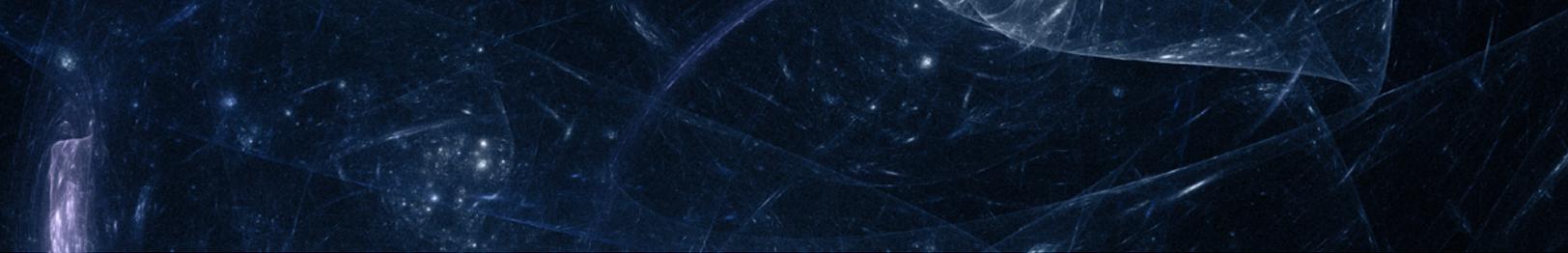


Dr. Kavish will be an Assistant Professor in Neuropsychology at UNMC.

**Dr. Erin Dennis**



Dr. Dennis will work in Outpatient Epilepsy and General Neurology at Bryan Hospital in Lincoln, Neb.

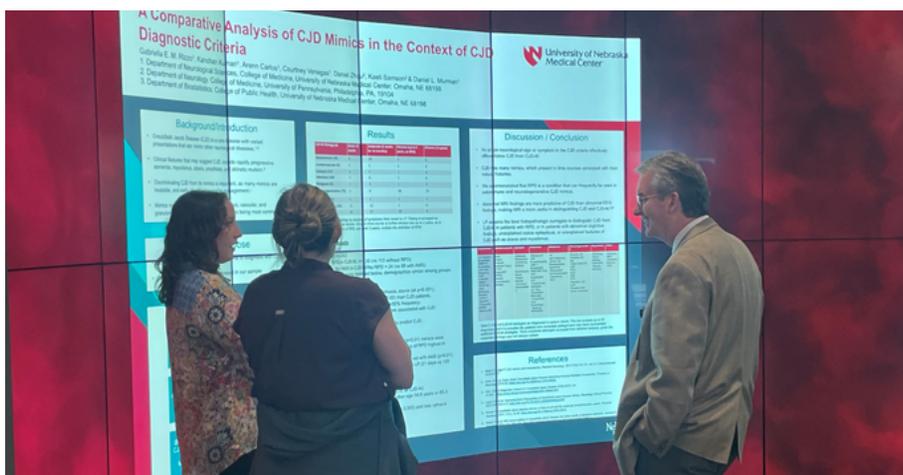
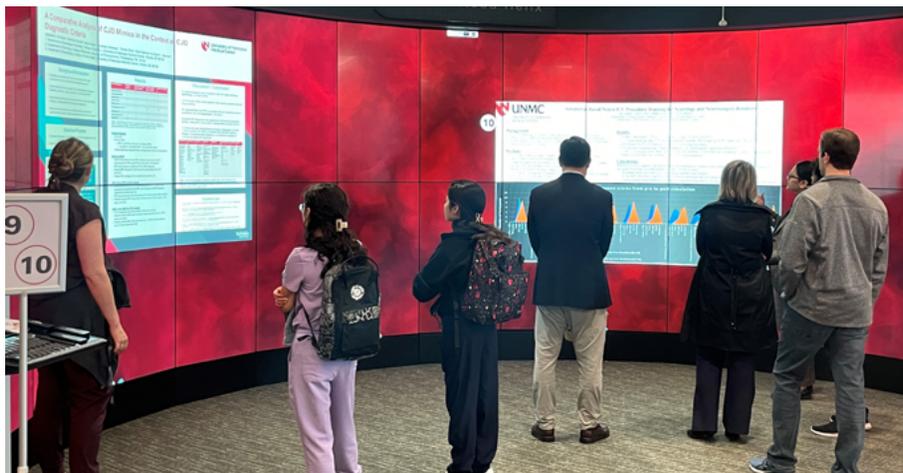


# Resident Research Day

The 8th annual Resident Research Day took place on May 2 in the Davis Global Center iExcel building on the UNMC campus. The event was the second happening in an all-digital format. There were 11 poster presentations and three graduate podium presentations from PGY-4 residents.

Awards from the event were announced at the DONS graduation ceremony for best poster presentation (Nithin Kurra, MD) and best podium presentation (Isha Snehal, MBBS).

Congratulations to all our presenters!





# Multiple Sclerosis At Home Access Program

## nurse helps patient affected by Nebraska tornado

When Renee Stewart, APRN-NP, discovered that a Multiple Sclerosis At Home Access Program (MAHA) patient was affected by the tornado that hit Elkhorn on April 26, 2024, she took charge and gathered colleagues and other family and friends to help clean up the mess.

Renee is an APRN-NP in the DONS at Nebraska Medicine where she serves as leader of the MAHA program. She has a passion for helping those with MS and other demyelinating diseases living with advanced disability. The MAHA program improves access to care including the implementation of house calls, facility visits, telemedicine and a trans-disciplinary clinic. The MAHA program has served over 150 individuals since its inception in 2013.



Renee Stewart, APRN-NP

**Read the official story from KFVS12 here:**

[www.kfvs12.com/2024/04/29/quadruplegic-mans-home-destroyed-by-tornado-wife-son-lie-top-him-protect-him](http://www.kfvs12.com/2024/04/29/quadruplegic-mans-home-destroyed-by-tornado-wife-son-lie-top-him-protect-him)



# Peng Zhong, PhD, named Kinman Oldfield Scholar

by UNMC Strategic Communications

Peng Zhong, PhD, an assistant professor in the DONS, has been named UNMC's 2024 Kinman Oldfield Scholar for his research aiming to unravel the neural connections between sleep disturbance and neurodegenerative disorders.



Peng Zhong, PhD

Dr. Zhong received the Kinman Oldfield award at a ceremony on April 24 in the Wigton Heritage Center Atrium.

The annual award supports the efforts of junior faculty and students for research in Alzheimer's disease and in investigating the cause, evaluation, and treatment of late-life cognitive disorders. It was established by Colonel Barney Oldfield to honor of his wife, Vada Kinman Oldfield, who suffered from Alzheimer's disease.

Dr. Zhong's research aims to test a novel strategy for treating Alzheimer's disease-associated sleep disturbances and mitigating disease progression. His goal is to determine whether stabilizing

wakefulness in a research model, via activation of a newly identified wake-promoting neuron, can improve the disturbed sleep and cognitive deficits.

Matthew Rizzo, MD, Chair of the DONS, said the department is proud that Dr. Zhong is receiving the award in recognition of his important work on the brain mechanisms of sleep.

"Sleep impairment is a common issue in many mind and brain disorders, including anxiety, depression, schizophrenia, Parkinson's disease, Alzheimer's disease and related conditions. Dr. Zhong's research aims to uncover the underlying brain mechanisms driving sleep disturbances in these disorders, which could lead to the development of new treatments and cures — precisely the kind of work that Vada Kinman Oldfield and Colonel Barney Oldfield sought to support through this prestigious scholar award," said Dr. Rizzo.

Dr. Zhong said sleep and circadian disruption are estimated to affect as many as 66% of Alzheimer's patients, contributing to disease progression. Improving the quality of both sleep and wakefulness could potentially mitigate the effects of a

toxic protein deposition, he said. However, he said, there have been few systematic attempts to apply this strategy for treating Alzheimer's disease.

"Many thanks to the Kinman Oldfield Family Foundation for motivating us and encouraging us with the support of this line of research," Dr. Zhong said. "This award will enable us to develop sleep-based therapies for Alzheimer's disease."

In addition to the Kinman Oldfield Award, the following students received Nancy and Ronald Reagan Scholarship Awards and were at the April 24 ceremony: Shaurav Bhattarai, Rakhi Chowdhury, Emma Foster, Rana Kadry, Mohit Kumar, Megan Paustian, Shefali Srivastava, Dobariya Sutar, Hanyu Xiao

# Save the Date! Upcoming Events

**Wednesday, October 8**

8 a.m. – 3 p.m. at the Scott Conference Center

## Lewy Body Dementia Care Partner Conference

A Conference for LBD care partners



**Wednesday, November 13**

8 a.m. – 2 p.m. at the Embassy Suites La Vista

## Parkinson's Disease in 2024

A Conference for Parkinsons patients and their families/care partners



## Philanthropy

Mental and neurological disorders have never been more prevalent. Life-changing disorders including epilepsy, stroke, Alzheimer's Disease, Parkinson's Disease, multiple sclerosis and brain injuries touch the lives of far too many.

We are committed to pioneering new therapies for the future through research and by educating the next generation of experts. Our team of internationally-recognized physicians and researchers is dedicated to saving lives and reducing the terrible impact of neurological disease on our patients, families and community.

Private donations play a critical role in advancing our state-of-the-art research, treatment, education and patient care programs. Whether you would like to support education or research in a particular disease area, your charitable gift can be directed to a project or topic that is most meaningful to you.

Gifts can be directed to any fund of your choice on the foundation website, or you can talk to Emily Tiensvold with the University of Nebraska Foundation about a donation to your area of special interest.

Join us today as a partner in hope. With a philanthropic investment, UNMC and Nebraska Medicine will create a cornerstone of neurological care. Thank you for your support!



Emily Tiensvold,  
NU Foundation



**University of Nebraska Medical Center**  
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If you have any news or upcoming events that you would like featured in the next edition of the *NeuroNExT UNMC* newsletter, please send the information to [sallie.weathers@unmc.edu](mailto:sallie.weathers@unmc.edu)

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