

SPRING 2026 EDITION

FSU | INSTITUTE FOR
SUCCESSFUL LONGEVITY
OFFICE OF THE PROVOST



NEWSLETTER



ISL IN ACTION

DIRECTOR'S MESSAGE

Dear ISL Affiliates, Colleagues, and Community Partners,

It is my great pleasure to welcome you to the 2025–2026 edition of the Institute for Successful Longevity (ISL) Newsletter. This academic year has been one of remarkable growth, innovation, and collaboration across our ISL community.

From August 2025 through May 2026, ISL has continued to strengthen its role as a leading interdisciplinary hub for aging research at Florida State University. Our faculty affiliates, students, and partners have made significant contributions spanning clinical research, advanced technologies, and basic science—advancing our shared mission to promote healthy aging across the lifespan.

One of the highlights of this year was the continued momentum of our ISL Working Groups—Advanced Technology, Clinical Research, and Basic Science—which have fostered new collaborations, identified strategic research priorities, and initiated discussions that will shape future grant proposals and scholarly activities. These groups have become an essential engine for interdisciplinary engagement within ISL.

We were also honored to host distinguished scholars through our ISL Lecture Series, including a highly impactful visit by Dr. Kenneth Langa from the University of Michigan, whose presentations and community engagement activities brought valuable insights into dementia, aging, and public health. In addition, our Brown Bag series and invited talks have provided regular opportunities for knowledge exchange and networking among affiliates.

Our commitment to student development and mentorship was clearly demonstrated at the 2026 ISL Student Poster Day, where undergraduate, graduate, and postdoctoral researchers showcased their innovative aging research. The addition of a career panel this year further enriched the experience, offering valuable guidance and inspiration to trainees pursuing careers in aging.

ISL has also continued to expand its community engagement efforts, participating in local events and strengthening partnerships with community organizations. These activities are central to our mission to translate research into real-world impact and foster bidirectional engagement with older adults and caregivers in our region.

In terms of research growth, ISL-affiliated faculty have secured new funding, published impactful scholarship, and advanced innovative projects in areas such as artificial intelligence in healthcare, cognitive aging, and interventions to improve the quality of life for older adults. These accomplishments reflect the strength and diversity of our interdisciplinary community. We have selected four promising multidisciplinary teams to receive this year's ISL Planning Grants.

Finally, I would like to extend my sincere gratitude to our leadership team, faculty affiliates, students, and staff for their dedication and contributions. I would also like to recognize Dr. Lynn Panton for her outstanding service as Associate Director of ISL and wish her all the best in her retirement. Her contributions have been instrumental to the growth and success of the institute. As we look ahead, we remain committed to expanding ISL's research capacity, strengthening collaborations, and enhancing our impact at local, national, and global levels. I am excited about the opportunities that lie ahead and grateful to be part of such a vibrant and dedicated community.

Thank you for your continued support of ISL!

Warm regards,

Zhe He, PhD, FIAHSI, FAMIA

Director, Institute for Successful Longevity
Professor, School of Information
Florida State University



CELEBRATING DR. LYNN PANTON'S CONTRIBUTIONS TO ISL

Reflecting on her time with ISL, Dr. Panton shared:

"I want to take this opportunity to wish everyone a wonderful end to the semester and a restful summer. I also want to express how much I have enjoyed working with everyone who has been a part of the Institute of Successful Longevity. I will be retiring in May and stepping down as the Associate Director of the Institute. It has been such a privilege for me to work with Dr. Neil Charness and Dr. Zhe He. The Institute for Successful Longevity has really grown with so many exciting new initiatives and programs; so much has been accomplished over the years. I hope to see many of you at future events with our community partners. Wishing you all the best in your future endeavors."

As the Spring semester comes to a close, the Institute for Successful Longevity (ISL) marks an important transition as Dr. Lynn Panton retires this May and steps down from her role as Associate Director. Dr. Panton has been a valued leader and dedicated supporter of ISL, serving as Associate Director since January 2024. During this time, she played a key role in advancing many of the Institute's core activities. Her contributions have been especially impactful in supporting ISL's outreach efforts, strengthening the Planning Grant program, and helping organize signature events such as the ISL Student Poster Day. Her commitment, reliability, and collaborative spirit have helped foster a strong and engaged ISL community.

Beyond her recent leadership role, Dr. Panton has been an integral part of ISL's growth over the years. She has contributed to the Institute's expanding portfolio of programs and partnerships, helping position ISL as a vibrant, interdisciplinary hub for research and engagement in aging and longevity.

We are deeply grateful for Dr. Panton's many contributions and her lasting impact on ISL. Her dedication to promoting successful aging and supporting students, faculty, and community initiatives will continue to resonate within the Institute.

Please join us in thanking Dr. Panton for her service and in wishing her a joyful, healthy, and fulfilling retirement. We look forward to staying connected and seeing her at future ISL events.

Zhe He, PhD, FIAHSI, FAMIA

Director, Institute for Successful Longevity
Professor, School of Information





THE ISL's MISSION

The ISL advances research on how to live longer, healthier, and more engaged lives. Taking a multidisciplinary approach, the Institute explores the biological, cognitive, social, and economic aspects of aging.

Our mission is to understand the mechanisms of age-related decline, develop holistic interventions to promote well-being in older adults, and share this knowledge with communities, caregivers, and policymakers to support successful aging for all. We view aging not as a problem, but as a natural and vital stage of life. Through cutting-edge research and community partnerships, we aim to transform how society supports and values older adults. Visit our website [here](#).

JOIN THE VOLUNTEER REGISTRY

The ISL needs research volunteers to help us achieve our mission of improving health and well-being for Florida's aging population.

You can be paid to advance the science of successful longevity, helping your friends and family achieve longer, more productive, and enjoyable lives. You will be able to choose what studies you participate in.

To volunteer, visit <https://isl.fsu.edu/registry/volunteer>, or call **850-644-8571** or send an email message to isl@fsu.edu.



OUTREACH ASSISTANT VICTORIA VALKO



Congratulations to Victoria Valko, ISL Outreach and Research Coordination Assistant, on her graduation from Florida State University!

Victoria's dedication, professionalism, and passion for advancing public health and aging research have made a meaningful impact on the ISL community. We are grateful for all of her contributions and wish her continued success as she begins this next chapter at the University of Chicago Booth School of Business.

ISL'S NEW OUTREACH INTERNS



Leah Campbell

Leah is an undergraduate student studying Dietetics. Her experience includes community outreach and she is interested in accessible nutrition and public education.



Mitchell Wagner

Mitchell is an undergraduate student studying Political Science. His interests lie at the intersection of public health policy and healthcare.

SOCIAL MEDIA INITIATIVES



Sharing Research and Stories That Matter

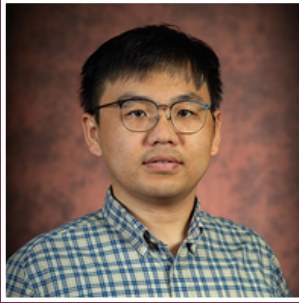
Follow and engage with the Institute for Successful Longevity through our Linktree and social media platforms to stay updated on aging research, faculty and student achievements, new publications, grant announcements, interviews, and institute events while helping grow our community and expand awareness of healthy aging initiatives.

VOICES OF LONGEVITY | MEET THE RESEARCHERS

Voices of Longevity is a short-form podcast by the ISL, hosted by Outreach Assistant Victoria Valko and Outreach Intern Leah Campbell. Each episode features quick, compelling conversations with ISL researchers about the science driving longer, healthier lives. Interested in being featured? Email us at isl@fsu.edu. Episodes posted on [ISL's YouTube channel](#) and on [ISL's Spotify](#).



ISL'S NEW FACULTY AFFILIATES



Dr. Xiulin Xie

Department of Statistics



Dr. Nathan Richbourg

Department of Chemical and
Biomedical Engineering



Dr. Jacob Brown

Department of Health,
Nutrition, and Food Sciences



Dr. Molly Hermiller

Department of Psychology



Dr. Heidi Kinsell

College of Medicine

ISL WELCOMES POSTDOCTORAL RESEARCH FELLOW DR. DANIEL LEME

Dr. Leme brings a rich background in gerontology, rehabilitation, and public health, with international experience spanning Brazil and Canada. His research focuses on frailty, aging, and improving health outcomes for older adults in both hospital and community settings. We look forward to the valuable insights and expertise he brings to ISL's mission.



READ MORE ON OUR WEBSITE AT [ISL.FSU.EDU](https://www.isl.fsu.edu)

ISL WORKING GROUP UPDATES

The working groups aim to foster integration and collaboration by maintaining strong communication and encouraging overlap across teams through joint meetings and shared research platforms. A key priority is regular engagement with stakeholders, including aging populations, caregivers, and policymakers, to ensure that research remains relevant and impactful. Additionally, the groups are committed to education and outreach by translating research findings into community workshops, continuing education for professionals, and public health initiatives. Finally, they provide research support through pilot studies and the generation of preliminary data to strengthen applications for external funding.

CLINICAL RESEARCH

Led by Dr. Julia Sheffler | Read more [here](#)

The ISL Clinical Research Working Group continues its work on developing a campus-wide Clinical Research Assistant foundational training course. We have begun collaborating with the Office of Research to build the course and provide undergraduate students with a badge for course completion. The course will provide foundational training for students who are interested in joining a research lab with the goal of streamlining the RA onboarding process for faculty. The course will include modules on ethical conduct of research, clinical and professional skills, data management, administration of assessments, and more. The course will be ready for testing this summer. Our working group is also evaluating our current strategies for recruitment and retention in the ISL registry and working with faculty across campus to consider new ways of managing and improving this valuable resource moving forward. Faculty interested in contributing to the working group are encouraged to contact Dr. Sheffler.



ADVANCED TECHNOLOGY

Led by Dr. Zhe He | Read more [here](#)

The Advanced Technology Working Group has continued to play a leading role in advancing technology-driven research within ISL. Over the past year, the group has organized a series of workshops focused on emerging technologies and artificial intelligence, providing faculty and students with hands-on training and opportunities to engage with cutting-edge methods.

In parallel, members of the working group have contributed to the growing body of scholarship on generative AI in healthcare, publishing studies that explore its applications in areas such as patient engagement, clinical decision support, and health communication. These efforts reflect the group's commitment to fostering innovation and translating advanced computational approaches into impactful solutions for aging and health.

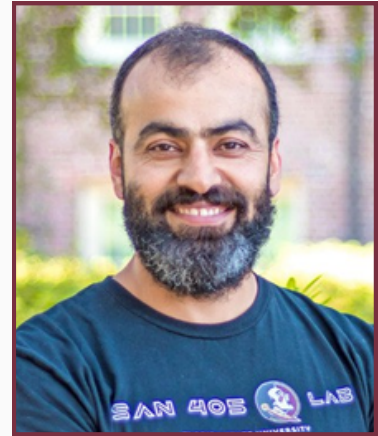


ISL WORKING GROUP UPDATES

BASIC SCIENCES

Led By *Dr. Ravinder Nagpal* | Read more [here](#)

The ISL Basic Science Working Group met multiple times over this year. The meetings and discussions primarily included sharing and discussing recently announced research funding opportunities related to aging and related health and disease aspects that could be relevant to ISL basic science affiliates. These included opportunities by federal agencies including NIH and DoD as well as foundations such as Alzheimer's Association, The 2026 Zenith Fellows Award Program, BrightFocus Foundation, American Federation for Aging Research (AFAR), and the Patient-Centered Outcomes Research Institute (PCORI) Broad Pragmatic Funding Announcements. The meetings also involved discussing recent developments occurring at NIH, NSF and other agencies regarding evolving research priorities and guidelines and discussing strategies for the researchers to help navigate and evolve through these emerging developments. The group also welcomed several new members that recently joined the ISL affiliate board. The group also informed the new affiliates about various programs and resources at FSU that are particularly beneficial for new faculty and early-career investigators, such as the ISL Seed Grant programs, the CRC Seed Grant programs, CRC FYAP awards, CRC EIEG awards, and the Provost travel grant program. The group also discussed the emerging developments at FSU in context to FSU-Health initiatives and how ISL could play a key role in addressing aging research. The group also provided updates on the newly established centers and programs at FSU, including the ICON-Health (Institute for Connecting Nutrition and Health), and (2) the MACHA (Maternal and Child Health Alliance) Research Interest Group. The group also discussed the prospects of capitalizing on existing big databases such as The UK BioBank and the NIH "All of Us" databases that could be accessed for various research purposes. In the coming year, the group aims to continue working on new initiatives and discuss funding opportunities involving multidisciplinary collaborations while continuing efforts to further enhance collaboration and engagement among ISL affiliates and researchers.



UMICH'S DR. KEN LANGA VISITS FSU

The ISL had the pleasure of welcoming Dr. Kenneth Langa, Co-Director of Health and Retirement Study, to FSU for a truly engaging and impactful visit centered on cognitive health, aging, and interdisciplinary collaboration.

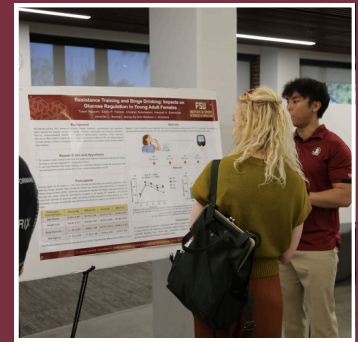
Dr. Langa's visit included a community-facing event at a local senior center, where he connected directly with older adults to discuss brain health and aging in an accessible and meaningful way. We are grateful to Dr. Langa for his generosity, intellectual leadership, and commitment to bridging research, education, and community impact. Read more [here](#).



ISL STUDENT POSTER DAY

On March 23, 2026, the ISL hosted its annual Student Poster Day at the Innovation Hub in the Louis Shores Building. The event opened with a career panel featuring Dr. Amy Sang, Dr. Julia Sheffler, and Dr. Joseph Watso.

Students then presented research on topics like nanoplastics, cognitive aging, and well-being in older adults, showcasing the range of work in longevity research. Top awards went to Faiza Mahmud (1st), Tyson Nguyen (2nd), and Daniel Leme and Roselynn Vargas (3rd). Read more [here](#).



2026 ISL STUDENT POSTER DAY WINNERS

1ST PLACE

FAIZA MAHMUD

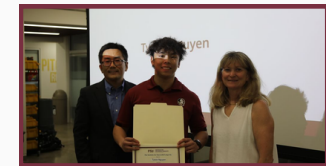
Effects of Micro- & Nanoplastics on Human Neural Stem Cell Aging



2ND PLACE

TYSON NGUYEN

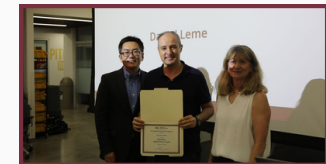
Resistance Training and Binge Drinking: Impact on Glucose Regulation in Young Adult Females



3RD PLACE

DANIEL LEME

Network Analysis of How Different Physical Activity Domains Relate to Cognition in Older Adults



3RD PLACE

ROSELYNN VARGAS

Prior Alcohol Exposure Limits Aerobic Exercise Induced Adaptions But Does Not Accelerate Markers of Aging in UM-HET3 Mice



2026 ESTHER & DEL GROSSER SCHOLARSHIP WINNER | JUSTICE N. ENE

The ISL is proud to recognize Justice Ene, a PhD candidate in Biomedical Engineering at the FAMU-FSU College of Engineering, as the 2026 Esther & Del Grosser Scholarship recipient.

Congratulations to Justice and his advisor Dr. Yan Li, as well as finalists Cole Patoine and Christin Domeier!



2026-2027 GRANT WINNERS



ZHE HE

Dr. Zhe He, just won a major **\$280K National a2 Pilot Award** from the National Institute on Aging to enhance AI-powered lab result interpretation for older adults. With this grant, Dr. He's LabGenie project will develop user-friendly AI tools that help explain lab results, tailored especially for those with lower health literacy. This project could transform how older patients and caregivers understand and act on medical information. Read more [here](#).



ELIZABETH MADDEN

Dr. Elizabeth Madden has been awarded an **R56 grant** from the **National Institute on Deafness and Other Communication Disorders** as a co-Investigator on the project "Evidence-Based Modeling Approaches to Customizing Treatments for Acquired Dyslexia." Led by William Graves at Rutgers University, this interdisciplinary team is using neural network models to better predict which reading treatments will work best for stroke survivors with aphasia and alexia.



RAVINDER NAGPAL, ANDREA LOBENE, JULIA SHEFFLER

ISL affiliates Dr. Ravinder Nagpal, Dr. Andrea Lobene and Dr. Julia Sheffler, have received a **\$400k research grant** from the **USDA-regulated Almond Board of California**. The study emphasizes healthy snacking habits in school-age children and aims to investigate how incorporation of organic almond butter by replacing processed spreads modulate the gut microbiome and the features of gut and metabolic health in these children.



RAVINDER NAGPAL, JULIA SHEFFLER, GLORIA SALAZAR, AARON WILBER

ISL affiliates Dr. Ravinder Nagpal, Dr. Julia Sheffler, Dr. Gloria Salazar and Dr. Aaron Wilber, have received a **\$60,000 research grant** from the **FSU Council for Research & Creativity (CRC)** to conduct a preclinical study investigating the role of sepsis-induced gut microbiome dysbiosis in the pathophysiology of Alzheimer's disease.

SPRING 2026 GOOD NEWS



DR. LUCINDA GRAVEN RECEIVES NATIONAL AWARD FOR HEART FAILURE NURSING RESEARCH

ISL affiliate Dr. Lucinda Graven has been honored with the 2025 Nursing Research Leadership Award from the Heart Failure Society of America. Dr. Graven's research focuses on improving quality of life and self-care for patients living with heart failure, a condition affecting over 6.7 million Americans.

ISL DIRECTOR DR. ZHE HE ELECTED AS FELLOW OF THE INTERNATIONAL ACADEMY OF HEALTH SCIENCES INFORMATICS

ISL Director Dr. Zhe He was elected to the Class of 2025 Fellow of the International Academy of Health Sciences Informatics (IAHSI), one of the highest honors in biomedical and health informatics. This prestigious recognition reflects his global impact on AI-powered health research, patient-centered innovation, and academic leadership. Read more [here](#).



DR. SLADJANA LUKIC RECEIVES UF-FSU CTSI 2025-2027 NIH K12 MULTIDISCIPLINARY PROGRAM CAREER DEVELOPMENT AWARD

Dr. Sladjana Lukic, Assistant Professor in the School of Communication Science and Disorders and Director of the Neurobiology of Language and Behavior (NoLaB) Lab, received the UF-FSU CTSI NIH K12 Multidisciplinary Program Career Development Award. Her research explores natural language production metrics to support aphasia diagnosis and treatment, examining how language, emotion, and cognition interact in aging.

DR. NEIL CHARNESS, FOUNDING DIRECTOR OF THE ISL, RECEIVES A 2026 SILVER STAR AWARD

Dr. Neil Charness, Professor Emeritus of Psychology at FSU and former ISL Director, has been selected as Tallahassee Senior Services 2026 Silver Star Award recipient. Silver Stars is the region's premiere event recognizing individuals who have made a positive impact in the community since turning age 60.



2026-2027 ISL PLANNING GRANT WINNERS

Each year, the ISL awards a \$25,000 Planning Grant to support innovative or ongoing interdisciplinary research that advances opportunities for successful aging. Open exclusively to ISL Faculty Affiliates, this grant encourages bold ideas and collaborative projects that align with our mission.

We're excited to announce this year's Planning Grant recipients, read more about their projects below. Learn more about the this year's ISL Planning Grant Winners [here](#).



DR. JACOB BROWN, DEPARTMENT OF HEALTH, NUTRITION & FOOD SCIENCES

"The Role of Oxylipins and Macrophages in Denervation-Induced Muscle Atrophy."

Co-PI: Dr. Kislay Parvatiyar



DR. GUANG WANG, DEPARTMENT OF COMPUTER SCIENCE

"A Data-Driven and AI-Enabled Framework to Improve Healthcare Accessibility for Older Adults and Support Successful Longevity"

Co-PI: Dr. Amber DeJohn



DR. HYE JIN PARK, COLLEGE OF NURSING

"Rural CARE-LINK: A Low-Bandwidth Digital Strategy for Depression Detection and Care Bridging in Alzheimer's Disease and Related Dementia Family Caregivers"

Co-PIs: Drs. Lucinda Graven, Qiuchang (Katy) Cao



DR. JAMES DU, DEPARTMENT OF SPORT MANAGEMENT

"AI-Powered Wearable Exoskeletons for Personalized Health Enhancement in Older Adults: An Integrated Physical-Digital Intervention for Physical, Social, and Mental Well-Being"

Co-PIs: Hanhan Xue, Amy Kim, Shayok Chakraborty, Angelina Sutin

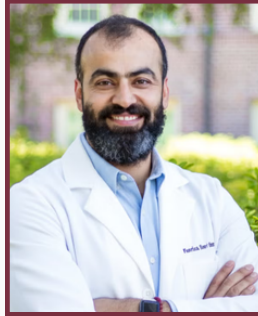
PREVIOUS ISL PLANNING GRANT WINNERS

Explore the past five years of ISL Planning Grant winners and their groundbreaking research in longevity.

2025-2026

Read more [here](#).

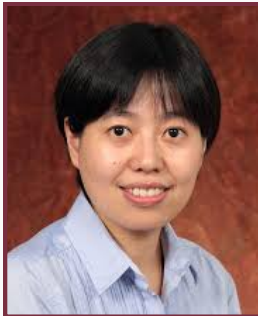
- **Dr. Ravinder Nagpal**
 - Dr. Julia Sheffler
- **Dr. Yunjung Kim**
 - Dr. Erin Bush
 - Dr. Victor DeBrunner
- **Dr. Hongyuan Cao**
 - Dr. Antonio Terracciano
 - Dr. Qian Zhang



2024-2025

Read more [here](#).

- **Dr. Fengfeng Ke**
 - Dr. Xin Yuan
- **Dr. Joseph Watso**
 - Dr. Kyle Smith
- **Dr. Qing-Xiang Sang**
 - Dr. Yi Zhou



2023-2024

Read more [here](#).

- **Dr. Michelle Parvatiyar**
- **Dr. Zilong Xie**



2022-2023

Read more [here](#).

- **Dr. Brad Schmidt**
- **Dr. Geraldine Martorella**
- **Dr. Zhe He**



2021-2022

Read more [here](#).

- **Dr. Bradley Gordon**
 - Dr. Michael Delp
- **Dr. Jennifer Steiner**
 - Dr. Ravinder Nagpal



2026 FACULTY AWARD WINNERS



DR. BRAD SCHMIDT

Robert O. Lawton Distinguished Professor Award

This award is the highest honor a faculty member can receive. It recognizes professors who have demonstrated extraordinary achievement in teaching and service to the university community. The award highlights a sustained commitment to academic excellence, student mentorship, and making a lasting impact through scholarship and leadership.



DR. JOSEPH WATSO

Outstanding Graduate Teaching Award

This award recognizes faculty who demonstrate exceptional dedication to teaching at the graduate level. This honor highlights a commitment to challenging and supporting students, fostering critical thinking, and creating an engaging, high-level learning environment.



DR. MIA LUSTRIA

Student-Centered Teaching and Mentoring Award

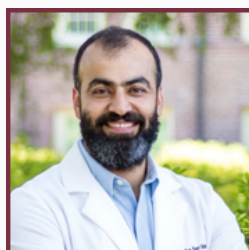
This award recognizes faculty who go above and beyond to put students first. This honor highlights a commitment to creating supportive learning environments, building strong connections with students, and mentoring them both inside and outside the classroom.



DR. ELIZABETH MADDEN

Student-Centered Teaching and Mentoring Award

This award recognizes faculty who go above and beyond to put students first. This honor highlights a commitment to creating supportive learning environments, building strong connections with students, and mentoring them both inside and outside the classroom.



DR. RAVINDER NAGPAL

Developing Scholar Award

This award recognizes the outstanding research and creative achievements of FSU faculty at the rank of Associate Professor. This award highlights scholars who are making meaningful contributions in their fields and continuing to build impactful, forward-thinking work.



DR. ZHE HE

Graduate Faculty Mentor Award

This award honors faculty mentors whose dedication to graduate students and commitment to excellence in graduate education and mentoring have made a significant contribution to the quality of life and professional development of graduate students at FSU.

BRAIN HEALTH IN OLDER ADULTS



By Julia L. Sheffler, PhD, ABPP

When we talk to older adults about brain health, one of the most common messages they hear is that they should ‘eat healthy’, but that advice is often much easier said than done. Many people are told to follow a Mediterranean-style diet or make other lifestyle changes without really being given clear, practical guidance on where to start, what foods to prioritize, how to shop or cook differently, or how to make those changes fit their budget, culture, routine, and health needs. For many older adults, especially those already managing medical issues, caregiving demands, or limited access to resources, the challenge is not just knowing that nutrition matters, its having

the information, support, and skills needed to make meaningful changes and stick with them over time. In my work, I’m always thinking about how we can make brain health recommendations more precise and actionable for older adults. Rather than just telling people that a dietary pattern may be helpful, I’m interested in understanding which specific nutrients may actually be contributing to better cognitive and cardiometabolic outcomes. More broadly, my work focuses on developing community-based interventions that not only provide high-quality, evidence-based information, but also help people build the practical skills and adherence strategies needed to make difficult dietary and lifestyle changes in real life.

For example, in a recent study of a 10-week dietary intervention with older adults at elevated risk for dementia, we found improvements in several areas of memory and executive functioning, along with associations between specific dietary components and markers of cardiometabolic health, cognitive performance, and overall dementia risk. Even after applying a stringent false discovery rate correction, higher intake of omega-3 fatty acids, vitamins B6 and B12, vitamin D, and lower carbohydrate intake were associated with better learning and immediate memory, while higher folate and thiamine intake were associated with stronger executive functioning. These findings help provide a more detailed picture of the dietary factors that may support brain and body health in later life. While we continue to analyze this intervention data, we are learning new ways to improve the quality of our dietary interventions, both in the foods we recommend and the ways these services are delivered.

HOW THE AGING KIDNEY RESPONDS TO DEHYDRATION



By Joseph Watso, PhD

Our recent research shows that even mild dehydration puts stress on the kidneys of both young and older women. As we age, it is commonly understood that our organs lose some of their functional resilience. However, unlike previous studies conducted primarily in men, we were surprised to find no age-related decline in kidney function among the women in our study when exposed to mild dehydration. This was an interesting result that should be noted because it highlights a crucial need to further explore how sex and aging uniquely impact kidney health.

Moving forward, our laboratory aims to decode these exact mechanisms. As for you, the reader, the fundamental advice remains the same: keep water handy to stay hydrated, especially as the weather warms up! [Learn more here](#)

SUPPORTING COMMUNICATION FOR STROKE SURVIVORS WITH APHASIA AND THEIR FAMILY CAREGIVERS



By Elizabeth Madden, PhD

Aphasia is a common communication disorder caused by stroke that affects a person's ability to talk, read, and write. Stroke and aphasia can negatively impact life participation for stroke survivors, as well as for their caregivers. In the [Aphasia Lab](#) at FSU, we are currently engaged in several research projects to help improve communication and social well-being for individuals with aphasia and their family members. In collaboration with colleagues at Rutgers University (Dr. William Graves), Kessler Foundation (Dr. Olga Boukrina), and Johns Hopkins (Dr. Argye Hillis) we are examining how two speech therapy treatments, one focused on phonology (sounds) and the other semantics (word meaning),

impact communication, with a particular focus on reading. Additionally, we teamed up with FSU colleagues in Nursing (Dr. Lucina Graven) and Social Work (Dr. Katy Cao) to better understand aphasia caregivers' lived experiences. Our analysis of the survey data found that caregivers who reported supportive friendships tended to report less caregiving burden highlighting the important role friendship and social connection play in caregiver wellbeing and health. Currently, we are preparing for our second annual Intensive Comprehensive Aphasia Program this summer in the FSU Speech & Hearing Clinic where a small cohort of stroke survivors will work closely with our clinical faculty (Mrs. Ellen Nimmons) and speech-language pathology master's students engaging in individual and group sessions focused on improving communication and social connection through various activities including speech therapy, animal therapy, yoga, music, art, and gardening. Family members also participate and have the opportunity to attend caregiver-focused sessions. We strive for our work to support the local aphasia community and bring awareness to others in our community regarding the vital roles communication and friendship play in our lives, particularly for those living with aphasia. To learn more about aphasia, please visit the National Aphasia Association's [website](#).

HOW EXTRACELLULAR VESICLES REVEAL ALZHEIMERS PROGRESSION



By Yan Li, PhD

Alzheimer's disease (AD) is a neurodegenerative disorder representing approximately 60-70% of dementia cases. As of 2025 over 7 million Americans are suffering from the disease, with the majority of them being aged 65 and up. Due to the complexity of AD, and its hard-to-reach location within the brain, it has been hard to pinpoint a direct causes or feasible treatments for the disease that doesn't require intensive surgery, medication and overall degeneration of the quality of life of the patient. Genetics, age, and environment have all been linked to AD and with differences in sporadic and familial AD there leaves too many questions and no enough answers regarding AD

treatment. How can we better support the elderly population as they are more susceptible to AD and suffer vast quality-of-life changes as the disease progresses?

In Dr. Yan Li's research lab, we specialize in human stem cell-derived extracellular vesicles (EVs), the body's cell-to-cell communication method that loads therapeutically relevant cargo that tells a lot about a parent cell. We have partnered with the Mayo Clinic and received samples derived from stem cells with AD patient-related genetic backgrounds. Genetic mutations such as the Presenilin 1 M146V (for familial AD) and APOE4E4 (for sporadic AD). We characterized the EVs released from brain organoids differentiated from human stem cells reprogrammed from AD patients. The cargo these EVs carry elevated levels of reactive oxygen species and decreased mitochondrial activity within healthy cells. Proteomics revealed a decreased level of cytoskeleton proteins and an increase in proteins responsible for ferroptosis. Gene analysis showed a differential response regarding the genes that regulate ferroptosis. Utilization of healthy brain organoid EVs as delivery systems for therapeutic drugs and AD relevant microRNAs can provide insight on the potential of EVs as cell-free therapeutics to alleviate and/or reverse AD progression in elderly populations.

RECENT AFFILIATE PUBLICATIONS

The ISL celebrates the latest research and scholarly work from our faculty affiliates. Have something to share? Submit your publication or good news [here](#).



DR. JOSEPH WATSO

- Advanced phenotyping in patients with a Fontan circulation uncovers effects of pulmonary vascular disease ([American Journal of Physiology](#))
- Cardiac responses to environmental heat exposure in young and older adults ([Journal of Applied Physiology](#))
- Central blood pressure and arterial stiffness among ultramarathon runners across the lifespan ([European Journal of Applied Physiology](#))
- Sodium intake and biological sex influence urinary endothelin-1 in salt-resistant adults: a pilot study ([American Journal of Physiology](#))



DR. SLADJANA LUKIC

- Verbal short-term memory in developmental dyslexia: The role of the temporoparietal area ([Brain and Language](#))
- A semantic strength and neural correlates in developmental dyslexia ([Frontiers in Psychology](#))



DR. ZHE HE

- AgentMD: Empowering Language Agents for Risk Prediction with Large-Scale Clinical Tool Learning ([Nature Communications](#))
- Evaluation of causal reasoning for large language models in contextualized clinical scenarios of laboratory test interpretation ([npj Digital Medicine](#))



DR. QING-XIANG "AMY" SANG

- Molecular and Cellular Effects of Microplastics and Nanoplastics: Focus on Inflammation and Senescence ([Cells](#))
- Polystyrene Micro- and Nanoplastic Exposure Triggers an Activation and Stress Response in Human Astrocytes ([International Journal of Molecular Sciences](#))



DR. RAVINDER NAGPAL

- Obesity-associated gut microbiome influences diet-induced metabolic and cognitive outcomes in older adults ([Gut Microbes Reports](#))
- Revisiting ultrasound and high-pressure homogenization modification of pea protein isolate: insights into gut microbiota modulation and anti-inflammatory activity ([International Journal of Biological Macromolecules](#))

PROJECT SPOTLIGHTS

LABGENIE PROJECT



LabGenie is a web-based patient engagement tool designed to help older adults better understand and act on their lab test results. Developed using a user-centered approach, the tool presents visual explanations of results and uses AI to generate personalized question prompts based on a patient's health data. The project aims to improve patient engagement, self-efficacy, and shared decision making, particularly for older adults with multiple chronic conditions and limited health literacy. Long-term, LabGenie seeks to enhance patient portals and decision aids to support better health outcomes in at-risk populations. This project is funded by AHRQ R21/R33 Phased Innovation Award (R21HS029969) and NIA National A2 Pilot Award through PennAITech (P30AG073105). Read more [here](#).

ADHERENCE PROMOTION W/ PERSON-CENTERED TECHNOLOGY



Adherence Promotion w/ Person-centered Technology

The Adherence Promotion for Programs of Training (APPT) Project is a collaborative research initiative funded by the National Institute on Aging. Led by an interdisciplinary FSU team, the project aims to improve early detection and intervention for cognitive decline by supporting older adults in using mobile-based cognitive assessments and training tools at home. APPT uses AI to personalize reminder systems that boost user engagement and adherence. The ultimate goal is to enhance cognitive health, independence, and quality of life for aging populations. This project is funded by NIA (R01AG064529). Read more [here](#).



UPCOMING: UROP MENTOR & PROJECT APPLICATIONS

The UROP Project Proposal Portal is now open, with proposals due by Monday, August 17. Interested in becoming a UROP Research Mentor? Attend an upcoming info session—hybrid options available throughout the summer. [Submit your proposal here.](#)

LAUNCHED: AFFILIATE ENGAGEMENT SURVEY

We're launching a new survey to better track affiliate engagement and ensure everyone has the opportunity to contribute to ISL's work. This will help us better understand how affiliates are involved, highlight contributions, and identify ways to increase participation across the community. Your input is important in making sure voices are heard and that ISL continues to grow as a collaborative and active network.

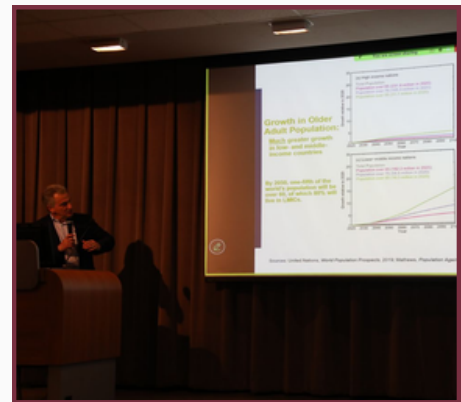
Affiliates can contribute [here](#).



BROWN BAG LECTURE SERIES

The ISL gives our affiliates the opportunity to share their research and get feedback on that research during our **Brown Bag Lecture Series**. Members of Florida State's Campus and the Tallahassee community are welcome to attend online or in-person. Upcoming events [here](#).

Stay updated with our social media and newsletter to get updates on upcoming guest speakers for the **ISL Speaker Series**.



SUPPORT US

Want to keep up with the latest from the ISL? Follow us on social media to learn about upcoming events, faculty research highlights, student features, and more.

- [Instagram](#) – @fsuisl
- [Facebook](#) – @Institute for Successful Longevity
- [LinkedIn](#) – Institute for Successful Longevity
- [YouTube](#) – @instituteforsuccessfullong6637
- [Spotify](#) - Voices of Longevity: Meet the Researchers



RESEARCH NEWS OR A NEW PUBLICATION?

Have exciting research updates, recent findings, or opportunities to share? We'd love to highlight them—fill out our Qualtrics form ([here](#)) to be featured in upcoming ISL communications and help keep our community informed and connected.

The logo for Qualtrics XM, featuring the word "qualtrics" in a lowercase, sans-serif font, followed by "XM" in a smaller, blue, uppercase font.

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