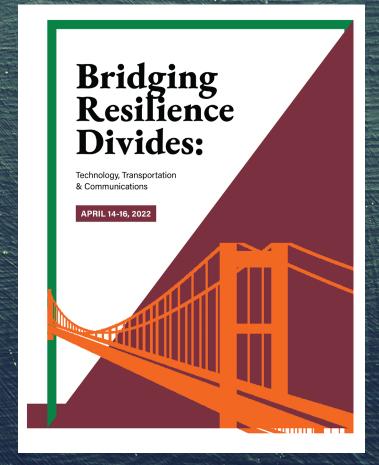


NEWSLETTER INSTITUTE FOR SUCCESSFUL LONGEVITY

ISL co-sponsors multidisciplinary conference

Researchers
spoke on
helping bridge
the gaps
between strong
communities
and those less
robust





Long-term effects of COVID may shape cognitive health in an aging society

We are already very aware of the risk of death associated with contracting COVID-19 for aging adults. Older adults age 65+, who comprise a bit more than 16% of the population in the USA, suffered almost 75% of all deaths from COVID-19 (https://data.cdc.gov/widgets/9bhg-hcku?mobile_redirect=true). However, a more insidious problem is beginning to be recognized for those who survive COVID-19 infection: impaired cognition. A recently published study of Chinese survivors who were age 60 and older examined cognitive status at 6 months and then a year following infection, https://jamanetwork.com/journals/jamaneurology/fullarticle/2789919. The researchers compared those who fell into categories of severe Covid and non-severe Covid to controls who were not treated for COVID-19, usually uninfected spouses. What they found is striking.

For all analyses, having a severe case was associated with worse outcomes than having a non-severe case. For instance, decline at six months occurred for 61% of severe cases compared to 29% of non-severe cases and for 21% of control cases. In the second six months, 31% of severe cases had cognitive decline, compared to 5% in less severe cases and 5% in the control participants. The fact that the cognitive deficit appears to diminish over time, perhaps similar to other conditions such as "chemo brain" https://www.washingtonpost.com/health/2022/03/27/covid-brainfog-chemo-brain-alzheimers-disease/ provides some guarded optimism.

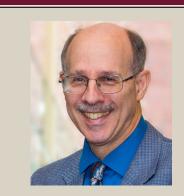
In another analysis they classified people into different trajectories: stable cognition, early-onset cognitive decline, late-onset cognitive decline, and progressive cognitive

decline. Even non-severe cases showed a 70% higher risk of early-onset cognitive decline (odds ratio of 1.71) compared to the total group, and severe cases had a 487% greater risk (odds ratio of 4.87). For other categories, the non-severe group

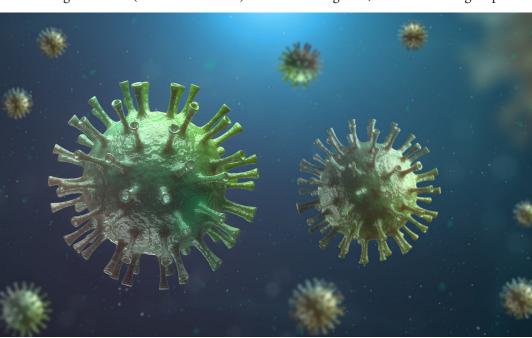
did not differ much from the controls (late-onset, progressive decline), but the severe case group had very-high risk ratios.

What does this mean for our aging population? Clearly, getting a severe case of COVID-19 when you are older not only jeopardizes your life but also increases your risk for dementia if you do survive. We know that approved vaccines plus their boosters are highly protective against severe Covid (and for preventing death). For the roughly 11% of Americans age 65+ who are not fully vaccinated https://www.cdc.gov/coronavirus/2019-ncov/

FROM THE DIRECTOR



Neil Charness, Ph.D., is the William G. Chase Professor of Psychology and Distinquished Research Professor at Florida State University and Director of the Institute for Successful Longevity.



covid-data/covidview/index.html the much higher risk of developing dementia after infection may be a very good reason to

do so. On the bright side, 95% of those age 65+ have had at least one dose of vaccine.

The case of contracting non-severe Covid is also alarming for the long-term mental health of our aging population. It is estimated that 43% of Americans have been infected with COVID-19, https://covid.cdc.gov/covid-data-tracker/#national-

<u>lab</u>. That represents 140 million Americans. Now, the Chinese study did not follow those younger than age 60. So, we don't know if those with non-severe COVID-19 at younger ages have the same risk of later showing abnormal cognitive decline rates in their older years. But, that prospect of greater vulnerability to dementia is worrisome and should be an incentive for everyone, young and old alike, to become fully vaccinated.

We experienced a decline in dementia rates in the population in the last decade or so. Nonetheless, we can expect the total number of cases to rise despite the lower prevalence rate simply because so many people, particularly the 70-million strong Baby Boom cohort are reaching advanced ages. Dementia risk increases sharply across the adult lifespan. If there is even a tiny increased risk associated with contracting dementia after COVID-19 infection in younger cohorts, those dementia prevalence numbers could move higher. And there are probably a significant number of younger and middle-aged Americans who have survived severe COVID-19 infections who might have an elevated risk of impaired cognition as they age.

The case of contracting non-severe Covid is also alarming for the long-term mental health of our aging population.... The prospect of greater vulnerability to dementia is worrisome and should be an incentive for everyone, young and old alike, to become fully vaccinated.

This analysis suggests that it will be important to monitor the long-term effects of the pandemic on the cognitive health of our aging population. Hopefully, by the time younger age cohorts reach their high-risk years, we will have effective interventions to mitigate both normal and abnormal cognitive aging.

You can volunteer to help with ISL's research

FSU's Institute for Successful Longevity 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://www.isl.fsu.edu/volunteer, or call 850-644-8571 or send an email message to isl@fsu.edu.



The Institute for Successful Longevity conducts research into how to live longer, stay active and be fully engaged in life. The institute takes a multidisciplinary approach to better explore the complexities of life as an older individual. Visit our web site at https://isl.fsu.edu/.

The Institute for Successful Longevity was one of the sponsors of the recent Bridging Resilience Divides: Technology,

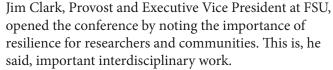
Transportation & Communications, a multidisciplinary conference held at FSU's Turnbull Conference Center.

The conference focused on the gaps between well-equipped, well-prepared communities and other communities that are less robust and how researchers can help all communities become stronger, more resistant to disasters, such as tropical storms. The presentations included an emphasis on the needs of older adults during natural disasters, and the conference also looked at transportation and mobility issues that affect older adults.

The conference spread its activities over three days in mid-April, with the final day dedicated to a thought-provoking discussion of recommendations the conference could offer on how communities could effectively and practically enhance resilience and expand support to residents. The discussion led to the start of work on a paper to be published later this year, framing the issues raised in the conference and outlining meaningful steps communities could take to boost abilities to resist and recover from disasters.

Here are some of the highlights from the conference.





Bridging Resilience

Divides:

Technology, Transportation

& Communications

APRIL 14-16, 2022

It is remarkable, Clark said, to see university experts building partnerships with communities and policymakers and sharing ideas now as research is emerging, not years later.

Walter Boot, Professor of Psychology and Associate Director of the Institute for Successful Longevity, today advised participants at the Bridging Resilience Divides: Technology, Transportation & Communications, a multidisciplinary conference at FSU's Turnbull Conference Center, that the digital divide remains when one looks at ages and use of smartphones and other technology.

He noted that while smartphones use is almost universal among younger Americans, it is far less common among older adults — 40 percent of adults 65 or older do not use smartphones. This poses a serious problem, Boot said, as society comes to rely heavily on technology to communicate. "If you do not own the technology," Boot said, "you might not get the information."





Goldie Nejat of the University of Toronto gave a fascinating talk on her lab's development of socially intelligent robots to assist older adults.

Kevin Guthrie, Director of Florida Emergency Management, spoke of the many challenges the state faces in building resilience against the recurring threat of hurricanes and tropical storms, in his keynote address at the Bridging Resilience Divides: Technology, Transportation & Communications, a multidisciplinary conference at FSU's Turnbull Conference Center.

Guthrie said Florida's communities and the state need to develop common strategies for emergencies. We have to work together, he said, in concert, not in a disjointed fashion that can, inadvertently, have one community's actions damage a neighboring community. For example, he said, this can happen with flood control efforts that are not developed in cooperation.

Guthrie also spoke of his interest in strengthening emergency-management programs at Florida's universities and colleges, as a way of boosting the state's future planning capabilities and of building greater storm and disaster resilience.





Lisa Bretz, at left, Executive Director of the Area Agency on Aging for North Florida, and Kristy Carter, Assistant Program Supervisor with the Tallahassee Senior Center, spoke during a panel discussion about using technology — smartphones and tablets and computers — to help keep older adults engaged with family and the community and to fight social isolation, especially during the pandemic.

Carter mentioned the Senior Center's partnership with the Institute for Successful Longevity to teach older adults how to use the Zoom online meeting program.

Bretz and Carter acknowledged that there can be problems with the use of technology that is new to people and explained how they worked through those challenges.

"The Internet is no longer a luxury," said Andrew Sixsmith, Associate Scientific Director of Canada's AGE-WELL program. "Now, it is an absolute necessity if you want to be a participant in the 21st century economy."

Sixsmith, who is also Director of the Science and Technology for Aging Research Institute at Simon Fraser University in British Columbia, Canada, said older workers are developing technology skills to remain competitive. He gave the example of taxi drivers who want to switch to Uber drivers. They first must master a complicated bit of technology, the Uber app.

"To participate in the workforce today," Sixsmith said, "you have to have technology skills," no matter your age.





Older adults can learn how to use new technology, said Sara J. Czaja, Professor of Gerontology and Director of the Center on Aging and Behavioral Research at Weill Cornell College of Medicine.

She related results of a research project in which older adults who were provided tablets that had been modified for older users showed significantly gains in the use of technology. She also spoke of other research which showed improved technology use when older adults were provided adequate training.

Despite this, she said, age-related inequities in technology use continue. One reason these gaps persist, she said, is that technology designers often ignore older adults as tech users.

Uber and Lyft are now major players in transportation in today's world, but we actually know little about the impact of these app-based services, said Yanshuo Sun, Assistant Professor of Industrial and Manufacturing Engineering in the FAMU-FSU College of Engineering.

"Mobility is changing," Sun told the conference. "There are many more options today than were available just 10 years ago." But we lack performance measures to track use of these newly available means of mobility. Chief among them are the Uber and Lyft ride-hailing services.

As private, competitive companies, Uber and Lyft release little data on their operations — almost everything is kept under cover. Sun explained that this data gap creates problems for those studying or managing transportation in America.

Sun, however, has devised a way to fill this data breach through a clever study that pulls information from the company's own public apps.

He is now refining his research to ensure the workability of the data, which can provide insights into a growing element of 21st century transportation.



Renee M. St. Louis, Assistant Research Scientist at the University of Michigan's Transportation Research Institute, spoke of her research on older adults and the various factors that determine their resilience as automobile drivers as they grow older, in a conference keynote address.

Of the many interesting elements of her research is this — women drivers show greater resilience than do men drivers as they age.





Gail Holley, left, who manages Florida's Safe Mobility for Life program, and JR Harding, center, an advocate for the independence and self-sufficiency of persons with disabilities, and DeWayne Carver, the Florida Department of Transportation's Criteria Publications Manager, led a lively discussion on "Aging & Mobility — Safe Mobility."

The panel took questions on a wide variety of topics related to making transportation work for everyone, from pedestrians, drivers, cyclists, those with disabilities and others.

Farrukh Alvi, left, Interim Dean of the FAMU-FSU College of Engineering, and Jay Terry, FSU Assistant Vice President for Academic Affairs, Centers and Institutes, Community and Economic Engagement, give opening remarks to open the second day of the conference.



Priyanka Alluri, Associate Professor of Civil and Environmental Engineering at Florida International University, spoke of her research into something we've all witnessed on the highways — secondary crashes, the collisions that take place after traffic backs up behind an initial vehicle crash on a busy highway.

Alluri and her team are developing a way to quickly and accurately assess whether secondary crashes have taken place by examining changes in traffic speed sampled by roadway cameras and sensors and comparing those data to the normal flow of traffic on a particular stretch of roadway at a particular time, while taking into account the roadway's geometry (is it a hill or a curve?) and other factors.

She hopes this real-time analysis will allow traffic managers and law enforcement to take steps to respond faster to secondary crashes and even take steps, after an initial crash, to prevent further collisions.



The Covid-19 pandemic forced many drastic reductions in behavior on Americans, but older adults who ride bicycles were able to maintain their good cycling habits and even expand their time on their bikes, according to a study by Kristin Gladwin, a doctoral candidate in FSU's Department of Urban and Regional Planning. She received her Ph.D. at the College of Arts & Sciences spring commencement April 29.



Overall, Gladwin told the conference, there was a consistent theme of positivity among the older riders she interviewed. They were cycling more often, doing longer distances and in some cases using their bikes for new purposes.

She found no negative feelings. The older cyclists spoke of a sense of accomplishment, enjoyment and improved self-esteem, as well as increased freedom from being able to get out of the house.

Getting out and getting exercise was important to the older cyclists. They said they rode their bikes to foster good health, to get into shape for a long-distance cycling trip or to maintain health and longevity.

Gladwin said the riders reported they enjoyed cycling and were pleased that they could continue to ride during the pandemic. Some who were new to cycling said the pandemic prompted them to try something new they might enjoy and could enjoy with others — a way to counter Covid-19's social isolation.

The older cyclists told the researcher that they intend to keep up their riding post-pandemic. Several of the study participants mentioned cycling as a tool for maintaining social relationships during the pandemic.



On the final day of the Bridging Resilience Divides conference, organizers and some participants engaged in a thought-provoking discussion of recommendations the conference could offer on how communities could effectively and practically enhance resilience and expand support to residents.

The discussion led to the start of work on a paper to be published later this year, framing the issues raised in the conference and outlining meaningful steps communities could take to boost abilities to resist and recover from disasters.

Above, the key organizers of the conference are on the front row, from left: John Sobanjo, Professor of Civil and Environmental Engineering and Director of the Center for Accessibility and Safety for an Aging Populationm(ASAP); Anil Yazici, Associate Professor of Civil Engineering at the State University of New York at Stony Brook; Walter Boot, Professor of Psychology and Associate Director of the Institute for Successful Longevity; Eren Erman Ozguven, Director of the Resilient Infrastructure and Disaster Response (RIDER) Center; and Neil Charness, Distinguished Research Professor of Psychology and Director of the Institute for Successful Longevity.

Institute awards its 2022 ISL Planning Grants to Brad Schmidt, Geraldine Martorella, Zhe He

The Institute for Successful Longevity has awarded its 2022 ISL Planning Grants to Brad Schmidt, Ph.D., Distinguished Research Professor in the Department of Psychology, Geraldine Martorella, Ph.D., Associate Professor in the College of Nursing, and Zhe He, Ph.D., Associate Professor & Program Chair of MSIT in the School of Information.

Each researcher receives \$25,000 to support their winning project.

The planning grants, offered to Faculty Affiliates of the Institute for Successful Longevity, are awarded through a competitive application process and review and are designed to promote collaboration among FSU research faculty. In addition, the program is seen as a first step toward collecting pilot data leading to federal funding.

The 2022 ISL Planning Grants winning proposals are:

Dr. Brad Schmidt, Department of Psychology — Anxiety psychopathology is highly prevalent in people living with mild cognitive impairment (MCI), Alzheimer's disease and related dementias (ADRD) and their care partners. Moreover, elevated anxiety is a marker for and potentially contributes to earlier onset of ADRD symptoms. Despite this, there are no well-established interventions for anxiety in individuals with ADRD/MCI and their care partners. Prior treatments for anxiety in ADRD/MCI are lengthy, burdensome, excessively rely on intact cognitive abilities, and result in high dropout rates. Consistent with NIA research priorities focused on translational research in ADRD, our overarching goal is to conduct a definitive RCT that will be the first to test a brief, CBTbased intervention, called cognitive anxiety sensitivity treatment (CAST) in people living with MCI/mild ADRDs and their care partners. We believe the interoceptive exposure component of CAST will be particularly relevant to MCI/mild ADRD where learning may be compromised due to cognitive decline. This ISL proposal will provide preliminary/pilot data in support of such an RO1

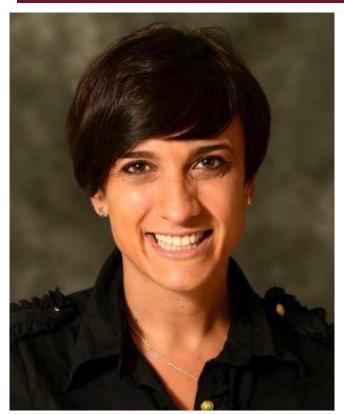


Brad Schmidt, Ph.D., is Distinguished Research Professor in the Department of Psychology and a Affiliate of the Institute for Successful Longevity.

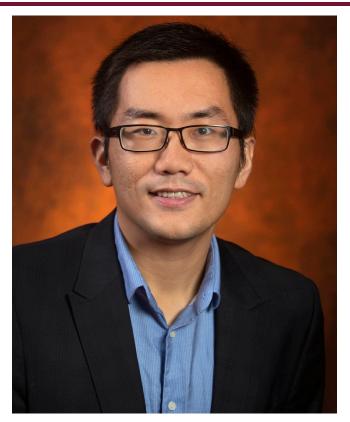
submission. There are two specific aims: (1) to evaluate the acceptability/feasibility of our CAST protocol plus a two-week Internet-assisted skills training when delivered to anxious, older adults with MCI; (2) to evaluate preliminary efficacy data in support of the protocol in reducing the targeted mechanism of action (AS) and relevant outcome symptoms (anxiety).

Dr. Geraldine Martorella, College of Nursing — This proposal will investigate the combined effects of pain management delivered via transcranial direct current stimulation (tDCS) and mindfulness-based interventions (MBI) for older adults following total knee replacement (TKR). Osteoarthritis is a leading cause of disability in the United States making TKR one of the three most common inpatient surgeries performed. While acute pain in the surgical context is expected, greater pain predicts worse outcomes for TKR patients, including chronic post-surgical pain (CPSP) which affects functioning and quality of life. Opioid analgesics have traditionally been used after surgery.

Beside their concerning iatrogenic effect in older adults, a multimodal approach to pain relief is warranted to address the biopsychosocial interactions determining pain trajectory. Moreover, with preoperative pain being the most important risk factor for CPSP after TKR, preemptive analgesia needs to be explored. MBI show some promise in the preoperative period potentially improving brain function in relation to pain. tDCS has been shown to impact pain-related brain activity as



Geraldine Martorella, Ph.D., Associate Professor in the College of Nursing and a Faculty Affiliate of the Institute for Successful Longevity.



Zhe He, Ph.D., is Associate Professor in the School of Information and a Faculty Affiliate of the Institute for Successful Longevity.

well but has not been tested in the preoperative period. Therefore, the goal of this project is to assess the preliminary feasibility, acceptability, and efficacy of self-administered preoperative tDCS+MBI in older adults undergoing TKR. The central hypothesis is that combined preoperative tDCS+MBI will decrease postoperative analgesic consumption, postoperative clinical pain, as well as preoperative pain-related cortical response. This innovative approach building on current evidence regarding CPSP risks factors after TKR is significant. Indeed, if successful, a non-invasive, cost-effective, and sustainable modality could promote pain self-management and equitable access to pain relief.

Dr. Zhe He, School of Information — There is increasing interest in promoting the use of information and communication technology to engage patients in their own healthcare. Patient portals, for example, can provide patients with secure access to lab test results, doctors' notes, and medication lists, as well as facilitate communication with healthcare providers. Use of patient-facing tools like portals have been found to improve the overall quality of preventive or follow-up care, improve medication adherence and compliance with treatments, as well as reduce caregiver burden.

Patients with the highest healthcare needs, such as older adults with multiple chronic conditions, stand to benefit the most from the adoption of patient portals. However, multiple factors have been found to hinder older adults' ability to fully optimize their use of these tools and their ability to retrieve and understand lab test results, one of the most used features of patient portals.

We will develop an Al-assisted application called PRECIOUS (Personalized Recommendation of Credible Information Sources) to help older adult patients interpret their lab results by providing them with tailored recommendations and health information sources. The overall goal of this proposal is to generate essential pilot data to develop PRECIOUS. To understand patient challenges and needs, we will conduct mixed-method formative research. We will also build a knowledgebase for the backend expert system and conduct a participatory design workshop for the frontend interface of PRECIOUS. A long-term goal is to develop a patient-facing app to enhance patient portals and apply these functionalities to handle other types of medical information.

Amy L. Ai of College of Social Work honored as FSU Distinguished Research Professor

Amy L. Ai, Ph.D., Professor in the College of Social Work and a Faculty Affiliate of the Institute for Successful Longevity, has been named a Florida State University Distinguished Research Professor.

"I am immensely grateful for and deeply humbled by this prestigious award," said Dr. AI. "I hope to make more interdisciplinary contributions to FSU and to the several FSU agencies with which I am affiliated, including the Institute for Successful Longevity." She received the award April 27 at the FSU Faculty Awards Reception in the Champion's Club.

"I was aware of Dr. Ai's reputation as a nationally prominent voice in social work research before I came to FSU in 2015,

and my interactions with her since my arrival have reinforced this appraisal," wrote FSU Provost Jim Clark, who was Dean of the College of Social Work when he endorsed Dr. Ai's nomination for this recognition. Dr. Clark noted: "Even with her many accomplishments, Dr. Ai never, never rests."

Dr. Ai's research interests involve gerontology, long term survival post open-heart surgery, health disparities, cultural diversity, behavioral intervention, mindfulness, mental health and spirituality, as well as trauma, disasters and coping.

In her previous services, she was a gubernatorial appointee to the Washington State Council on Aging and an At-large Delegate to the White House Conference on Aging. Dr. Ai is a Fellow of the Gerontological Society of Americas, the Association for Psychological Science and the American Psychological Association Div. 20, 36, 38, as well as a Hartford Geriatric Faculty Fellow.

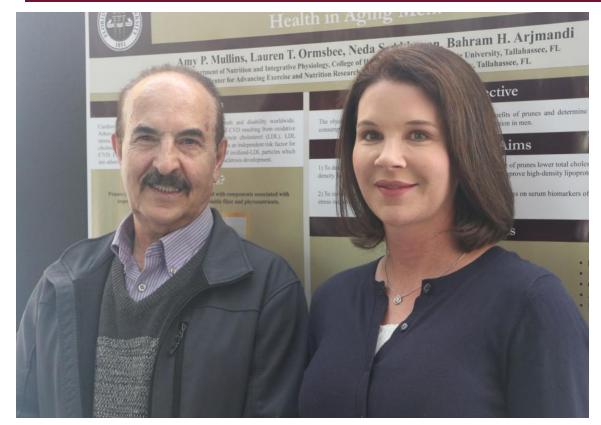
In his nomination of Dr. Ai, Dr. Norman Anderson, Professor of Social Work and Assistant Vice President for Research and Academic Affairs, wrote: "At the broadest level, Dr. Ai is considered one of the world's leading scholars working at the interface of aging, trauma-related growth, spirituality, health, and mental health, especially as they relate to cardiovascular disease.

Her research on these topics focuses on both individual and collective trauma, and how such trauma might be mitigated by individual and cultural strengths. Her research in these fields is viewed as an exemplar of interdisciplinary science, bringing theoretical originality and methodological sophistication to complex, multifaceted topics."



Amy L. Ai is Professor in the College of Social Work and an FSU Distinguished Research Professor, as well as a Faculty Affiliate of the Institute for Successful Longevity.

Dr. Ai's global reputation and impact led to her successful Fulbright career, which includes two Specialist Awards (Germany and China) and also being awarded a Fulbright Distinguished Chair for China in 2016. Her research focus has been on those resources which provide for resilience among people experiencing traumas, especially in older adults, including medical challenges. "Through this work," Dr. Clark wrote in his nomination, "Dr. Ai has done as much as anyone to demonstrate the value of spirituality in the general coping process. As a result of her studies, she has entered the top tier of researchers in the world on the subject of religion and health and is a leader in this field of study within academic psychology."



Amy Mullins, a doctoral candidate in Nutrition and Integrative Physiology and winner of the Esther & Del Grosser Scholarship, with her major professor, Bahram H. Arjmandi.

Amy Mullins of Nutrition and Integrative Physiology awarded ISL's Esther & Del Grosser Scholarship

Neil Charness, Ph.D., Director of the Institute for Successful Longevity, has announced that Amy Mullins, doctoral candidate in the Department of Nutrition & Integrative Physiology, has been awarded the Institute for Successful Longevity's Esther & Del Grosser Scholarship.

The scholarship provides \$1,000 in support of student research.

The scholarship supports Mullins, a registered dietitian who has held a county faculty position with the University of Florida's Institute of Food and Agricultural Sciences, in her research on human nutrition and chronic disease prevention.

Mullins is working with Bahram H. Arjmandi, Professor & Director of the Center for Advancing Exercise and Nutrition Research on Aging in the College of Health and Human Sciences. Her research will investigate the daily consumption of prunes in aging men, aged 55-80 years old, with a focus on cardiovascular benefits. The goal is to identify whether prunes can provide a preventative measure against chronic inflammation in osteopenic (low bone density) aging men and if consumption of prunes can extend protection to improve vascular health.

"I am excited to work toward finding practical nutrition solutions with far-reaching implications for improving cardiovascular disease risk in aging populations," Mullins said. "I am honored to receive such a generous award and know that it will go a long way in helping advance nutrition research."

Charness said the Institute for Successful Longevity was pleased to honor Mullins with the Esther & Del Grosser Scholarship. "Her research plan shows that creative work on longevity is taking place at the graduate level at Florida State University," Charness said.

Matthew 'Jake' Martenson wins ISL Student Poster Day competition

Matthew "Jake" Martenson has won the Institute for Successful Longevity's 2022 Student Poster Day competition.

Martenson is a student of Dr. Judy Delp of the College of Medicine and Dr. Lynn Panton of the College of Health and Human Sciences.

Martenson's presentation was titled "Stretching with Ankle Dorsiflexion Splint Improves Measures of Microvascular Reactivity and Oxygen Extraction in Patients with Peripheral Artery Disease."

Martenson won a prize of \$100 for his first-place presentation.

Michael Prevratil, a student of Dr. Neil Charness of the Department of Psychology and Director of the Institute for Successful Longevity. His poster was titled "Assessing the Reliability and Validity of a Reduced Navigation Ability Scale." Prevratil won a prize of \$50.

Steven Medarev, a postdoctoral student of Professor Delp, won third prize. His poster was titled "Microvascular Resistivity Decreases with Age; Role of Adiponectin." Medarev won a \$25 prize.

In the competition, graduate students showed their posters and explained their research and took questions from other graduate students, faculty and the three-judge panel, which determined the winners.

three-judge panel, which determined the winners.

Panton of the College of Health and Human Sciences.

"We were pleased to offer the ISL Poster Day competition in person this year,

despite the challenges of the pandemic" said Charness "The students did a fine."

despite the challenges of the pandemic," said Charness. "The students did a fine job with their presentations and, again, demonstrated the high quality of longevity research to be found at the graduate level at Florida State University."



Dr. Jasminka Ilich-Ernst, a Faculty Affiliate of the Institute for Successful Longevity, has won a Fulbright Scholar Award for 2022-2023 to do research in Serbia.

"I will be starting this fall and going to the Department of Nutritional Biochemistry and Dietology at the University of Belgrade, Serbia, including the Institute for Medical Research, a National Institute of the Republic of Serbia," Dr. Illich-Ernst said. "I will investigate the influence of macro- and micro-nutrients and bioactive food components in decreasing chronic inflammation and improving body composition (bone, muscle, fat tissue) outcomes. The research will be conducted on the cellular levels, utilizing mesenchymal stem cells, as well as in human participants as part of the clinical trial."

Dr. Ilich-Ernst is a registered dietitian nutritionist and a Fellow of the American College of Nutrition. She is an inducted member of the Bosnian & Herzegovinian-American Academy of Arts and Sciences. ■



Matthew "Jake" Martenson is a

student of Dr. Judy Delp of the

College of Medicine and Dr. Lynn

Jasminka Ilich-Ernst will do her Fulbright research in Serbia.