

Annual Report
Center on
Health, Aging,
and Disability

2024



**College of Applied
Health Sciences**

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN



Welcome to a new academic year!

Welcome to back to campus!
The 2024–25 academic year was a busy and exciting one for the College of Applied Health Sciences research and the Center on Health, Aging, and Disability (CHAD) as we supported the innovative research, education and public engagement work of AHS.

The 2024–25 academic year brought significant change, uncertainty and stress for researchers across our campus. Yet I remain deeply inspired by the resilience and dedication of our AHS faculty, staff and students.

Having just completed my 31st year on this campus, I have witnessed periods of challenge in science and funding before. I remain confident that through our shared commitment to advancing health sciences, we will continue to persevere in the face of these challenges.

Throughout the uncertainty of the past year, the Center on Health, Aging, and Disability (CHAD) was here to support the important work of health sciences researchers.

This year we celebrated the **15th anniversary of the CHAD Pilot Grant Program**. Over the life of this program, we have **awarded almost \$1.2 million** across 49 grants and **returned almost \$15 million in externally funded research awards to our college**. I am incredibly proud of the innovative research this program has produced.

Our two research themes, Collaborations in the Advancement of Research on Disability (CARD) and Collaborations in Health, Aging, Research, and Technology (CHART) continue to impress me with their groundbreaking research and their presence at community events. The CARD and CHART Symposium this past winter was a particular highlight for me. It is always a pleasure to see innovative research highlighted and new connections

In FY25, our staff supported **86 external grant submissions** with AHS investigators as the lead PI. We had an excellent year in terms of **external funding with \$13.98 million in research expenditures**. Although the near future of externally funded research is unclear, I remain confident that the strong foundation our researchers have built positions us well for brighter days ahead in the future.

I would like to thank the CHAD staff, interns, the CHAD Senior Faculty Committee, the CHART Steering Committee, the CARD Steering Committee, the CHART Advisory Panel, the Age-Friendly Steering Committee, and all who worked with CHAD throughout the year.

YOURS IN SCIENCE,

A handwritten signature in white ink that reads "Jeff Woods". The script is fluid and cursive, with the first letters of "Jeff" and "Woods" being capitalized and prominent.

Jeff Woods

Director, Center on Health, Aging, and Disability
Associate Dean for Research, College of Applied Health Sciences
Mottier Family Professor, Health and Kinesiology

Pilot Grants

We are proud to highlight the significant impact of CHAD's support for AHS researchers.

With a total investment of more than \$1 million in pilot research grants, our faculty have successfully utilized these initial projects to secure larger funding from federal, foundation and corporate sponsors. Building on this success, in 2025, we awarded three pilot grants to our faculty, fostering innovation and advancing groundbreaking research in the health sciences.

2025 Pilot Grant Recipients



Sadie Braun

**SPEECH AND
HEARING SCIENCE**

Creation of Speech-in-Noise
Profiles for Clinical Fitting of
Hearing Technologies



Jack Senefeld

HEALTH AND KINESIOLOGY

Metabolic Regulation During
Exercise in Humans with
Prediabetes



Julie Son

**RECREATION, SPORT
AND TOURISM**

Leisure-Wise to Age Well:
Identifying Healthy Leisure
Lifestyle Components for a
Downstream AI System for Older
Adults' Health Promotion*

** This project was awarded as part of the Rehabilitation Engineering Research Center on Technologies to Support Aging-in-Place for People with Long-Term Disabilities (RERC TechSage) funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR).*

Travel Grants

CHAD is committed to fostering academic collaboration and knowledge dissemination by offering travel funding opportunities to faculty and academic professionals to present their work at conferences across the globe.



CANADA

Gatineau, QC

UNITED STATES

Baltimore, MD

Chicago, IL

Columbus, OH

Madison, WI

New Orleans, LA

Orlando, FL

Philadelphia, PA

Pittsburgh, PA

San Diego, CA

Scottsdale, AZ

Seattle, WA

Virginia Beach, VA

EUROPE

Glasgow, Scotland

Barcelona, Spain

Copenhagen, Denmark

Galway, Ireland

Paris, France

Warsaw, Poland

Grant Submissions and Research Expenditures

Despite uncertain times, AHS faculty, staff and students continued to submit strong grant proposals, leading to a record year for research expenditures.

**86 PROPOSALS
SUBMITTED**

**\$13.98 MILLION
SPONSORED RESEARCH EXPENDITURES**

Public Engagement

Throughout the year you may have seen our staff, faculty and students at community events such as resource and health fairs, festivals and parades, educational events and farmers markets. We have also been actively engaged in planning for public engagement infrastructure at the college level and continue to support the work of the community group Age-Friendly Champaign-Urbana.



CHAD ANNUAL REPORT

ENGAGED UNIT PROGRAM

During the 2024–25 academic year, a team of faculty, staff and a graduate research assistant advanced infrastructure for publicly engaged research in the college.

We established a shared definition of public engagement, provided leadership with recommendations for a future coordinating entity and began developing resources and educational offerings to support this work. This work was supported through the Engaged Unit Program in the Office of the Vice Chancellor for Public Engagement.

AGE-FRIENDLY CHAMPAIGN-URBANA

In 2024–25, Age-Friendly Champaign-Urbana (AFCU) advanced its work in the Age-Friendly Domains of Livability, focusing on Communication, Outreach and Inclusion.

Key efforts included publishing articles in *Central Illinois Business Magazine*, beginning the development on a website with resources for older adults and caregivers, promoting Active Aging Week and engaging with local groups and neighborhoods at community events to share information.



CHART and CARD Symposium

On Feb. 21, 2025, CHAD, CHART and CARD hosted the “Community-University Engagement to Support Aging and Disability” symposium drawing more than 100 attendees in person and many others on Zoom.

In addition to updates on the research themes, presentations and panels on inclusive research, we were thrilled to welcome Susan Stark, a professor of Occupational Therapy, Neurology and Social Work from Washington University, for her keynote presentation on building trust in community-engaged research.

The symposium strengthened commitments to inclusive, community-centered aging and disability research.

Photos: (Top) Symposium Panel Discussion. Cathy Emanuel and Mel Liong; (Bottom) Symposium Panel, pictured from left to right: Ian Rice, Cathy Emanuel, Mel Liong, Susan Stark



Collaborations in the Advancement of Research on Disability (CARD)

Collaborations in the Advancement of Research on Disability (CARD) launched in spring 2023 with the mission to enhance the health and quality of life of people with disabilities through research that addresses critical gaps in disability-related knowledge and outreach that engages individuals with disabilities.

EVENTS

AHS RESEARCH FAIR

In fall 2024, CARD hosted the inaugural AHS Student Research Fair at DRES, where affiliated labs presented their work to students with disabilities. The event offered opportunities for feedback, research participation and potential roles as research assistants. CARD plans to make the fair an annual tradition, expanding student and lab involvement each year.



KERRI MORGAN

In November, CARD hosted Kerri Morgan, associate professor of Occupational Therapy and Neurology at Washington University, for a presentation titled “Physical Activity and Disability: Overcoming Barriers, Enhancing Participation and Improving Health.”





Collaborative Working Group Meetings

September 2024: Hosted by Laura Mattie from the Development in Neurogenetic Disabilities Lab and Marie Channell from the Intellectual DisAbilities Communication Lab.

November 2024: Hosted by Michael Lotspeich-Yadao at the Chez Veterans Center.

February 2025: Hosted by Susann Sears at University of Illinois' Disability Resources and Educational Services (DRES).

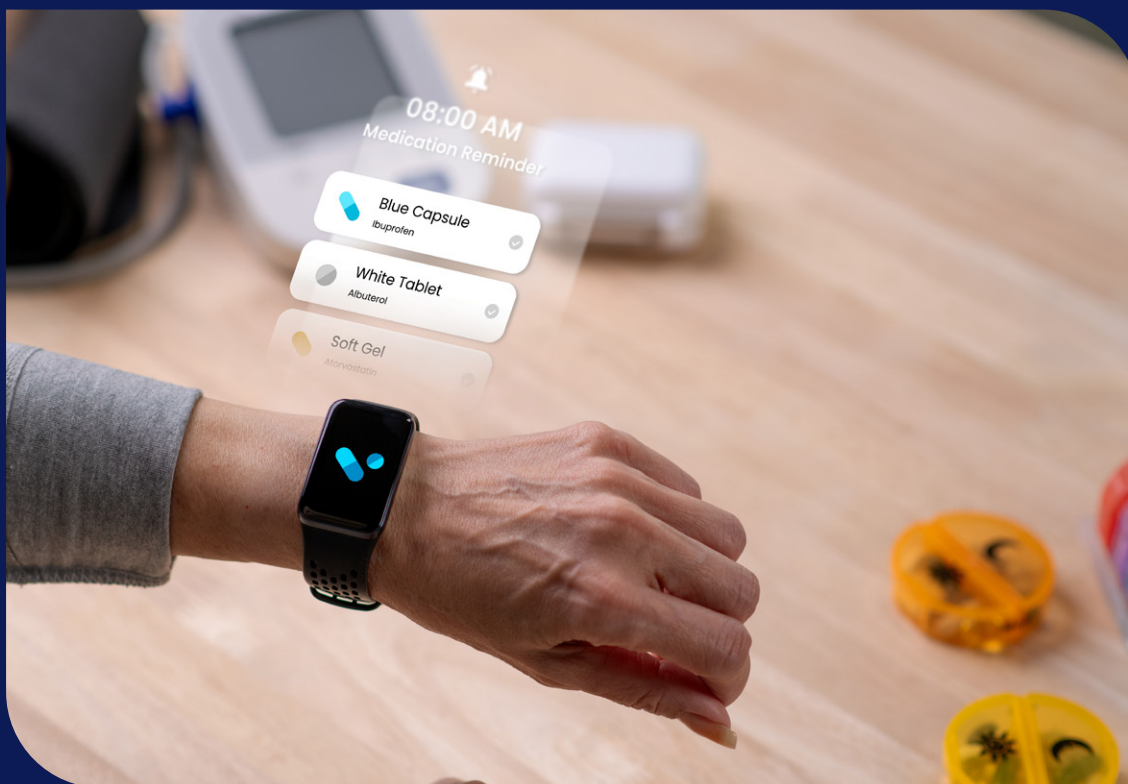
April 2025: Celebrating the end of the academic year and planning for the future.

Disability Resource Expo

In October, CARD participated as a Gold Member Sponsor at the Disability Resource Expo at Marketplace Mall in Champaign. The CARD booth aimed to recruit research participants, connect with community members and organizations and share university resources.

Steering Committee Meetings

The CARD Steering Committee met in October and April to review progress and plan future initiatives supporting disability research and community collaboration.



Collaborations in Health, Aging, Research, and Technology (CHART)

Formally launched in 2017, the Collaborations in Health, Aging, Research and Technology (CHART) research theme continues to support research efforts that promote aging successfully with technology.



In **August**, the CHART Steering Committee met at the McKechnie Family LIFE Home for their annual meeting. The committee reviewed activities from fall 2023–spring 2024 including updates from CHART-affiliated research centers, community outreach, partnerships engagement efforts, recruitment support, visiting scholars and meetings with the CHART Community Advisory Panel.

In **September**, the CHART-Illinois team met at Crystal Lake Park in Urbana, Ill., to participate in the Annual Walk to End Alzheimer's, organized by the Alzheimer's Association. With 16 members from CHART-affiliated labs, the team completed the 1.25-mile walk and joined a caregiver card-writing activity sponsored by CRIS Healthy Aging. Together, they raised \$510 to support Alzheimer's care

and research. Also in **September**, members of the CHART team attended the East Central Illinois Area Agency on Aging (ECIAAA) Annual Luncheon in Bloomington, Ill., where they engaged with community partners, explored future collaborations and gained insights into the needs of older adults and caregivers across East Central Illinois.

In **October**, CHART leadership, staff, affiliates and community partners traveled to the OPTIMIZE Aging 2.0 Conference in Louisville, Ky. In addition to the conference, the group toured the Thrive Center, a nonprofit innovation hub in downtown Louisville dedicated to promoting healthy aging through technology and education.

In **May**, the Community Advisory Panel came together to provide expert feedback on research and the Age-Friendly University website. Panelists reviewed NIH-funded projects on Medicare tools and reducing sedentary behavior, and intern Ava Pappas shared website updates.

During the **2025 spring semester**, the CHART website was redesigned to reflect the university's commitment to being designated an Age-Friendly University (AFU).



McKechnie Family LIFE Home

The mission of the McKechnie Family LIFE Home is to provide the infrastructure to support interdisciplinary research, industry collaborations, community partnerships and educational opportunities that will advance innovations in home environments.

This year's expansion of research, education and community engagement activities at the LIFE Home was marked by participation from more than 1,000 attendees. We remain committed to our vision of supporting research and development to improve the quality of life and independence for people of all ages and abilities.

RESEARCH

RESEARCH PROJECTS AND COLLABORATIONS

We have 13 active clients involving faculty from across the University of Illinois campus and two industry partners. One collaboration with Hello Robot and ClarkLindsey Village focuses on refining the assistive robot Stretch, with company representatives working onsite at the LIFE Home. Another project, launched with a CHAD Pilot Grant, partners with Hourglass Medical to develop hands-free robotic support for individuals with motor impairments. Additional projects include a robotic shower head for wheelchair users, a vision-support robot and virtual reality tools for cognitive and social engagement, supported by National Institute on Disability, Independent Living and Rehabilitation Research (NIDILRR) as well as the National Institutes of Health (NIH).



AI-INTEGRATED TECHNOLOGY UPGRADES FOR RESEARCH

The McKechnie Family LIFE Home upgraded three robots—Misty, Moxie and Stretch RE2—with generative AI for improved communication and functionality. Misty GPT now features advanced conversation and navigation, while Open Moxie integrates online and offline Large Language Models for context-aware, customizable chats across age groups. Stretch AI enables autonomous item retrieval via voice commands. These enhancements strengthen the LIFE Home's infrastructure for research, industry, community and education.

EDUCATION

As part of our mission to support education and innovation, we hosted many students this year for hands-on learning experiences. From our campus we hosted students from the Master's in Health Technology and Engineering courses focused on smart home technology and human-robot interaction. We also welcomed community college students through the Graduate College's Summer Exploration Program and a group of middle school students from Oakland STEM camp. Lastly, we had the honor of welcoming 20 Veterans from the Warrior-Scholar Project to our facility.

COMMUNITY ENGAGEMENT



Open Houses

We hosted two open houses this year, in October 2024 and April 2025. For each event, more than 75 attendees (including donors, community members, faculty members, postdoctoral researchers and students) interacted with researchers, robots and other technologies to learn about our cutting-edge research aimed at advancing health and well-being for people of all ages and abilities.



Provost Visit

We had the pleasure of welcoming John Coleman, executive vice chancellor for Academic Affairs and provost of the University of Illinois Urbana-Champaign, for his first visit to the McKechnie Family LIFE Home.



Visitors

The LIFE Home hosted 24 distinguished scholars and administrators from around the world this year, including representatives from the NSF, National Alliance for Caregiving and universities in the U.S., Taiwan, Singapore and Pakistan. Their visits fostered idea exchange and potential research collaborations to support people of all ages and abilities.

Students

CARD and CHART Interns

In spring 2025, CHART intern **AVA PAPPAS** and CARD intern **GREY KOOKEN** made significant contributions to aging and disability initiatives. Ava, an Interdisciplinary Health Sciences major, led the redesign of the CHART website to support Age-Friendly University goals and participated in key events and meetings, deepening her commitment to aging-focused care. Grey, also an Interdisciplinary Health Sciences major with a strong background in disability support, took charge of revamping the CARD newsletter, supported research recruitment and played a key role in CARD events and planning, offering thoughtful input as a valued team member.



"I learned through this internship that progress occurs not just in hospitals, but also in conference rooms, community centers and even on websites. I am so grateful to the CHART staff for making me feel as if I were part of something bigger than myself. I leave this position more curious, more compassionate and more committed than ever to serving the aging population through advocacy and innovation." *Ava Pappas, CHART intern 2025*

McKechnie Family LIFE Home Interns

The McKechnie Family LIFE Home was fortunate to host seven interns from across our campus and one from the University Laboratory High School. They came from diverse majors: computer science; autonomy and robotics; business and communication; industrial design; and interdisciplinary health sciences. McKechnie Family LIFE Home interns worked hard throughout the year to contribute to our research, education and engagement missions.

SIERRA SPECKMANN

ABBEY PAIK

YUHENG (LEO) WANG

MANAN MAHESHWARI

SRIVISHNU VUSIRIKALA

PRAACHI MUDAR

HARISH KUMAR BALAJI

VIKRAM RAJ NAGOOR KANI

Engaged Unit Program Graduate Research Assistant

The Engaged Unit Program team was privileged to have Rekha Janarthanan, from the Department of Recreation, Sport and Tourism, as our graduate research assistant this past year. Rekha took on a leadership role in the development of long-term infrastructure for publicly engaged research and teaching in the College of Applied Health Sciences.

People



Jeff Woods

DIRECTOR AND
ASSOCIATE DEAN
FOR RESEARCH



Laura Rice

ASSOCIATE DIRECTOR
AND DIRECTOR OF CARD



Wendy Bartlo

ASSOCIATE DIRECTOR
OF RESEARCH SERVICES,
RELATIONS AND
STRATEGIC INITIATIVES



Wendy Rogers

DIRECTOR OF THE
McKECHNIE FAMILY LIFE
HOME AND DIRECTOR OF
CHART



**Harshal
Mahajan**

ASSISTANT DIRECTOR OF
RESEARCH, McKECHNIE
FAMILY LIFE HOME



Heidi Krahling

GRANT PROPOSAL
SPECIALIST



**Amanda
Valentine**

GRANT PROPOSAL
SPECIALIST



Samuel Olatunji

POSTDOCTORAL RESEARCH
ASSOCIATE, McKECHNIE
FAMILY LIFE HOME



Yvona Vlach

OPERATIONS
COORDINATOR,
McKECHNIE FAMILY LIFE
HOME



**Carrie
Wennerdahl**

RESEARCH COORDINATOR

Thank you to all the people who work hard to support the work of CHAD throughout the entire year.

CHAD SENIOR FACULTY COMMITTEE

Naiman Khan (chair)

Laura Payne

Brian Monson

Shannon Mejía

Wendy Bartlo (ex-officio)

Laura Rice (ex-officio)

CARD STEERING COMMITTEE

Deana McDonagh

Emily Tarconish

Laura Mattie

Matthew Hanks

Michael Lotspeich-Yadao

Valerie Driscoll

Laura Hetrick

Mel Lion

CHART STEERING COMMITTEE

Liza Berdychevsky

Chelsey Byers

Tanya Gallagher

Kathleen Holden

Brian Pastor

Raksha Mudar

Deb Reardanz

Andiara Schwingel

Abigail Wooldridge

CHART COMMUNITY ADVISORY PANEL

Bob Boucek

Sue Boucek

Marianne Downey

Urias Betoel Escobar

Jim Fawcet

Joan Zernich

Marge Moluf

Lenny Pitt

ENGAGED UNIT COMMITTEE

Wendy Bartlo

Sadie Braun

Caitlin Clarke

Mariela Fernandez

Amy Woods

Lisa Bralts

Rekha Janarthanan

CHAD INTERNS

Ava Pappas (CHART)

Grey Kookan (CARD)

Sierra Speckmann (McKechnie Family LIFE Home)

Abbey Paik (McKechnie Family LIFE Home)

Yuheng (Leo) Wang (McKechnie Family LIFE Home)

Manan Maheshwari (McKechnie Family LIFE Home)

Srivishnu Vusirikala (McKechnie Family LIFE Home)

Praachi Mudar (McKechnie Family LIFE Home)

Harish Kumar Balaji (McKechnie Family LIFE Home)

Vikram Raj Nagoor Kani (McKechnie Family LIFE Home)

AGE-FRIENDLY STEERING COMMITTEE

Evan Alvarez

Camille Birt

Amy Brown

Dennis Cockrum

Chris Diana

Joan Dixon

Nicole Dowling

Marianne Downey

Laura Gallagher-Watkin

Jasmine Godia

Allison Haines

Sharon Harkness

Kathryn Johnson

Anna Menendez

Nicole Mitchell

Janet Soesbe

Carol Timms

Carrie Wennerdahl

Emma Woods

Jeff Woods



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