



AGING RESEARCH



IN MEMORIAM Hadley C. Ford, ScB, MBA

AFAR dedicates the 2021 Annual Report to Chair Emeritus, Hadley C. Ford, ScB, MBA.

Mr. Ford joined the AFAR board in 1990 and served as Treasurer and a member of the Executive Committee before being elected Board Chair in 1992, where he oversaw an unprecedented period of growth in the number and size of grants that were awarded. After completing ten years of service as chair, he was elected to the position of Chair Emeritus in 2003.

He continued to support AFAR as a member of our *Irving S. Wright Legacy Society.* On his planned giving to AFAR, he noted:

"I had the privilege of serving on AFAR's board for some fourteen years and the honor of chairing the board for ten years, so I have firsthand knowledge of AFAR's effectiveness and leadership in the field of aging research. Research is a cumulative business, and AFAR's strategy of advancing careers in aging research works: over 80% of researchers receiving AFAR grants remain in the field of aging research, and progress to leadership roles in the field. AFAR's long- serving and competent staff, although few in number, are simply the best in the business."

He was a retired senior vice-president and director of Booz, Allen & Hamilton, Inc. and, through his own firm, served as senior advisor to Accenture (formerly Andersen Consulting) from 1992 through 1998. He served on several other non-profit boards, including Helen Keller Worldwide, the Atlantic Salmon Federation and the English Springer Spaniel Field Trial Association Foundation. He also served on numerous public and private corporate boards, including currently the AlphaStar Insurance Group and its US subsidiary Realm National Insurance Company. Hadley was a graduate of the U.S. Naval Academy and Harvard Business School, and served as a Captain in the United States Marine Corps. He is survived by his wife, Mary.

AFAR is grateful to Hadley C. Ford's vision for the organization and ongoing dedication to aging research.

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WELCOME

In 2021, AFAR celebrated its 40th anniversary. Since 1981, AFAR's grant programs and scientific convenings have provided essential support to groundbreaking research that has defined the biology of aging and established the scientific research pipeline.

By supporting the brightest biomedical researchers focused on healthy aging for more than four decades, AFAR has nurtured the most talented scientists and physicians in the field. In doing so, AFAR has helped advance breakthroughs that will soon move into clinical trials to help us all live healthier, longer.

Across the country and around the world, AFAR is recognized as a collaborative leader in aging research. We are proud to have been selected by the National Institute on Aging to manage three, multi-year initiatives to help better connect basic scientists, health service leaders, and transdisciplinary clinicians. To this end, we hosted a series of global think tanks in 2021, which surfaced exciting recommendations to guide cross-sector opportunities and investments in geroscience.

And AFAR strives to inspire the general public about life-changing science in addition to lifestyle tips through webinars and symposia.

This report highlights AFAR's 2021 scientific programs, communications, collaborations, and commemorations—all of which are possible thanks to the dedication and generosity of donors.

This report is also interactive: throughout, look for symbols that link to videos to watch, reports to download, and readings to explore.



I hope you will be inspired by the insights of AFAR experts, promise of our grantees, and breadth of our programs; I know that I am inspired by the AFAR community of scientists and supporters who believe that we can add years of vitality to years of longevity.

Thank you for your commitment to AFAR, your passion for science, and your vision for healthy aging.

Warmest regards,

1 Jackine Lele.

Stephanie Lederman, EdM, Executive Director

SCIENTIFIC INITIATIVES

Grant Programs & Committees

Scientific Meetings

Awards of Distinction & Fellowships

NIA-Funded Initiatives

GRANT PROGRAMS & COMMITTEES



BIOLOGY OF AGING GRANTS

AFAR's Biology of Aging grant programs fuel the pipeline of researchers working to understand the basic biology of aging and age-related diseases in order to extend our years of health and decrease periods of sickness. Several grant programs help early career scientists acquire the knowledge, skills, and experience they need to obtain higher-level grants as they build a body of research. Just as critical are grants tailored to mid-career and senior investigators, which allow them to remain focused on aging as they expand their research programs. AFAR's 2021 Biology of Aging grants portfolio included:

- Glenn Foundation for Medical Research and AFAR Grants for Junior Faculty
- Glenn Foundation for Medical Research Postdoctoral Fellowships in Aging Research
- Glenn Foundation for Medical Research Breakthroughs in Gerontology (BIG) Awards
- Diana Jacobs Kalman/AFAR Scholarships for Research in the Biology of Aging
- McKnight Brain Research Foundation Innovator Awards in Cognitive Aging and Memory Loss
- The Sagol Network GerOmic Award for Junior Faculty

Read Grantee Spotlight Interviews with many of AFAR's 2021 grant recipients here

SCIENTIFIC PROCESS

AFAR's rigorous grant reviews help ensure that only the most promising scientific ideas and investigators receive our support.

Members of our Scientific Review Committees are accomplished scientists representing a wide range of expertise in biomedical research on aging. Many are also past AFAR grantees, and they play an important role in identifying the talent and research that AFAR supports.

Each year, they volunteer their time and expertise to review hundreds of grant applications and select scientists and research projects that have the greatest likelihood of making significant contributions to help us stay healthier longer as we grow older.

We are grateful for our reviewers' contributions, which are essential to the success of AFAR's grant programs.



The Chairs and Members of our 2021 Review Committees are listed with their respective grant programs on the following pages.

Additionally, AFAR National Scientific Advisory Council (NSAC) members lend their scientific expertise to our grant review process.



Review the complete list of AFAR's 2021 National Scientific Advisory Council here

GLENN FOUNDATION FOR MEDICAL RESEARCH AND AFAR GRANTS FOR JUNIOR FACULTY

Rachel Arey, PhD Assistant Professor Baylor College of Medicine

Annika Barber, PhD Assistant Professor Rutgers, the State University of New Jersey

Kristopher Burkewitz, PhD Assistant Professor Vanderbilt University

Chi-Kuo Hu, PhD Assistant Professor Stony Brook University

Janine Kwapis, PhD Assistant Professor Pennsylvania State University Lolita Nidadavolu, MD, PhD Assistant Professor Johns Hopkins University

Kosaku Shinoda, PhD Assistant Professor Albert Einstein College of Medicine

Reyhan Westbrook, PhD Instructor Johns Hopkins University

Christopher Wiley, PhD Scientist II, Assistant Professor Tufts University

Tuoqi Wu, PhD Assistant Professor University of Texas Southwestern Medical Center

Selection Committee

Dena Dubal, MD, PhD, *Chair* University of California, San Francisco

Dudley Lamming, PhD University of Wisconsin-Madison School of Medicine and Public Health

Yousin Suh, PhD Columbia University Zoltan Ungvari, MD, PhD University of Oklahoma Health Science Center

Amy Wagers, PhD Harvard University

Jonathan Wanagat, MD, PhD University of California, Los Angeles

AFAR is grateful to the Glenn Foundation for Medical Research for its support of this grant program. Other major funders include: The AFAR Board of Directors, Proceeds from AFAR's 2019 Dinner, Anonymous, The James A. and Dorothy R. Brunn Foundation, the Irene Diamond Fund, the Ellison Foundation, David W. Gore, the Irving Kahn Fund, Diana Jacobs Kalman, Diane Nixon, and The Irving S. Wright Endowment.

"AFAR's support has helped me through critical junctures as a young investigator allowing me to stay focused on gerontology. The Junior faculty grant I received is invaluable to me and will help me not only perform this important research but also support my career progression into an independent gerontologist."

- Reyhan Westbrook, 2021 Junior Faculty Grantee

GLENN FOUNDATION FOR MEDICAL RESEARCH POSTDOCTORAL FELLOWSHIPS IN AGING RESEARCH

Yann Cormerais, PhD Postdoctoral Fellow Harvard T.H. Chan School of Public Health

Madison Doolittle, PhD Postdoctoral Fellow Mayo Clinic

Sooyeon Lee, PhD Postdoctoral Scholar Stanford University

Claire Leveau, PhD Postdoctoral Associate Yale University

Yuancheng Lu, PhD Postdoctoral Researcher Whitehead Institute for Biomedical Research, MIT

Pradeep Ramalingam, MD, PhD Research Associate Hackensack University Medical College

Selection Committee

Thomas Rando, MD, PhD, *Chair* Stanford University

Meng Wang, PhD Baylor College of Medicine

Ashley Webb, PhD Brown University

Marc Vermulst, PhD University of Southern California

Saul Villeda, PhD University of California, San Francisco

Holly Van Remmen, PhD Oklahoma Medical Research Foundation

AFAR is grateful to the Glenn Foundation for Medical Research for its support of this grant program.

Anand Saran, PhD Postdoctoral Fellow University of California San Diego

Tina Sing, PhD Postdoctoral Fellow University of California Berkeley

Yuting Tan, MD, PhD Postdoctoral Scholar Stanford University

Lei Zhang, PhD Research Associate University of Minnesota

Zeda Zhang, PhD Research Scholar Sloan Kettering Institute

> "AFAR has been and continues to be a major supporter to the aging research field. As a postdoctoral researcher, receiving an AFAR grant at this stage of my career is an honor and I am motivated to use this prestigious award to accelerate my own aging research while developing a research program for my own future lab."

- Tina Sing, 2021 Postdoctoral Fellow



GLENN FOUNDATION FOR MEDICAL RESEARCH BREAKTHROUGHS IN GERONTOLOGY (BIG) AWARDS

Bradley Olwin, PhD Professor University of Colorado Andrey Tsvetkov, PhD Assistant Professor The University of Texas McGovern Medical School at Houston

Selection Committee

David Marcinek, PhD, *Chair* University of Washington Medical Center

Veronica Galvan, PhD UT Health San Antonio

Vera Gorbunova, PhD University of Rochester William Mair, PhD Harvard T.H. Chan School of Public Health

Sofiya Milman, MD, MSc Einstein College of Medicine

Satchinanda Panda, PhD The Salk Institute

GLENN FOUNDATION FOR MEDICAL RESEARCH



AFAR is grateful to the Glenn Foundation for Medical Research for its support of this grant program.

"The BIG award will allow my lab to pursue a completely unexpected experimental result that we have been working on for some time with limited funding. With the BIG award I believe we will solve the underlying mechanism for how changes in rare muscle stem cells improve entire muscle strength over a short time. I hope then to move this knowledge to clinical development."

- Bradley Olwin, 2021 BIG Awardee



DIANA JACOBS KALMAN/AFAR SCHOLARSHIPS FOR RESEARCH IN THE BIOLOGY OF AGING

Mariah Calubag University of Wisconsin-Madison

Laura Campbell University of California San Diego

Matthew Engel Albert Einstein College of Medicine

Nathan Gasek University of Connecticut

Evelynn Henry University of Michigan

Shiying Liu Case Western Reserve University Matthew Park Icahn School of Medicine at Mount Sinai

Jaimin Patel The Johns Hopkins University School of Medicine

Ari Schaler University of California Los Angeles

Alice Tao Weill Cornell Medicine

Blake Torrance UConn Health

Marina Watowich University of Washington

Selection Committee

Nathan LeBrasseur, PhD, MS, *Chair* Mayo Clinic

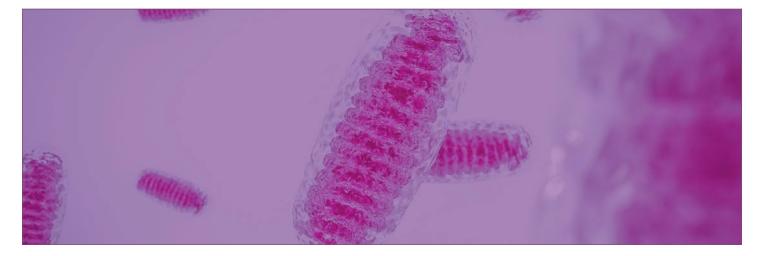
Todd Cohen, PhD University of North Carolina at Chapel Hill

Anna Csiszar, MD, PhD University of Oklahoma Health Sciences Center

Radek Dobrowolski, PhD Rutgers University Christina Hugenschmidt, PhD Wake Forest School of Medicine

Isha Jain, PhD University of California San Francisco

Jason Karpac, PhD Texas A&M University



THE MCKNIGHT BRAIN RESEARCH FOUNDATION INNOVATOR AWARDS IN COGNITIVE AGING AND MEMORY LOSS

In 2021, AFAR and the McKnight Brain Research Foundation (MBRF) launched a new grant award program, The McKnight Brain Research Foundation Innovator Awards in Cognitive Aging and Memory Loss.

This new program will support six outstanding mid-career investigators over a period of five years, advancing studies focusing on clinical translational research and understanding basic biological mechanisms underlying cognitive aging and age-related memory loss.

The inaugural 2021 recipients were:

Lindsay De Biase, PhD University of California Los Angeles

Saul Villeda, PhD University of California San Francisco



"As a relatively new investigator, grant support from the McKnight Brain Research Foundation and AFAR allows us to use cutting-edge approaches to link our cellular and molecular-level findings with cognitive performance and behavior. I am honored to receive this support, and I am very excited by the potential of this new line of investigation to expand our understanding of how non-neuronal cells shape cognitive aging."



- Lindsay De Biase, 2021 MBRF/AFAR grant recipient

THE SAGOL NETWORK GEROMIC AWARD FOR JUNIOR FACULTY

Junyue Cao, PhD Assistant Professor The Rockefeller University

Selection Committee

Catherine Kaczorowksi, PhD, *Chair* The Jackson Laboratory

Vyacheslav (Slava) Labunskyy, PhD Boston University School of Medicine

Paola Sebastiani, PhD Tufts University



THE SAGOL NETWORK

PHYSICIAN TRAINING GRANTS

AFAR's Physician Training grant programs help faculty researchers and medical students become academic and clinical leaders prepared to meet the increasing healthcare needs of an ever-growing older population. The necessity to sensitize physicians to the needs of older patients could not be clearer, and AFAR's Physician Training grants strengthen the research that will help older Americans stay healthier, longer.

THE PAUL B. BEESON EMERGING LEADERS CAREER DEVELOPMENT AWARDS IN AGING (K76)

Courtney Balentine, MD, MPH Assistant Professor University of Texas Southwestern

Scott Bauer, MD, ScM Assistant Professor of Medicine and Urology University of California San Francisco

Kavita Dharmarajan, MD Associate Professor, Radiation Oncology Geriatrics and Palliative Medicine Icahn School of Medicine at Mount Sinai

Jason Falvey, PT, DPT, PhD Assistant Professor University of Maryland School of Medicine

Lauren Hunt, PhD, RN, FNP-BC Assistant Professor University of California San Francisco

Elissa Kozlov, PhD Instructor of Health, Behavior, Society and Policy Rutgers School of Public Health Brienne Miner, MD, MHS Assistant Professor of Medicine Yale University

Carolyn Presley, MD, MHS Assistant Professor The Ohio State University Comprehensive Cancer Center

Carmen Quatman, MD, PhD Associate Professor The Ohio State University Wexner Medical Center

Carolyn Seib, MD, MAS Assistant Professor Stanford University School of Medicine

Sachin Shah, MD, MPH Assistant Professor University of California San Francisco

2021 Beeson Scholars are fully funded through the National Institute on Aging (NIA) of the National Institutes of Health (NIH). The Beeson Annual Meeting is supported through The John A. Hartford Foundation and the NIA.

MEDICAL STUDENT TRAINING IN AGING RESEARCH (MSTAR) SCHOLARSHIPS

Funded at Weill Cornell Medicine

Sanam Bhatia Hannah Hwang Esther Liu

MSTAR Students are privately funded at Weill Cornell Medicine with the support of Network for Good, Earl (Trip) and Allyson Samson, Norm Volk, and the Kathryn Wriston Fund.

TO DATE, AFAR HAS GRANTED MORE THAN **\$189 MILLON** TO OVER **4,300** RESEARCHERS

SCIENTIFIC MEETINGS

Grantee Conference

AFAR hosted its 2021 annual grantee conference virtually on October 5 and 6. AFAR grantees, senior leaders in the field, and representatives from foundations convened online to hear about the most recent research, and to share insights on emerging directions in the field. The meeting provided valuable opportunities for the attendees to learn from each other's work and to engage in discussions and consider potential collaborations.

The Grantee Conference was held in conjunction with the New Investigator Awards in Alzheimer's Disease annual meeting. The meeting convened recipients of the New Investigator Awards in Alzheimer's Disease funded through AFAR and The Rosalinde and Arthur Gilbert Foundation, as well as recipients of the Small Research Grant Program for the Next Generation of Researchers in Alzheimer's Disease (R03) funded through the National Institute on Aging (NIA).













Speakers included (left to right, above): Rozalyn Anderson, PhD; Brittany N. Dugger, PhD; Shin-ichiro Imai, MD, PhD; William Mair, PhD; Linda Van Eldik, PhD; and David Walker, PhD.

The Datablitz presentations were a highlight of the meetings. Grantees presented their research in six minutes or less in breakout sessions. These sessions are fast-tracked vehicles to learn about each other's research and identify possible synergies.



Download the full agenda for the 2021 AFAR Grantee Conference / New Investigators in Alzheimer's Disease meeting here

Beeson Annual Meeting

The 2021 Beeson Annual Meeting was held virtually on November 18 and 19, bringing together recent and alumni recipients of the Paul B. Beeson Emerging Leaders Career Development Awards in Aging (K76), mentors, and senior researchers, as well as government and foundation officials. The meeting included scientific sessions as well as opportunities for networking and mentorship.

In collaboration with the National Institute on Aging (NIA) and the John A. Hartford Foundation, AFAR developed the Beeson program to recruit talented new investigators who have begun to establish research programs and are willing to take an active leadership role in transformative change that will lead to improved health care outcomes.



Watch a recording of the 2021 Beeson Annual Meeting and download presentation slides here

"I am always in complete awe of the Beesons' work and also how amazing they are at presenting! Definitely a highlight! Also, it really gives me something to strive for in my progression."

- Beeson Annual Meeting attendee

AWARDS OF DISTINCTION

Each year, AFAR presents three honorary scientific awards to members of the aging research community whose outstanding work advances the field. These awards are named after visionary scientists whose leader-ship continues to inspire AFAR and the field.







Malene Hansen, PhD, received the Irving S. Wright Award of Distinction. This award is named in honor of AFAR's founder and recognizes exceptional contributions to basic or clinical research in the field of aging. Established in 1982, the award is a framed citation and carries a cash prize of \$5,000. A four-time AFAR grantee, Dr. Hansen is the Chief Scientific Officer and a Professor at the Buck Institute for Research on Aging, Novato, CA, as well as an Adjunct Professor at Sanford Burnham Prebys Medical Discovery Institute, La Jolla, CA.

Morgan Levine, PhD, received AFAR's Vincent Cristofalo Rising Star Award in Aging Research. This award is named in honor of the late Dr. Cristofalo, who dedicated his career to aging research and to encouraging young scientists to investigate important problems in the biology of aging. Established in 2008, the award is a framed citation and carries a cash prize of \$5,000. Dr. Levine is an Assistant Professor Adjunct in Pathology at the Yale School of Medicine and Principal Investigator at the San Diego Institute of Science of Altos Labs.

Andrea Gilmore-Bykovskyi, PhD, RN, received the Terrie Fox Wetle Rising Star Award in Health Services and Aging Research. The award is named after AFAR board member Terrie Fox Wetle, PhD, who has devoted her professional career to acting as a strong advocate for multi-disciplinary and multi-method investigations centered on aging, public health, and health care. This award honors an early or mid-career health services researcher who has already made important contributions with work that respects the value of multidisciplinary health services science and that is likely to be highly influential in shaping practice and research for decades to come. The award is a framed citation and carries a cash prize of \$5,000. Dr. Gilmore-Bykovskyi is the Deputy Director, UW Center for Health Disparities Research (CHDR); Informatics Lead, Care Core, Wisconsin Alzheimer's Disease Research Center; and an Assistant Professor, University of Wisconsin-Madison School of Nursing.

Each award recipient presented a lecture at the Annual Meeting of the Gerontological Society of America in November 2021.

- Dr. Hansen presented the lecture, "Cellular recycling: role of autophagy in aging and disease."
- Dr. Levine presented the lecture, "DNA methylation landscapes in aging."
- Dr. Gilmore-Bykovskyi presented the lecture, "Progress in investigating social and behavioral communication patterns among individuals with moderate to advanced dementia, particularly in minority and diverse populations."



CLARENCE PEARSON FELLOWSHIP IN PUBLIC HEALTH AND AGING

AFAR's Clarence Pearson Fellowship in Public Health and Aging program provides future leaders in public health, communications, and related academic fields with exposure to a range of policy, administration, research, and engagement opportunities to better serve the growing older population. In 2021, two Pearson Fellows contributed research and publications.

Pearson Fellow Ilana Mittleman, an MPH candidate at Columbia University, worked with AFAR to create an international directory of labs focused on the biology of aging, establishing a foundation for researchers to acquire information about top researchers around the globe.

Pearson Fellow Adwoa Nantwi, MPH, of New York University, worked with AFAR to publish a two-part series, capturing insights from leading public health researchers and gerontologists, including AFAR Board Members Richard Besdine, MD, Mark S. Lachs, MD, MPH, and Terri Fox Wetle, PhD, exploring how systemic health disparities have led to disproportionate impacts within vulnerable communities during the COVID-19 pandemic.

Download the complete report or individual sections below:



Full Report: An Examination of Health Disparities in the Aging Population During COVID-19



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Part I: Spotlight on How COVID-19 Has Brought Racial Inequities to the Forefront in Older Adults

Part II: Highlighting the Impact of Inequities in Nursing Homes During COVID-19

AFAR is grateful to Laurie Norris for her ongoing support honoring the legacy of Clarence Pearson through this fellowship.



NIA-FUNDED INITIATIVES



National Institute on Aging

NATHAN SHOCK CENTERS COORDINATING CENTER



NATHAN SHOCK CENTERS OF EXCELLENCE IN THE BASIC BIOLOGY OF AGING AFAR serves as the Coordinating Center for the eight Nathan Shock Centers, which provide leadership and technical support in the pursuit of basic research into the biology of aging. The Coordinating Center provides coordination and communication between the Nathan Shock Centers, the NIA, and the biology of aging research community.

Symposia and Webinars



On June 23, The Nathan Shock Centers Coordinating Center hosted a free webinar on **Best Practices** for Using Animals in Aging Research.



Watch a full recording of the webinar here

On July 20, the Nathan Shock Centers of Excellence Annual Symposium was held as part of the American Aging Association's 49th Annual Meeting. The hybrid event was hosted in Madison, WI, and featured presentations from Nathan Shock Center Directors Nir Barzilai, MD; Thomas Buford, PhD; Sean Curran, PhD; Matt Kaeberlein, PhD; Vivek Kumar, PhD; Adam Salmon, PhD; Gerald Shadel, PhD; and Holly Van Remmen, PhD.



Watch recordings of all presentations here

Journal

In October, the Nathan Shock Centers Coordinating Center and the eight Centers were featured in a special issue of the journal **GeroScience**. The articles highlight each center and the themes of their core resources.





Read GeroScience journal's Nathan Shock Centers special issue here

www.nathanshockcenters.org

RESEARCH CENTERS COLLABORATIVE NETWORK



RESEARCH CENTERS COLLABORATIVE NETWORK of the National Institute on Aging, NIH

The Research Centers Collaborative Network (RCCN) aims to initiate new cross-disciplinary collaborative networks that bring together key thought leaders from each of the six NIA center programs (right). AFAR and Wake Forest University School of Medicine co-manage the RCCN. The RCCN aims to support multi-disciplinary efforts in aging research; actitivies include workshops and webinars, pilot programs, early career faculty education, web-based resource identification tools, and fundraising development.

- Alzheimer's Disease Research Centers
- Centers on the Demography and Economics of Aging
- Claude D. Pepper Older Americans Independence Centers
- Nathan Shock Centers of Excellence in the Basic Biology of Aging
- Resource Centers for Minority Aging Research
- Roybal Centers for Translational Research on Aging

Pilot Awards

RCCN Pilot Awards fund projects developed based on research priorities identified in recent RCCN workshops. Projects involve multiple NIA-sponsored research centers to foster new and interdisciplinary collaborations. The RCCN Pilot Awards for 2021 focused on Grants on Life Course Perspectives on Aging and Resilience and Reserve in Aging.



Learn more about the RCCN Pilot Award recipients here

Webinars

On March 17, the RCCN hosted a webinar on **Social Media as a Tool for Career Development.** Emmy Betz, MD, MPH; Anand Iyer, MD, MSPH; Alex Smith, MD; and Wynn Tranfield, MLIS, presented. Jay Magaziner, PhD, MSHyg, moderated.



Watch a full recording of the webinar here

On June 30, an RCCN webinar on The Long-Life Family Study: Resources and Discoveries in Human Aging featured presentations from Stacy Andersen, PhD; Nancy Glynn, PhD; Michael Province, PhD; Paola Sebastiani, PhD; and Mary Wojczynski, PhD, MPH. Jay Magaziner, PhD, MSHyg, moderated.

Workshops

On February 23-24, the RCCN hosted Inclusion of Older Adults in Clinical Research. The workshop identified several systemic and structural factors which together impede the inclusion of older adults. These include policies around promoting inclusion, unnecessarily restrictive inclusion/exclusion criteria, IRB attitudes towards the frail or cognitively impaired, lack of institutional resources and support to address common barriers to older adults' research participation, and physical environments that are not adequately age-friendly.



Watch recordings of presentations here



Watch a full recording of the webinar here

www.rccn-aging.org

CLIN-STAR COORDINATING CENTER



The NIA-funded Clin-STAR Coordinating Center is a national platform for transdisciplinary clinicianscientists focusing on aging research. The Clin-STAR Coordinating Center organizes activities and provides resources for the cultivation, connection, and synergy of clinician-scientists in aging research from disparate specialties across the US. The program focuses particularly on early-stage investigators committed to careers in aging research. AFAR serves as the Clin-STAR National Program Office.

2021 Clin-STAR Initiatives (hyperlinked in bold titles below)

- The Clin-STAR Database, with 540 profiles to date, was developed for transdisciplinary researchers across specialties doing aging research. At no cost, researchers can set up a profile and browse information on researchers and their institutions, publications, and grants, and interactive graphics displaying connections by disciplines, publications, and research areas
- **Pilot Grants** bridging junior and senior researchers from different disciplines and institutions in order to stimulate new collaborations focused on the development of clinical aging research projects
- Monthly Mentoring Office Hours connecting early career clinician-scientists with senior mentors for oneon-one, confidential conversations about career development in aging research
- Webinars discussing strategies to prevent missing data in primary data collection, understanding and incorporating missing data into biostatistical analyses, and more
- Annual Meeting, held virtually in November, with plenary keynote and panel talks and career development breakout sessions
- Outreach Funds, application process opened to be awarded in 2022, to support:

Mini-Sabbatical Support: Funds for short-term, immersive, learning experiences

Visiting Professor Travel Fund: Bring a visiting professor to an institution to expose clinician-scientists to aging research (eg, grand rounds, mentoring trainees, interactive clinical rounds, interest group)

Distinguished Professorship Fund: Invite a researcher in geriatrics/gerontology to speak and participate at a specialty or subspecialty professional conference

Early Career Lecture Fund: Travel funds for early career clinician-scientists to present aging-related research at an annual scientific or medical specialty association meeting where aging-related research is not the primary focus

The Clin-STAR website provides a range of resources and updates, including:

- Funding, Research, and Career Development Resources for clinician-scientists
- Journey Stories presenting stories of transdisciplinary clinician-scientists who took non-traditional paths to becoming aging researchers

www.clin-star.org

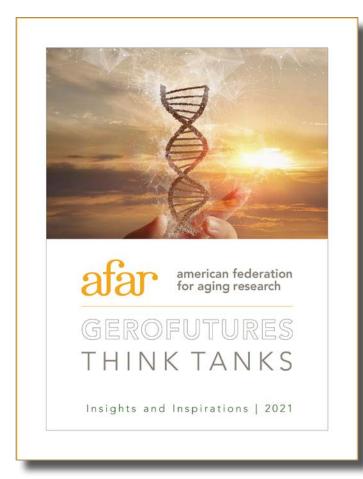
COLLABORATIONS & COMMUNICATIONS

GeroFutures Think Tanks & Report

Webinars

Media Highlights

GEROFUTURES THINK TANKS AND REPORT



From May to October of 2021, AFAR's International Activities Task Force brought together global leaders across a variety of sectors for a series of GeroFutures Think Tanks.

Experts across biotech, biology, philanthropy, and private sectors convened to explore gaps and opportunities in research, therapeutics, and collaboration, sharing their insights and wrestling with tough questions about the main challenges and most promising collaborations in the field.

The three Think Tanks explored the following topics:

- Supporting Basic Science and Geroscience
- Inviting Investment in Gerotherapeutics
- Preparing the Translational Research Pipeline

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Insights and recommendations are captured in a GeroFutures Think Tanks Report, available for download, here

UK LONGEVITY WEEK

On November 17, AFAR co-sponsored an event, "Investing in the Age of Longevity," held in conjunction with UK Longevity Week, organized by board member Jim Mellon in London. AFAR Scientific Director Nir Barzilai, MD, Board Member Richard G. A. Faragher, PhD, and President James L. Kirkland, MD, PhD, presented.





WATCH | Dr. Faragher's presentation, "The Geroscience Promise: How we age and what we can do about it," here



WATCH | Dr. Kirkland's presentation, "Senolytics," here



WATCH | Dr. Barzilai's presentation, "TAME: A Concrete Plan to Pave the Way for Targeting Aging," here

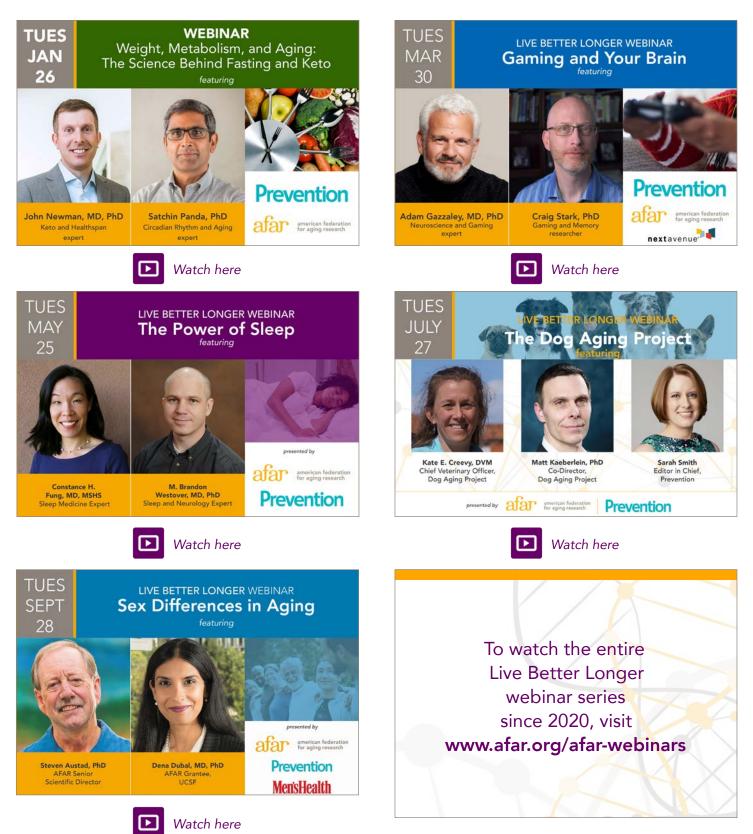


WATCH | Dr. Faragher's presentation, "AFAR GeroFutures Think Tanks," here

LIVE BETTER LONGER WEBINARS

Prevention

AFAR continued its Live Better Longer series with *Prevention* magazine. The engaging conversations paired AFAR experts with *Prevention's* Editor-in-Chief Sarah Smith to discuss the science behind a range of lifestyle interventions and tech innovations to promote healthy aging.



GRANTMAKERS IN AGING WEBINARS

THURS APRIL 8

WEBINAR The Science Behind COVID-19 Vaccines:

lishing Clinical Foundations & Addressing Common Misconceptions

Thurs 7.22 / WEBINAR

Therapy Dogs, Pets, and Healthy Aging: The Research Behind the Impact featuring

presented by afar american federal







Nir Barzilai, MD

Steve Austad, PhD

Laura Haynes, PhD UConn Center on Aging

Kenneth Schmader, MD Education and Clinical Center, Duke University School of Medici

Nancy Gee, PhD

Vira

ers in Aging



On April 8, AFAR and Grantmakers in Aging (GIA) presented a webinar on the science behind the development and distribution of COVID-19 vaccines featuring presentations from AFAR Scientific Director Nir Barzilai, MD, as well as Laura Haynes, PhD, and Kenneth Schmader, MD.



THE GOOD DOG FOUNDATION dogs helping humans heal

On July 22, the Good Dog Foundation joined AFAR and GIA to co-host a webinar discussing the benefits of therapy dogs for older adults upon early diagnosis of cognitive issues and dementia. The webinar featured presentations by AFAR Senior Scientific Director Steven Austad, PhD, as well as researchers Jessica Bibbo, PhD, and Nancy Gee, PhD, and philanthropic leaders Lisa Orloff and Carol Gallo.

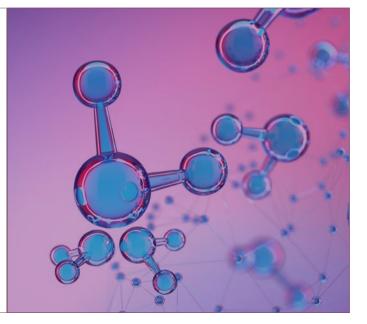


Watch here

"I was absolutely mesmerized by this event! I was grateful to have been included as a guest listener. I have come away from this webinar feeling as if I learned more about myself and aging because of the presentations given by the distinguished speakers.

Jessica Bibbo, PhD

- Webinar attendee

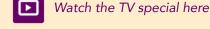


MEDIA HIGHLIGHTS

In addition to regularly publishing new breakthrough research in the most respected scientific journals, AFAR experts lend their insights on aging to popular media sources. We are happy to share 2021 highlights below.



CBS Sunday Morning hosted a primetime special highlighting some of the latest breakthroughs in aging research. The show was hosted by Emmy-award winning journalist Jane Pauley. Several AFAR board members and grantees were featured, including Senior Scientific Director Steven Austad, PhD, and Scientific Director Nir Barzilai, MD.





Multiple AFAR grantee Matt Kaeberlein, PhD, published an op-ed in *The Hill* calling for increased public and private investment in geroscience to assure all can benefit from advances in research and therapeutics to extend healthspan.



Read the op-ed here

The New York Times Sunday Magazine focused a special issue on "The Secrets of Longevity," featuring insights and research from several AFAR Board members, including Steven Austad, PhD; James L. Kirkland, MD, PhD; S. Jay Olshansky, PhD; and David Sinclair, PhD. Debunking the perception that aging research aims to extend lifespan to immortality, AFAR experts emphasized the goal of expanding healthspan. They also discussed the development of therapeutics to target the biology of aging and age-related disease.



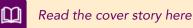
Read the special issue here

The Washington Post

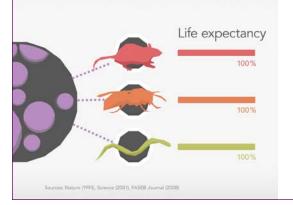


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A Health section cover story in *The Washington Post* featured AFAR's Scientific leadership—Steven N. Austad, PhD, Nir Barzilai, MD, and James L. Kirkland, MD, PhD—discussing the TAME Trial, senolytics, and gerotherapeutics.



For AFAR news, follow AFARorg on Facebook and Twitter or visit afar.org/news



AFAR released an update to the animated video, "Live Longer, Live Well." Designed by acclaimed, UK-based data journalist David McCandless with Beyond Words Studio and created with the support of the Glenn Foundation for Medical Research, the 4-minute clip poses how a 'Better World for Older People is a Better World for Everyone,' thanks to aging research.



Watch "Live Longer, Live Well" here

40TH ANNIVERSARY CELEBRATION

The Future Is Now: Innovations in AI and Big Data for Healthspan and Longevity Symposium

Science Is Vital Symposium

Science Is Vital Vision Report

40TH ANNIVERSARY SYMPOSIA





On February 9, AFAR kicked off its 40th anniversary celebration with a special symposium and award ceremony, "The Future Is Now: Innovations in AI and Big Data for Healthspan and Longevity." This virtual, global event was held in honor of innovative philanthropist, geroscience investor, and AFAR Board Member Sami Sagol.

The symposium opened with a scientific panel on GerOmics and Aging Research, discussing how artificial intelligence, big data, and systems biology can help advance therapeutics. This panel was led by AFAR Scientific Director Nir Barzilai, MD, and featured researchers Morgan Levine, PhD, and Amos Tanay, PhD. A conversation between Logitech CEO Bracken Darrell and AFAR Board Member David Sinclair, PhD, on how the innovations of today can shape aging in the future, followed. Lastly, Oscar Vivas, PhD, the inaugural recipient of the Sagol Network GerOmic Award for Junior Faculty, presented his research.



Watch "The Future Is Now" symposium here

40TH ANNIVERSARY SYMPOSIA



On November 3, AFAR continued its 40th anniversary celebration with an online symposium and ceremony, "Science Is Vital." The event kicked off with an AFAR expert panel discussing geroscience, gerotherapeutics, and the impact of COVID, moderated by Board Member Pol Vandenbroucke, MD, and featuring Deputy Scientific Director Nir Barzilai, MD; Board Member Ana Maria Cuervo, MD, PhD; and President James L. Kirkland, MD, PhD; as well as Linda P. Fried, MD, MPH, Dean of Columbia University's Mailman School of Public Health. Stuart Firestein, PhD, author of *Failure: Why Science Is So Successful*, discussed the path to scientific discovery and innovation.

The program closed with an award presentation to Mikael Dolsten, MD, PhD, Chief Scientific Officer and President of Worldwide Research, Development, and Medical of Pfizer. Dr. Dolsten was joined in conversation with former NIH Director Francis S. Collins, MD, PhD, moderated by AFAR Senior Scientific Director Steven Austad, PhD. The esteemed leaders discussed how the Accelerating Medicines Partnership between Pfizer and the NIH helped provide a roadmap for the ACTIV Partnership Against COVID-19 and touched on the various lessons learned from the success of a full range of vaccines against COVID-19 and their implications for the future.

AFAR is grateful for this event's sponsors: James Appleby, Nir and Laura Barzilai, Charles Beever, the Besdine Wetle Family Foundation, Harvey J. Cohen, Ann Connolly, Diana Jacobs Kalman, James L. Kirkland, the Sidley Austin Foundation, Barry Weisfeld, and Joyce Yaeger.



Watch the "Science Is Vital" sympsosium here

40TH ANNIVERSARY VISION REPORT



On the occasion of AFAR's 40th anniversary, we also published a special vision report, "Science Is Vital." The report looked ahead at the promising future of healthy aging built on decades of AFAR-supported science.

Through the insights of AFAR's scientific and board leadership, grantees, and peers, the report spotlights early pioneers and leadership who helped strengthen our mission and highlights the major breakthroughs in aging research driven by AFAR experts. Additionally, our scientific leadership outlines what's needed, next, to support the research pipeline and advance geroscience and gerotherapeutics to help us all live healthier, longer.

The report closes with a range of predictions from AFAR experts and colleagues on the future of healthy aging and geroscience.



Download our 40th Anniversary Vision Report here

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AFAR is deeply grateful for the generous support of our donors.

Their continued contributions enable us to fulfill our mission and strengthen our programs.

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IRVING S. WRIGHT LEGACY SOCIETY

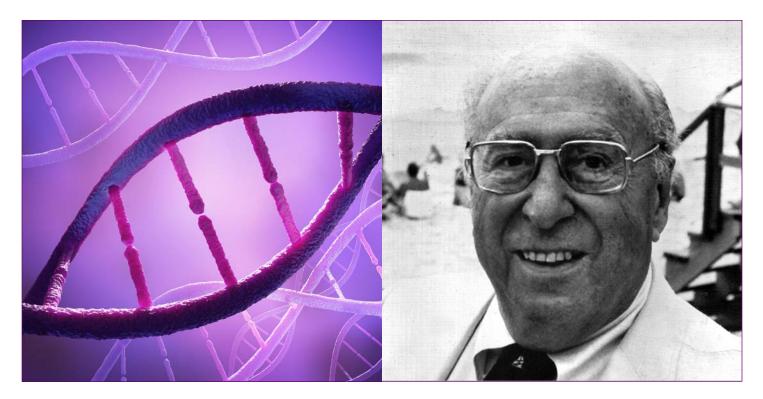
Named in honor of AFAR's founder, the Irving S. Wright Legacy Society is an honorary society created to recognize and thank individuals who make a planned gift to AFAR.

AFAR thanks the individuals who have named AFAR in their estate plans:

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"We are tackling the greatest health problem of today and the coming years the innumerable and complex disabilities of the aging population."

- Irving S. Wright, MD, in an AFAR newsletter, 1981

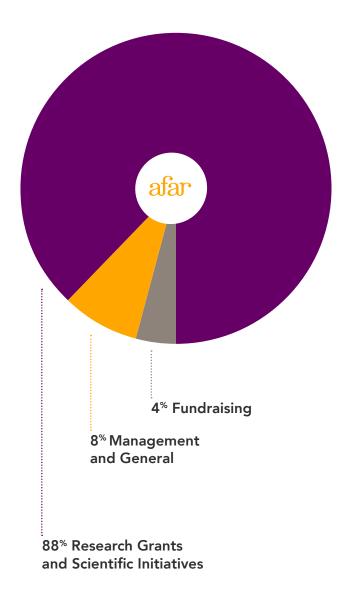


WHEN YOU **SUPPORT AFAR,** YOU SUPPORT RESEARCH THAT WILL HELP US ALL **LIVE HEALTHIER, LONGER.**

AFAR offers a range of **GIVING OPPORTUNITIES**:

- Make a gift to underwrite or endow a named research grant. Naming opportunities in support of AFAR research grants or disease-specific grants are available at multiple levels of giving. AFAR can also help design grant programs.
- Make a gift to our **annual fund**, the central vehicle for supporting our core research grant programs. Gifts may be made annually, as well as monthly and quarterly as a sustaining donor.
- **Sponsor a scientific conference** or educational program. Opportunities for sponsorship are available at many levels.
- Make a planned gift as a member of the Irving S. Wright Legacy Society.
- Make a memorial or a tribute gift to honor a loved one or special occasion.
- Make a **gift of stock** or other tangible property. This is a win-win: while supporting aging research, you avoid paying capital gains taxes.
- Designate AFAR as the recipient of your **donor advised fund**.

To make a gift to AFAR online, please visit our secure website **WWW.AFAR.ORG/GIVE.**



AFAR is proud to maintain high fiscal standards internally, and we require the same of our grantee institutions.

SUMMARIZED OPERATING RESULTS

Research Grants and Scholarships Payable

OPERATING REVENUE

Contributions	5,805,858	78%
Investment Income, Net	3,628 373,846	5%
Endowment Earnings Government Grants	1, 237,556	17%
Total Operating Revenue	7,420,888	100%
	7,420,000	100
EXPENSES		
Research Grants and Scientific Programs	6,509,983	88%
Management and General	591,155	8%
Fundraising	321,928	4%
Total Supporting Expense	913,083	12 %
Total Operating Expense	7,423,066	100%
Total Operating Surplus	(2,178)	
SUMMARIZED BALANCE SHEET		
Assets	7 768 167	26%
Assets Cash and equivalents	7,768,167	26 [%] 22 [%]
Assets	6,651,070	
Assets Cash and equivalents Contributions Receivable		22%
Assets Cash and equivalents Contributions Receivable Investments	6,651,070 13,669,188	22% 46 [%]

For the tenth consecutive year, AFAR has earned a 4-star rating from Charity Navigator, America's largest and most-utilized independent evaluator of charities. This is the highest possible rating and shows that AFAR adheres to sector best practices and executes its mission in a financially efficient way. Only 8% of the charities evaluated by Charity Navigator have received at least six consecutive 4-star evaluations, indicating that AFAR outperforms most other charities and exceeds industry standards.



2,694,847

2,905,287

7,247,896

19,861,617

27,109,513

30,014,800

210,440

9%

1%

10%

27%

73%

90%

100%

Other

Total Liabilities

Total Net Assets

Without Donor Restrictions

Total Liabilities and Net Assets

With Donor Restrictions

Net Assets

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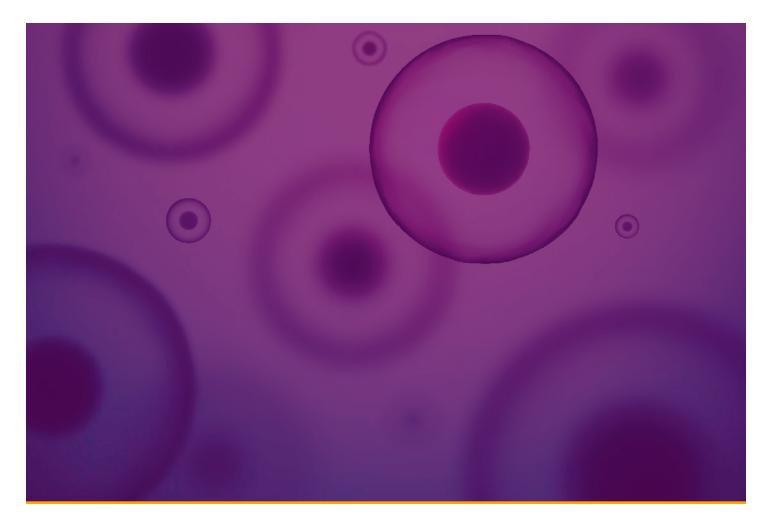
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