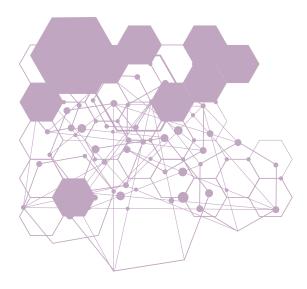


2019 ANNUAL REPORT + COVID-19 RESPONSE





In Dedication:



AFAR dedicates this report to Paul F. Glenn (1930 - 2020).

A visionary in the field of aging research, long-time collaborator, and admired friend, Mr. Glenn founded the Glenn Foundation for Medical Research in 1965 with the mission "to extend the healthy years of life through research on mechanisms of biology that govern normal human aging and its related physiological decline, with the objective of translating research into interventions that will extend healthspan with lifespan."

Mr. Glenn was a founding member of AFAR's Board of Directors. In the decades since, AFAR and the Glenn Foundation have collaborated on three grant programs that have significantly built the research pipeline: the Glenn Foundation for Medical Research/AFAR Grants for Junior Faculty, the Glenn Foundation for Medical Research Postdoctoral Fellowships in Aging Research, and the Glenn Foundation for Medical Research Breakthroughs in Gerontology (BIG) Awards.

AFAR and the Glenn Foundation have co-hosted our annual scientific meetings in Santa Barbara, fostering the exchange of ideas and inspiring new partnerships.

AFAR is deeply grateful for Paul F. Glenn's extraordinary contributions to biomedical research on healthy aging.

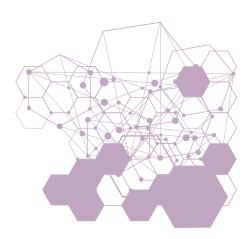
In Memoriam:

AFAR also mourns Edward J. Masoro, PhD, FGSA, and Geoffrey Thompson.

Dr. Masoro served on AFAR's Scientific Review Committee and was the former President of our long-time collaborator, the Gerontological Society of America (GSA).

Mr. Thompson served as a member of our Board of Directors for almost 20 years. His father, Fred Thompson, was AFAR's founding Chair.

We are grateful for their support of AFAR and their dedication to aging research.



Pandemic Underscores Importance of AFAR's Work

Dear Friends,

It's been a challenging year for all of us. As the COVID-19 pandemic has swept across the globe, affecting every community worldwide, it has become increasingly apparent that the work AFAR supports is more critical than ever.

Simply put, aging research holds the tools necessary to act against the pandemic. AFAR and its researchers have been working for almost 40 years on the science of how the underlying processes of aging influence chronic diseases such as cancer, heart disease, diabetes, and Alzheimer's, among others.

The numerous challenges caused by this novel coronavirus have highlighted the importance of the research that AFAR-supported scientists work on every day.

During these difficult times, AFAR has remained steadfast in our approach to fund scientists whose pioneering research translates into healthier and longer lives. We have continued to educate and convene the scientific community and the public through online webinars, meetings, and newsletters. And we have sought new collaborations which we believe will accelerate research to bring about new discoveries that will not only have an impact on COVID-19, but on the chronic diseases of aging.

With all that has transpired this year, I know that 2019 can seem like another age. While this report brings you up to date on our work during these unprecedented times, I hope you will take some time to read through our accomplishments for 2019 that advanced our understanding of aging research.

The groundbreaking research and accomplishments you'll read about in this report are only possible because of our generous donors. Your continued support of our work remains critical to our mission of advancing healthy aging.

Warmest regards,

Stephanie Lederman Executive Director



COVID-19 RESPONSE

As a novel coronavirus quickly grew into the COVID-19 global pandemic, AFAR mobilized our experts and peers to provide science-backed information to the general public and stake-holders across the private and philanthropic sectors through webinars and media relations. Committed to convening the field and supporting research, we held our scientific meetings and grants reviews online.

Articles

AFAR experts have discussed how and why older adults are especially vulnerable to severe illness caused by COVID-19. They also have explained how the geroscience approach of targeting the biological mechanisms of aging could lead to therapeutics that bolster the medical response of older adults to COVID-19 and other viruses.

Highlights include:

AFAR grantee Matt Kaeberlein, PhD, published an op-ed on the political news website, *The Hill:* "COVID-19: Why it kills the elderly and what we should do about it."

Also in *The Hill*, AFAR Board President Mark. S. Lachs, MD, MPH, co-authored "Want to slash coronavirus deaths? Start (really) caring about long term care." Dr. Lachs expanded on this topic in a *JAMA Networks* article.

Insights shared during our webinar, "Maintaining Immune Health in the Face of COVID-19 and Future Viruses," were featured in Jane Brody's popular "Personal Health" column in *The New York Times*.

AFAR Scientific Director Nir Barzilai, MD, co-authored an op-ed in *U.S. News and World Reports*: "Fight the Coronavirus by Defending the Host." The piece proposes both long- and short-term policies officials could implement to protect older adults vulnerable to COVID-19 and highlights the ways geroscience research and the upcoming AFAR-funded TAME Trial can help prevent future pandemics.

Webinars

Early in the pandemic, AFAR initiated a series of webinars exploring immune health, geroscience, and therapeutics:

- "COVID-19: Can the Science of Aging Move Us Forward?"
- "Maintaining Your Immune Health in the Face of COVID-19 and Future Viruses."

AFAR also collaborated with Grantmakers in Aging (GIA) to launch a webinar series for the philanthropic community, "Aging & COVID-19: What Does Science Tell Us?":

- "Why COVID-19 Preys on Older Adults: What the Science Says (and Doesn't Say)."
- "COVID-19 Vulnerability and Mortality in Nursing Homes: Why Systemic Changes are Needed Now."
- "The Biology of Aging and Our Body's Readiness for COVID-19 Vaccines."

"The mechanisms of aging have even been formalized into several 'hallmarks' which can be targeted to delay, or even reverse, aspects of biological aging. This has important implications for how we should approach diseases of aging, particularly in the context of COVID-19."

Matt Kaeberlein, PhD, AFAR grantee,
 Opinion Essay, TheHill.com

Watch and read AFAR's COVID-19 webinars and articles at www.afar.org/covid-19



Launching Clin-STAR

In October, AFAR received funding from the National Institute on Aging (NIA), part of the National Institutes of Health, to serve as the Coordinating Center for the newly launched Clinician-Scientists Transdisciplinary Aging Research (Clin-STAR) program.

NIA is funding Clin-STAR through a cooperative agreement with AFAR and three academic resource centers: Johns Hopkins University; the University of California, San Francisco; and Yale University. NIA's support is expected to total nearly \$4.5 million over five years.

The Clin-STAR Coordinating Center will develop a multi-faceted, national platform to promote and enrich the career development, training, and transdisciplinary research of clinician-investigators across the U.S., particularly early-stage investigators who are committed to careers in aging research.

Clin-STAR's Principal Investigators are Thomas Gill, MD; Jeremy Walston, MD; and Kristine Yaffe, MD; as well as AFAR's Deputy Executive Director, Odette van der Willik. Gill, Walston, and Yaffe are all AFAR grantees.



Three Clin-STAR Cores (Leadership Core, Mentoring and Career Development Core, and Research and Dissemination Core) lead the design and implementation of Clin-STAR activities, while the Academic Resource Centers support the Cores in executing these activities. The National Program Office is the Clin-STAR Coordinating Center's administrative unit.

Clin-STAR is also issuing pilot grants, holding annual meetings, hosting webinars, and offering outreach activities, including the Clin-STAR website and Twitter account.

Clin-STAR kicked off with a session at the annual Beeson Meeting: see page 13.

Learn more at <u>www.clin-star.org</u>

Building NIA Networks

In addition to the new Clin-STAR program, AFAR serves as the Coordinating Center for the Nathan Shock Centers of Excellence in the Basic Biology of Aging and manages the Research Centers Collaborative Network. Both initiatives are funded by the NIA.

Activities of the NSC and RCCN Coordinating Centers include:

- Pilot Grants and Travel Awards
- Sessions for Early Career Investigators
- Annual Directors Meeting
- Webinars and Workshops
- Websites and Social Media



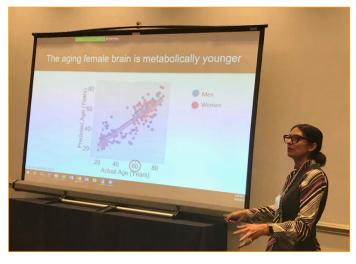


NATHAN SHOCK CENTERS OF EXCELLENCE IN THE BASIC BIOLOGY OF AGING





Catherine Kaczorowski, PhD, presented her AFAR-supported research at an NSC webinar.



AFAR grantee Dena Dubal, MD, PhD, presented at the Sex and Gender Differences in Aging workshop organized by the RCCN.

Learn more at <u>www.nathanshockcenters.org</u>

Learn more at <u>www.rccn-aging.org</u>

Supporting the National Academy of Medicine Longevity Awards

AFAR provided scientific expertise and administrative support to the National Academy of Medicine (NAM) for its new U.S. Catalyst Awards. The awards are part of NAM's Healthy Longevity Global Grand Challenge, a multi-year, multi-million dollar international competition seeking breakthrough innovations to extend human health and function later in life.



Advancing Geroscience Worldwide

With support from the Nathan Shock Centers Coordinating Center, AFAR helped manage and promote a series of International Perspectives on Geroscience Meetings in 2019. The meetings aimed to increase and enhance understanding of geroscience concepts, encourage researchers around the globe to integrate these concepts into their research endeavors, and accelerate the development of both prevention and intervention strategies. Held in Australia, China, Israel, Singapore, Spain, and the U.S., the meetings were spearheaded by AFAR grantees Ana Maria Cuervo, MD, PhD; Matt Kaeberlein, PhD; Brian Kennedy, PhD; and Felipe Sierra, PhD, among others.





More at <u>www.afar.org/what-is-geroscience</u>



Clockwise:

The first-ever meeting on geroscience in China was held in Shenzhen from May 24-25, sponsored in part by the Milstein Medical Asian American Partnership (MMAAP) Foundation.

Presenters from the Australia meeting held in Sydney from August 26-28.

A panel discussion at the geroscience meeting held in Rehovot, Israel from September 4-5, sponsored in part by the Sagol Institute for Longevity Research.





Sharing Expert Insights

AFAR Board Members and grantees are furthering the field and educating the public through research published in leading journals and insights shared in popular media.

AFAR also published the white paper, "Longevity and Health of U.S. Presidential Candidates for the 2020 Election," co-authored by Board Member S. Jay Olshansky, PhD, that compared the estimated healthspan and longevity of all of the presidential candidates. The paper was cited widely, from *The Washington Post* to *The New York Times* and more.



For the latest AFAR news, follow AFARorg on Facebook and Twitter



2019 GRANTS

AFAR grant programs awarded more than \$3.7 million to 49 investigators and students. With the support of an AFAR grant, their research will lead to interventions to help us all live healthier for longer and delay the onset of age-related diseases.

AFAR grants are selected through a scientifically rigorous review process.

Members of our Scientific Review Committees are accomplished scientists representing a wide range of expertise in biomedical research on aging.

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.

Many are also past AFAR grantees, and they play an important role in identifying the talent and research that AFAR supports.

We are grateful for their contributions, which are essential in shaping the impact and reputation of AFAR's grant programs.

THROUGH 2019,
AFAR HAS GRANTED
APPROXIMATELY
\$181 MILLION
TO OVER
4,200
TALENTED
RESEARCHERS

Learn more at <u>www.afar.org/for-scientists</u>

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. Several grant programs help early-career scientists acquire the knowledge, skills, and experience they need to build a body of research and to apply for larger grants. Just as critical are grants tailored to mid-career and senior investigators, which allow them to undertake high-risk research projects that offer significant promise of yielding transforming discoveries.

GLENN FOUNDATION FOR MEDICAL RESEARCH AND AFAR GRANTS FOR JUNIOR FACULTY

Carlos Aguilar, PhD Assistant Professor University of Michigan

Nausica Arnoult, PhD Assistant Professor University of Colorado, Boulder

Abigail Buchwalter, PhD Assistant Professor University of California, San Francisco

Lindsay De Biase, PhD Assistant Professor David Geffen School of Medicine at UCLA

Brian DeBosch, MD, PhD Assistant Professor Washington University School of Medicine

Yarui Diao, PhDAssistant Professor
Duke University School of Medicine

Sung Min Han, PhD Assistant Professor University of Florida

Mark McCormick, PhD Assistant Professor University of New Mexico Health Sciences Center

Maria Mihaylova, PhD Assistant Professor The Ohio State University

Kapil Ramachandran, PhD Junior Fellow, Harvard Society of Fellows Harvard University

A. Hunter Shain, PhD Assistant Professor University of California, San Francisco

Aakanksha Singhvi, PhD Assistant Member Fred Hutchinson Cancer Research Center University of Washington Peter Sudmant, PhD Assistant Professor University of California, Berkeley

George Sutphin, PhD Assistant Professor University of Arizona

Ming Xu, PhD Assistant Professor University of Connecticut Health Center

Selection Committee

Pinchas Cohen, MD, *Chair* University of Southern California

Steven N. Austad, PhD University of Alabama, Birmingham

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

Henri Jasper, PhD The Buck Institute/Genentech Yousin Suh, PhD

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

GLENN FOUNDATION FOR MEDICAL RESEARCH



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, David W. Gore, The Hearst Foundation, The William G. and Helen C. Hoffman Foundation, Diana Jacobs Kalman, the Irving Kahn Fund, The Marion Esser Kaufmann Foundation, Diane Nixon, and The Irving S. Wright Endowment.

GLENN FOUNDATION FOR MEDICAL RESEARCH POSTDOCTORAL FELLOWSHIPS IN AGING RESEARCH

Laura Bott, PhD Postdoctoral Fellow Northwestern University

Nirmalya Dasgupta, PhD
Postdoctoral Associate

Sanford Burnham Prebys Medical Discovery Institute

Yoko Henderson, PhD
Postdoctoral Research Fellow
Cleveland Clinic Lerner Research Institute

Ryo Higuchi-Sanabria, PhD Postdoctoral Fellow University of California, Berkeley

Li Li, MD, PhD Postdoctoral Scholar Stanford University

Elise Marsan, PhD
Postdoctoral Fellow
University of California, San Francisco

Mikolaj Ogrodnik, PhD Research Fellow Mayo Clinic Seungjin Ryu, PhD Postdoctoral Associate Yale University

Kevin Stein, PhDPostdoctoral Scholar
Stanford University

Matthew Ulgherait, PhD Postdoctoral Researcher Columbia University

Selection Committee

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

Shin-Ichiro Imai, MD, PhD Washington University School of Medicine, St. Louis

Marc Vermulst, PhD University of Southern California Davis School of Gerontology

Saul Villeda, PhD University of California, San Francisco

Meng Wang, PhD
Baylor College of Medicine

Ashley Webb, PhD Brown University

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

Ursula Jakob, PhD Professor University of Michigan

Norbert Perrimon, PhD
Professor of Genetics
Blavatnik Institute, Harvard Medical School

THE IMPACT OF AN AFAR GRANT

"During a time when research funding is such a limited and precious resource, AFAR provides a launching pad to initiate aging research careers, and a supportive network of established aging investigators to allow these careers to thrive well after the program ends.

 Brian DeBosch, MD, PhD, Glenn Foundation for Medical Research and AFAR Grant for Junior Faculty

Selection Committee

Charlotte Peterson, PhD, *Chair* University of Kentucky

Judy Campisi, PhD The Buck Institute

Veronica Galvan, PhD UT Health San Antonio

David Marcinek, PhD University of Washington Medical Center

Satchidananda Panda, MD

Salk Institute

Jan Van Deursen, PhD Mayo Clinic

GLENN FOUNDATION FOR MEDICAL RESEARCH



AFAR is grateful to the Glenn Foundation for Medical Research for its support of these grant programs.

THE IRENE DIAMOND FUND/AFAR POSTDOCTORAL TRANSITION AWARDS IN AGING

Priya Balasubramanian, BVSc, PhD
Postdoctoral Research Associate
University of Oklahoma Health Sciences Center

Dibyadeep Datta, PhD Postdoctoral Associate Yale University

David Gate, PhD Postdoctoral Fellow Stanford University

Alice Kane, PhD Postdoctoral Fellow Harvard Medical School

Eleni Markoutsa, PhD Research Instructor University of South Florida

Jia Nie, PhD
Postdoctoral Fellow
University of Texas Health, San Antonio

Matthew Yousefzadeh, PhD Researchers 6 (Postdoctoral Fellow) University of Minnesota

Selection Committee

Jeremy Walston, MD, *Chair* Johns Hopkins University School of Medicine

Julie Glowacki, PhD Brigham and Women's Hospital

William Hu, MD, PhD Emory University

Angela Jefferson, PhD Vanderbilt University Medical Center

George Kuchel, MD University of Connecticut Sean Leng, MD, PhD

Johns Hopkins University School of Medicine

ARTHRITIS AND AGING GRANT

Jointly funded by AFAR and the Arthritis National Research Foundation

Charles Chan, PhD Assistant Professor Stanford University

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

Jenna Blujus

University of Wisconsin-Milwaukee

Jeongmoon Choi

Georgia Institute of Technology

Hui Jean Kok University of Florida

Daniel Matasic University of Iowa

Kenyaria Noble

Medical University of South Carolina

Katarzyna Piekarz

University of Oklahoma Health Sciences Center

Sarah Royer

University of California, Irvine

Yao Tong

Tulane University

Mariana Uchoa

University of Southern California

Ruofan Yu

Baylor College of Medicine

Selection Committee

Paul Agris, PhD, *Chair* Duke University School of Medicine

Todd Cohen, PhD

University of North Carolina, Chapel Hill School of Medicine

Anna Csiszár, MD, PhD

University of Oklahoma Health Sciences Center

Radoslaw Dobrowolski, PhD

Rutgers University

Paul Hasty, DVM

University of Texas Health Science Center, San Antonio

Vyacheslav Labunskyy, PhD

Boston University School of Medicine

Scott Leiser, PhD University of Michigan



AFAR is grateful for the generosity of Diana Jacobs Kalman in supporting this scholarship.

CLARENCE PEARSON FELLOWSHIP IN GLOBAL HEALTH AND AGING



Late AFAR Board Member Clarence Pearson dedicated his career to building relationships across the public, private, and nonprofit sectors in order to raise awareness about the impact of the growing aging population worldwide. In his honor, this fellowship provides graduate public health students the opportunity to gain deeper knowledge of scientific, clinical, and social science research in age-related health concerns. In spring-summer 2019, Angelina Cui, an MPH candidate at New York University, worked under the mentorship of Michael W. Hodin, CEO of the Global Coalition on Aging and AFAR Board Member, to help support the inaugural, global Silver Economy Forum.

AFAR is grateful for Laurie Norris' (left) ongoing support honoring the legacy of Clarence Pearson (right).

DOROTHY DILLON EWESON LECTURE SERIES

AFAR's Dorothy Dillon Eweson Lecture Series provides support to encourage investigators in the field of aging research to present findings at an annual scientific or medical specialty association meeting where aging-related research is not the primary focus.

Miles Berger, MD, PhD American Society of Anesthesiology 2019

Leanne Groban, MD

American Physiological Society's section on Exercise and Environmental Physiology at the Experimental Biology Meeting

Meredith Hawkins, MD

American Federation for Medical Research (AFMR) Eastern Regional Meeting

Jason Hinman, MD, PhD

Annual Meeting of the American Neurological Association

Hillary Lum, MD, PhD

AcademyHealth Annual Research Meeting

Robert G. Morrison, PhD

Annual Meeting of the Cognitive Neuroscience Society

Edward P. Weiss, PhD

World Congress on Exercise is Medicine, and the World Congress on the Basic Science of Exercise, Circadian Rhythms and Sleep



Nina Silverberg, PhD, Director, Alzheimer's Disease Centers Program of the NIA/NIH, presents at the New Investigators in Alzheimer's Disease in meeting in Los Angeles.

NEW INVESTIGATOR IN ALZHEIMER'S DISEASE GRANTEE MEETING

AFAR organized the New Investigators in Alzheimer's Disease Grantee Meeting from September 25-27, 2019 in Los Angeles at the UCLA Luskin Conference Center. The purpose of the event was to promote scientific and personal exchanges among current and former grantees and experts in the field of Alzheimer's Disease.

The meeting was funded with the support of The Rosalinde and Arthur Gilbert Foundation and the National Institute on Aging.



THE IMPACT OF AN AFAR GRANT

"Particularly for early stage researchers like myself who are not already established in the field of aging, support from AFAR makes it possible to carry out aging research."

- Lindsay De Biase, PhD, Glenn Foundation for Medical Research and AFAR Grant for Junior Faculty

ANNUAL GRANTEE CONFERENCE

AFAR grantees, Nathan Shock Centers pilot grant awardees, senior leaders in the field, and representatives from foundations gathered in Santa Barbara, California, for the 32nd Annual AFAR Grantee Conference in June.

More than 80 attendees convened to hear about the most recent research and to share insights on emerging directions in the field. The meeting, held from June 3-5, provided valuable opportunities for the attendees to learn from each other's work while fostering potential collaborations.

On day two, the AFAR grantee conference and the Glenn Workshop were held jointly to discuss progress in the field of aging research, key challenges, and the broader implications of the research that is supported.

A Poster Session followed, featuring research from AFAR grantees as well as Nathan Shock Centers of Excellence in the Basic Biology of Aging Pilot Project awardees. The meeting ended with a dinner featuring keynote speaker Sean Carroll of Caltech, who spoke on the topic of "The Arrow of Time and the Meaning of Life."

Throughout the meeting, attendees networked and shared their research. Discussions with established experts and leaders often lend new insights, as Nathan Shock Centers pilot grantee Melissa Harris notes: "A conversation with AFAR's Executive Director, Stephanie Lederman, reminded me that my research studying gray hair affords me a unique opportunity to reach people at the level of their daily lives and is an ideal opportunity to help them literally 'see' how biology of aging research can impact human lives in a relatable way."

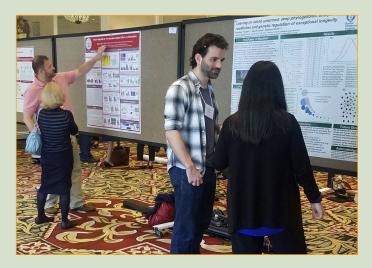
AFAR is grateful to the Glenn Foundation for Medical Research for their support of these annual scientific meetings.

GLENN FOUNDATION FOR MEDICAL RESEARCH





AFAR Senior Scientific Director Steven Austad, PhD, shared opening remarks at the beginning of the 32nd Annual AFAR Grantee Conference.



AFAR Grantees and Nathan Shock Center Pilot Awardees shared their research in a Poster Session.



Board Member and two-time grantee Thomas Rando, MD, PhD, discussed his research.

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)

Elizabeth Goldberg, MD Associate Professor The Alpert Medical School of Brown University

Meredith Greene, MD Assistant Professor University of California, San Francisco

Lisa Kilpela, PhD Assistant Professor University of Texas Health Science Center, San Antonio

Allison Magnuson, DO Assistant Professor University of Rochester

Zachary Marcum, PharmD, PhD Assistant Professor University of Washington

Rowena McBeath, MD, PhD Assistant Professor Jefferson University

Veerawat Phongtankuel, MD Assistant Professor of Medicine Weill Medical College of Cornell University

Jason Roh, MD Staff Physician Massachusetts General Hospital

Matthew Schrag, MD, PhD Assistant Professor Vanderbilt University

Victoria Lai-Yen Tang, MD Assistant Professor University of California, San Francisco

Melisa Wong, MD, MAS Assistant Professor University of California, San Francisco

Heidi Zapata, MD, PhD Assistant Professor Yale School of Medicine

Selection Committee

Thomas Gill, MD, *Chair* Yale University School of Medicine

Liana Apostolova, MD, MSc, FAAN Indiana University School of Medicine

Malaz Boustani, MD Indiana University School of Medicine

Cynthia M. Carlsson, MD, MS University of Wisconsin School of Medicine and Public Health

Wes Ely, MD, MPH, FCCP Vanderbilt University

Alison Moore, MD, MPH University of California, San Diego

Nicolas Musi, MD The University of Texas Health Science Center, San Antonio

Consuelo Wilkins, MD Vanderbilt University

Kristine Yaffe, MD University of California, San Francisco

2019 Beeson Scholars are fully funded through the National Institute on Aging (NIA) of the National Institutes of Health (NIH). The Beeson Annual Meetings are supported through The John A. Hartford Foundation and the NIA.

MEDICAL STUDENT TRAINING IN AGING RESEARCH (MSTAR) PROGRAM

Fatima Nathalia Morales Delgado Anthony Palillo Yushan Pan Carrie Sha

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

BEESON ANNUAL MEETING AND REPORT

AFAR organized the Beeson Annual Meeting, which was held November 20-23, in Santa Ana Pueblo, New Mexico.

The meeting is an essential component of the Paul B. Beeson Emerging Leaders Career Development Award, a K76 award mechanism supported by the National Institute on Aging (NIA). The meeting aims to nurture and develop a collective identity and cohesiveness among the Beeson Scholars.

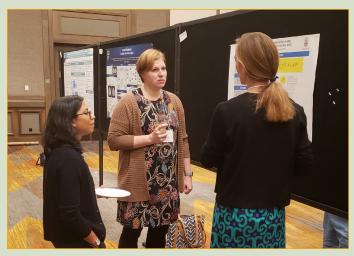
The annual meeting provides each Scholar with access to colleagues who are working on similar issues related to aging, though often in different disciplines.

Preceding the annual Beeson Meeting, AFAR also organized a session for the Clin-STAR Coordinating Center, "Leadership: Creating and Finding Opportunities." The session included an overview of the Clin-STAR initiative and a moderated panel session highlighting career paths that several investigators have chosen.

AFAR also produced the 2019 Beeson Report, featuring the 2017 Beeson Scholars.

The Beeson Annual Meeting is supported through The John A. Hartford Foundation and the NIA.





A Poster Session inspired Beeson Scholars to exchange ideas and foster collaboration.



A Speed Networking event encouraged new and alumni Beeson Scholars and Mentors to connect.



During the Clin-STAR session, Zara Cooper, MD, MSc, of Harvard Medical School, shared her leadership journey.

NATIONAL SCIENTIFIC ADVISORY COUNCIL (NSAC)

AFAR is grateful for the commitment of our NSAC members who lend their scientific expertise to our grant review process.

Shawn Ahmed, PhD University of North Carolina

Mikhail Alexeyev, PhD University of South Alabama

Richard Altschuler, PhD University of Michigan

Rozalyn Anderson, PhD University of Wisconsin, Madison

Javier Apfeld, PhD Northeastern University Rajendra Apte, MD, PhD

Washington University Robert Arking, PhD

Wayne State University Nicole Ashpole, PhD

University of Mississippi, School of Pharmacy

Kaveh Ashrafi, PhD University of California, San Francisco

Steven Austad, PhD University of Alabama, Birmingham

Brian Bacskai, PhD MassGeneral Institute for Neurodegenerative Diseases

Darren Baker, PhD Mayo Clinic

Marcas Bamman, PhD University of Alabama, Birmingham

Joseph Baur, PhD University of Pennsylvania

Narayan Bhat, PhD Medical University of South Carolina

Paula Bickford, PhD University of South Florida

Gal Bitan, PhD

David Geffen School of Medicine at UCLA

Rolf Bodmer, PhD

Sanford-Burnham Medical Discovery Institute

Andrea Bodnar, PhD Gloucester Marine Genomics Institute

Olivier Boutaud, PhD Vanderbilt University

Robert Brosh, Jr, PhD National Institute of Aging/NIH

Holly Brown-Borg, PhD University of North Dakota, School of Medicine & Health Sciences

Christin Burd, PhD Ohio State University

Dongsheng Cai MD, PhD Albert Einstein College of Medicine

S. Thomas Carmichael, MD, PhD David Geffen School of Medicine at UCLA Greg Cartee, PhD University of Michigan

Christy Carter, PhD

University of Alabama at Birmingham

Jane Cauley, DrPh University of Pittsburgh

Yung Chang, PhD Arizona State University

Zheng Chen, PhD

University of Texas Health Science Center, Houston

Danica Chen, PhD

University of California, Berkeley

Zheng-Yi Chen, PhD

Massachusetts Eye & Ear Infirmary

Wallace Chick, PhD

University of Colorado, Denver

James Chrobak, PhD University of Connecticut

Dennis Clegg, PhD

University of California, Santa Barbara

Harvey Jay Cohen, MD Duke University Medical Center

Lucio Comai, PhD

University of Southern California

Cheryl Conover, PhD

Mayo Clinic College of Medicine

Jon Corton, PhD

US Environmental Protection Agency

Anna Csiszar, MD, PhD University of Oklahoma

Ana Maria Cuervo, MD, PhD Albert Einstein College of Medicine

Abbe de Vallejo, PhD

University of Pittsburgh School of Medicine

Ferenc Deak, MD, PhD

University of Oklahoma Health Science Center

Lucian Del Priore, MD, PhD

Yale University

Fabio Demontis, PhD

St. Jude Children's Research Hospital

Luisa DiPietro, DDS, PhD

University of Illinois, Chicago, College of Dentistry

Vishwa Dixit, DVM, PhD

Yale University School of Medicine

Radoslaw Dobrowolski, PhD

Rutgers University

Peter Douglas, PhD

UT Southwestern Medical Center

Isabelle Draper, PhD Tufts Medical Center, MCRI Monica Driscoll, PhD Rutgers University

Gustavo Duque, MD, PhD University of Melbourne

Atanu Duttaroy, PhD Howard University

Paul Eslinger, PhD

Penn State Hershey Medical Center

Anne Etgen, PhD

Albert Einstein College of Medicine

James Fadel, PhD

University of South Carolina School of Medicine

Roger Fielding, PhD JMHNRC Tufts University

Els Fieremans, PhD

New York University School of Medicine

Mark Fisher, MD

University of California, Irvine

Alfred Fisher, MD, PhD University of Nebraska

Tracy Fitzgerald, PhD The National Institute on Deafness and Other Communication Disorders/NIH

Thomas Flatt, PhD University of Fribourg

Jerome Fleg, MD

National Heart, Lung, and Blood Institute/NIH

Bess Frost, PhD

University of Texas Health Science Center, San Antonio

Sebastian Fugmann, PhD Chang Gung University

David Gardiner, PhD University of California, Irvine

Arjumand Ghazi, PhD University of Pittsburgh

Jadwiga Giebultowicz, PhD Oregon State University

Matthew Gill, PhD

The Scripps Research Institute, Scripps Florida

Thomas Gill, MD

Yale University School of Medicine

Julie Glowacki, PhD

Brigham and Women's Hospital

Todd Golde, MD, PhD University of Florida

Scott Gordon, PhD Kennesaw State University

Andrea Gore, PhD The University of Texas, Austin

Jorg Goronzy, MD, PhD Stanford University School of Medicine

Cheryl Grady, PhD

Rotman Research Institute, Baycrest

Kim Green, PhD University of California, Irvine Eric Greer, PhD

Harvard Medical School/Children's Hospital Boston

Lisbet Haglund, PhD Montreal General Hospital

Marcia Haigis, PhD Harvard Medical School

Malene Hansen, PhD

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"AFAR has continuously supported many scientists at different career stages that are working on innovative questions pertaining to aging. I feel very fortunate to have received this award early in my independent career, because it will allow me to take our work in new and exciting directions."

– Maria M. Mihaylova, PhD 2019 Glenn Foundation for Medical Research and AFAR Grant for Junior Faculty

ALDA, MILSTEIN HONORED AT NYC DINNER

AFAR hosted our Annual Awards Dinner and Scientific Roundtable at Lotte New York Palace on November 7.

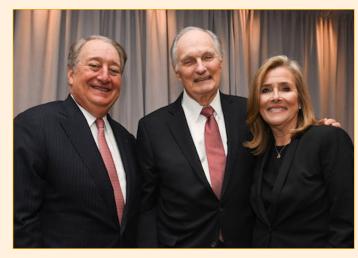
Emmy Award-winning television host and producer Meredith Vieira returned to emcee. Vieira hosted the 2018 PBS documentary, *Incredible Aging: Adding Life to Our Years*, that featured 14 AFAR experts, as well as that year's awards dinner.

Actor, author, and science advocate **Alan Alda**, founder of the Alan Alda Center for Communicating Science, received AFAR's **Honorary Leadership Award** for 2019.

We presented the **George E. and Marie J. Doty Award** to philanthropist **Howard P. Milstein**,
Founder and Chairman of the Milstein Medical
Asian American Partnership (MMAAP) Foundation,
and Chairman, Milstein Program of Geriatrics.

A new Fox Wetle Award in Health Services and Aging Research also was announced.

Earlier that day, leaders across the public health, pharmaceutical, research, and nonprofit sectors gathered for a scientific roundtable, *Adult Vaccinations:*Opportunities for Healthy Aging, Barriers to Engagement. AFAR Board Member and CEO of the Global Coalition on Aging Michael W. Hodin, PhD, moderated. The roundtable was organized with the support of Pfizer Inc, Merck, and Life Biosciences, Inc.



2019 honorees Howard P. Milstein (left) and Alan Alda (right) with master of ceremonies Meredith Vieira. AFAR celebrated Mr. Milstein's philanthropic dedication to geroscience worldwide and Mr. Alda's commitment to communicating science.



AFAR Executive Director Stephanie Lederman (left) and Board member and Past President Fox Wetle, PhD (right) celebrated a new named award in Dr. Wetle's honor.



Cross-sectors discussed adult vaccinations and healthy aging at our afternoon scientific roundtable.



Board members Michael Hodin, PhD, and Pol Vandenbroucke, PhD, shared insights from the scientific roundtable.

SAN FRANCISCO DINNER CELEBRATES WOMEN IN SCIENCE AND TECHNOLOGY

AFAR hosted a dinner in San Francisco in conjunction with the American Aging Association Meeting and the U.S. session of the International Perspectives on Geroscience Meetings.

The event, held on May 29, celebrated women in science and technology. AFAR presented our Icon of Aging Awards to Katy Fike, Co-Founder of Aging2.0 and Generator Ventures (left), and Prachi J. Vakharia, Founder of Womanium (right).



IRVING S. WRIGHT AND VINCENT CRISTOFALO AWARDS CEREMONY AND LECTURES

On Friday, November 15, AFAR presented its 2019 Scientific Awards during a special ceremony at the Annual Scientific Meeting of the Gerontological Society of America (GSA) in Austin, Texas.

Irving S. Wright Award of Distinction recipient **Pinchas Cohen, MD,** presented the lecture: *Mitochondrial System Biology as a Window into Diseases of Aging.*

Vincent Cristofalo Rising Star Award in Aging Research recipient Nathan K. LeBrasseur, PT, PhD, presented the lecture: Biomarkers of Senescent Cell Burden.



Irving S. Wright Award winner Pinchas Cohen, MD, gave a lecture on his research at the GSA annual meeting.

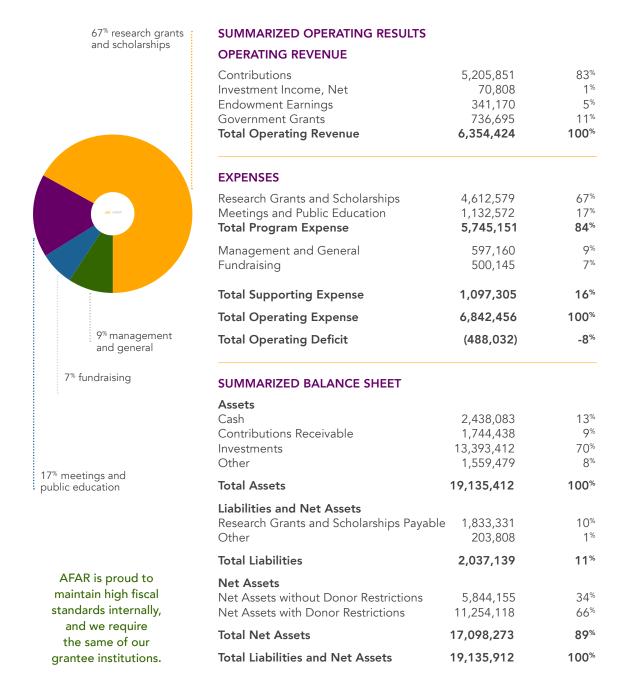


Vincent Cristofalo Rising Star Award in Aging Research recipient Nathan K. LeBrasseur, PT, PhD, with AFAR President-elect James L. Kirkland, MD, PhD.

Learn more about the Irving S. Wright Award of Distinction and past recipients at www.afar.org/irving-s-wright-award

Learn more about the
Vincent Cristofalo Rising Star Award in
Aging Research and past recipients at
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SUMMARIZED FINANCIAL INFORMATION Year Ended December 31, 2019



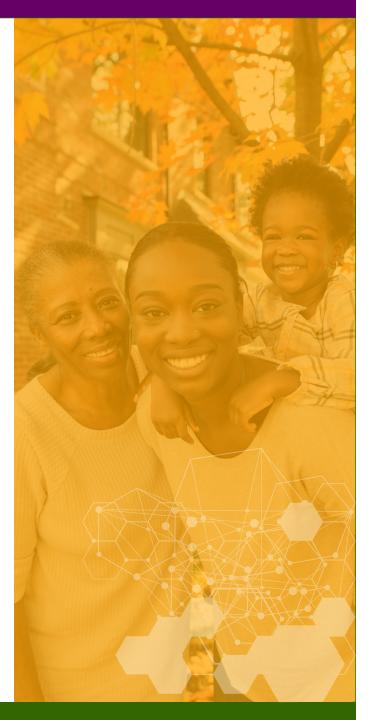
For the sixth consecutive year, AFAR has earned a 4-star rating from Charity Navigator, America's largest and most-utilized independent evaluator of charities. This is the highest possible rating and shows that AFAR adheres to sector best practices and executes its mission in a financially efficient 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.



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 an 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.



We welcome the opportunity to speak with you about how your gift can help support AFAR's work. For more information, please email info@afar.org.

To make a gift to AFAR online, please visit our secure website www.afar.org/give.

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