# Catalyzing Healthy Longevity: National Academy of Medicine Global Innovator Summit




**October 20, 2026 | Washington, DC**

**Summit Program Book**

## Table of Content


| | |
|---|---|
| Agenda | 3 |
| About the Healthy Longevity Global Competition | 7 |
| Speaker Biographies | 9 |
| 2026 Grand Prize Awardees | 26 |
| Summit Planning Committee Roster | 34 |
| Acknowledgements | 35 |
| National Academy of Sciences Building First Floor Map | 37 |

U.S. NATIONAL ACADEMY OF MEDICINE
Healthy Longevity
GLOBAL GRAND CHALLENGE

# Catalyzing Healthy Longevity:
# National Academy of Medicine Global Innovator Summit

**7:45-8:30AM Registration & Breakfast**

**8:30-9:00AM Welcome & Grand Prize Award Ceremony**

- Speaker: **Victor Dzau**, Duke University

**9:05-9:30AM Catalyzing Healthy Longevity Keynote**

Longer, healthier lives have the potential to transform societies, economies, health systems, and global development. Healthy longevity represents not only a scientific frontier, but one of the defining global opportunities of the 21st century. Realizing this potential will require collaboration across governments, philanthropy, investment, science, and innovation to ensure that gains in longevity translate into better health and greater well-being. By making healthy longevity a broader societal and economic priority, longer lives can become an asset for individuals, communities, and societies around the world.

- Speaker: **Jim Yong Kim,** Global Infrastructure Partners

**9:30-10:30AM PANEL 1: Healthy Longevity as a National Priority**

Countries around the world are increasingly recognizing healthy longevity as both a scientific opportunity and a societal imperative. Governments, research agencies, and national organizations are developing strategies and investments to advance research and innovation, strengthen health and research ecosystems, and enable people to live longer, healthier lives. This panel will bring together international leaders to share how their countries are making healthy longevity a national priority through policy, investment, research, and cross-sector collaboration. Panelists will highlight emerging approaches and lessons learned, explore how national priorities are evolving, and identify opportunities for international collaboration to accelerate progress in healthy longevity worldwide.

- Moderated by **Linda Fried,** Columbia University
- Speakers:
  - **John Beard,** Columbia University
  - **Terry Fulmer**, Dartmouth College
  - **Depei Liu,** Peking University Medical College

- **Chorh Chuan Tan**, Singapore Agency for Science, Technology & Research

**10:30-10:45AM BREAK**

**10:45AM-11:45AM PANEL 2: The Future of Healthspan: Breakthrough Science and Technologies Transforming Aging**

Healthy longevity is being propelled by advances across an increasingly diverse range of scientific disciplines. From breakthroughs in the biology of aging and cellular rejuvenation to artificial intelligence, multi-omics, and precision health, researchers are developing new ways to understand and measure how we age, identify the mechanisms that drive age-related decline, and translate these insights into new approaches to prevention and treatment. This multidisciplinary panel will explore the scientific frontiers defining the next era of healthy longevity—including what we have learned, where the greatest opportunities now lie, and which emerging discoveries and technologies have the potential to meaningfully extend healthspan and improve human health.

- Moderated by **Thomas Rando,** University of California Los Angeles
- Speakers:
  - **Hal Barron**, Altos Labs
  - **Luigi Ferrucci**, National Institute on Aging, National Institutes of Health
  - **Kristen Fortney**, BioAge Labs
  - **Michael Snyder**, Stanford University School of Medicine

**11:45AM-12:15PM Flash Talks: Meet the Innovators**

In a series of rapid-fire presentations, Honorable Mention awardees and other Grand Prize semifinalists will offer a snapshot of their innovations and the problems they are working to solve. These brief previews will introduce attendees to the breadth of work represented at the Summit and invite them to learn more directly from the innovators later during the Healthy Longevity Experience Lab sessions later in the day.

**12:15-1:15PM Lunch & Healthy Longevity Experience Lab**

During the lunch hour, in-person attendees will have an opportunity to peruse exhibits – in the form of posters, demonstrations, and videos – to learn about projects that were selected as semifinalists for the NAM's Healthy Longevity Grand Prize.

| 1:15-2:15PM | Grand Prize Phase Awardee Spotlights |
|---|---|

Healthy Longevity Global Competition Co-chairs welcome the Grand Prize, 2nd Place, and 3rd Place winners present their work, followed by a moderated conversation and Q&A with the audience.

- Moderated by:
  - **Roderic Pettigrew**, Healthy Longevity Global Competition Co-chair, Texas A&M University
  - **Tim Evans**, Healthy Longevity Global Competition Co-Chair, Concordia University
- Speakers: **TBA:** Grand Prize, 2nd Place, and 3rd Place Prize Winners

| 2:20-3:20PM | PANEL 3: Building the Healthy Longevity Innovation Ecosystem |
|---|---|

Scientific breakthroughs alone are not enough to transform healthy longevity. Real-world impact depends on an ecosystem that supports translation—from early-stage research and proof-of-concept studies to clinical development, investment, commercialization, and broad implementation. This panel will bring together leaders from major initiatives, philanthropic organizations, venture capital, and other funding organizations to discuss how the field has evolved over the past decade, the partnerships that have accelerated progress, and the investments and collaborations needed to ensure that today's discoveries become tomorrow's health solutions.

- Moderated by **Mehmood Khan**, Hevolution Foundation
- Speakers:
  - **Dan Hartman**, Gates Foundation
  - **Jean Hebert,** Advanced Research Projects Agency for Health *(invited)*
  - **Cynthia Kenyon**, Calico Life Sciences
  - **Robert Tepper**, Third Rock Ventures

| 3:20-3:45PM | Break & Healthy Longevity Experience Lab |
|---|---|

During the extended break, in-person attendees will have an opportunity to peruse exhibits – in the form of posters, demonstrations, and videos – to learn about projects that were selected as semifinalists for the NAM's Healthy Longevity Grand Prize.

| 3:45-4:45PM | PANEL 4: Shaping the Future of Healthy Longevity: Ethics, Communication, and Public Trust |
|---|---|

As advances in healthy longevity move closer to human application, they raise important ethical, societal, regulatory, and communication questions. How can the field foster innovation while ensuring scientific rigor, equity, and public trust? How should emerging interventions be evaluated and regulated, and how can their promise and limitations be

communicated responsibly? This multidisciplinary panel will explore the roles of scientists, clinicians, industry, regulators, policymakers, advocates, and the media in shaping the future of healthy longevity, including how the ways we talk about aging can influence public perceptions, expectations, and health. The discussion will consider the ethical principles, evidence standards, oversight, communication, and public engagement needed to ensure that progress in healthy longevity ultimately benefits people across society.

- Moderated by **Mildred Solomon**, Harvard Medical School, The Hastings Center for Bioethics
- Speakers:
    - **Arthur Caplan**, New York University
    - **Steven Kozlowski**, U.S. Food and Drug Administration
    - **Becca Levy**, Yale University
    - **Lina Walker**, AARP

| **4:45-4:55PM** | **Summit Reflections** |
|---|---|

- Speaker: **Thomas Rando,** University of California Los Angeles

| **4:55-5:00PM** | **Final Remarks & Thank You** |
|---|---|

- Speaker: **Monica Bertagnolli**, National Academy of Medicine

# About the Healthy Longevity Global Competition

The Healthy Longevity Global Competition is a multi-year international competition seeking bold and novel innovations to improve human health and function throughout the lifespan. Launched in 2019, the Global Competition employs a progressive model of awards and prizes to help seed potentially transformative ideas and projects that could lead to a breakthrough in healthy longevity. The NAM defines healthy longevity as the state in which years in good health approach the biological life span, with physical, cognitive, and social functioning—enabling well-being across populations.

**Phase One: Catalyst Phase**

During the Catalyst Phase (2020-2025), the NAM and its partners held Catalyst Award competitions around the world, open to innovators in more than 50 countries and territories. Global Partners included:

- Academia Sinica
- Agency for Medical Research and Development of Japan
- Chinese Academy of Medical Sciences
- EIT Health of the European Union
- The Chinese University of Hong Kong & the University of Hong Kong
- Ministry of Health of Singapore
- National Academy of Medicine of the United States
- National Agency for Research and Development of Chile
- National Institute on Aging, National Institutes of Health of the United States
- Research Grants Council of the Hong Kong Special Administrative Region, China
- UK Research and Innovation

The Catalyst Awards rewarded bold, new, and potentially transformative ideas and early-stage projects to improve the physical, mental, or social well-being and health of people as they age, in a measurable and equitable way. Over six annual cycles, the NAM and global partners issued 720 Catalyst Awards, each worth $50,000 USD, for a total of more than $36 million USD.

**Phase Two: Accelerator Phase**

During the second phase, the Accelerator Phase (2021-2022), Johnson and Johnson Innovation held two Accelerator Award competitions open to meritorious global Catalyst Awardees that made progress in executing their ideas, preferably demonstrating proof of principle. JJI ultimately issued 13 Accelerator Awards to previous Catalyst Awardees in the US, EU, and Japan. Awardees received a total of $2.5 million and business development support.

**Phase Three: Grand Prize Phase**

Now in 2026, the NAM – with support from its global partners – is administrating the Grand Prize Phase of the Global Competition and will issue $2 million in prizes. This opportunity was open exclusively to the 720 Catalyst Award-winning teams from 2020–2025.

With its Grand Prize Phase awards, the NAM will recognize outstanding projects that have demonstrated significant impact, or potential for impact, on healthy longevity in humans. Specifically, the projects will advance scientific understanding, open new frontiers of research, and/or develop transformative solutions to help people live healthier as they age.

Applications were evaluated based on five criteria: (1) Impact in Humans (most important criterion); (2) Scope & Global Applicability; (3) Accessibility & Scalability; (4) Project Progress; and (5) Future Vision. Together, these criteria reflect the Global Competition's emphasis on meaningful human impact, scientific excellence, global relevance, and the potential to improve health and well-being across populations.

## Speakers



**Hal Barron, M.D.**
**CEO, Altos Labs**

Dr. Hal Barron is currently the CEO, Founder and Board Co-Chair of Altos Labs as well as serving as non-executive director on GSK's Board of Directors, and a non-executive director of Quantinuum Board of Directors. He also continues to teach as an Adjunct Professor of Epidemiology and Biostatistics at the University of California, San Francisco. Prior to joining Altos, Dr. Barron was Chief Scientific Officer and President, R&D at GSK, where he was responsible for all research and development activities globally across pharmaceutical molecules and vaccine candidates. Prior to joining GSK, Dr. Barron was President, R&D at Calico Labs, an Alphabet-funded company. Prior to this role, he was Executive Vice President, Head of Global Product Development, and Chief Medical Officer of Roche, responsible for all the products in the combined portfolio of Roche and Genentech. At Genentech, Dr. Barron was Senior Vice President of Development and Chief Medical Officer. He was a non-executive director and chair of the Science & Technology Committee at Juno Therapeutics until March 2018, when it was acquired by Celgene Corporation. He also previously served as a non-executive Board director of Grail until it was acquired by lllumina in 2021. He was also an Advisory Board Member of Verily Life Sciences until 2021. Dr. Barron holds a BS in Physics from Washington University in St. Louis and a MD from Yale University. He completed his training in Internal Medicine and Cardiology at the University of California, San Francisco. Dr. Barron has been issued several patents for his work in thrombosis and angiogenesis and has published more than 90 papers in peer-reviewed scientific journals.



**John Beard, Ph.D., M.B.B.S.**
**Irene Diamond Professor of Productive Aging, Columbia University**

John Beard is Irene Diamond Professor and Director of the International Longevity Center- USA at Columbia University, New York. From 2009-2019, he was Director of Ageing and Life Course with the World Health Organization in Geneva where he led major global initiatives including the *World report on ageing and health* which first framed the constructs of intrinsic capacity (described by the New York Times as "The Most Important Longevity Term You've Probably Never Heard Of") and functional ability. Among other programs during this period, he led development of the Global Network of Age-friendly Cities and Communities which now covers over 400 million people and the Integrated Care for Older People (ICOPE) program. He has worked extensively with the World Economic Forum and was commissioner for the US National Academy of Medicine Global Roadmap for Healthy Longevity.

His research frames health from the perspective of functioning rather than disease and he applies this approach to issues ranging from the biological drivers of age-related change to the societal implications of population aging. He led the first studies to validate the construct of intrinsic capacity and he is currently exploring how exposures and health related behaviors become biologically embedded across the life course to influence the rate of age-related functional decline.



**Monica Bertagnolli, M.D.**
**President, National Academy of Medicine**

Monica M. Bertagnolli, MD, is the President of the National Academy of Medicine (NAM) and Vice Chair of the National Research Council. She previously served as the 17th Director of the National Institutes of Health (NIH) and the 16th Director of the National Cancer Institute. A surgical oncologist and physician-scientist, Bertagnolli's research has advanced understanding of the role of genetics and inflammation in gastrointestinal cancers and soft-tissue sarcomas. She served as Chief of Surgical Oncology at Brigham and Women's Hospital and Dana-Farber Cancer Institute and is the Richard E. Wilson Professor of Surgery Emerita at Harvard Medical School. A past president and chair of the board of directors for the American Society of Clinical Oncology, she has also served on the boards of the American Cancer Society and the Prevent Cancer Foundation. Throughout her career, Bertagnolli has championed collaborative efforts to build a learning health system by transforming the data infrastructure for clinical research, including by spearheading the mCODE initiative, which enabled standardized oncology data exchange, and DataCOUNTS, an NIH program managing data to drive a learning health system. Bertagnolli was elected as a member of the NAM in 2021 and is the first woman to serve as its president. She graduated from Princeton University with a Bachelor of Science in Engineering degree and attended medical school at the University of Utah.



**Arthur Caplan, Ph.D.**
**Professor Emeritus, NYU Grossman School of Medicine**

Arthur Caplan is currently Professor Emeritus, he was the Drs. William F and Virginia Connolly Mitty Professor and founding head of the Division of Medical Ethics at NYU School of Medicine in New York City. He has written extensively on the ethics of life extension, research on aging and conceptual questions such as why aging is a disease and what constitutes quality of life.

Prior to coming to NYU School of Medicine, Dr. Caplan was the Sidney D. Caplan Professor of Bioethics at the University of Pennsylvania Perelman School of Medicine in Philadelphia, where he created the Center for Bioethics and the Department of Medical Ethics. Caplan has also taught at the University of Minnesota, where he founded the Center for Biomedical Ethics, the University of Pittsburgh, and Columbia University.

Dr. Caplan is the author or editor of thirty-five books and over 895 papers in peer reviewed journals. He has served on a number of national and international committees including as the chair of the National Cancer Institute Biobanking Ethics Working Group and chair of the Advisory Committee to the United Nations on Human Cloning to a name a few. In 2025 he was the lead ethics advisor to the Hevolution Foundation.

Caplan has served since 2015 as the co-chairperson of the Compassionate Use Advisory Committee (CompAC), an independent group of internationally recognized medical experts, bioethicists and patient representatives which advises Johnson & Johnson's Janssen Pharmaceuticals about requests for compassionate use of some of its investigational medicines.



**Timothy Evans, D.Phil., M.D.**
**Vice-President, Concordia University**

Timothy Evans is an economist and physician that has worked to advance health equity and strengthen health systems globally for over 3 decades. This has involved playing pivotal roles at the Rockefeller Foundation, the World Health Organization, the World Bank and BRAC, the world's largest NGO. During this period, Tim co-founded Gavi, the Vaccine Alliance, led the WHO Commission on Social Determinants of Health, spearheaded initiatives to expand HIV treatment access, and sparked the creation of the Global Financing Facility for Every Mother and Child. In 2019, he returned to Canada to establish a new School of Population and Global Health at McGill University. During the pandemic, he served as Executive Director of Canada's COVID-19 Immunity Task Force before transitioning to his current role as Vice-President, Research, Innovation and Impact at Concordia University.



**Kristen Fortney, Ph.D.**
**Co-Founder and CEO, BioAge Labs**

Kristen Fortney is the co-founder and CEO of BioAge, a clinical-stage biotechnology company developing a pipeline of treatments to extend healthy lifespan by targeting the molecular causes of aging. The company uses its discovery platform, which combines quantitative analysis of proprietary longitudinal human samples with detailed health records tracking individuals over the lifespan, to map out the key molecular pathways that impact healthy human longevity. By targeting these pathways with a large and mechanistically diverse portfolio of drugs, BioAge is unlocking opportunities to treat and prevent diseases of aging in entirely new ways.

Kristen's scientific background is in aging biology and bioinformatics. She received her PhD in Medical Biophysics from the University of Toronto, followed by postdoctoral training at Stanford University, where she was a fellow of the Ellison Medical Foundation & American Federation for Aging Research.



**Linda P. Fried, M.D., M.P.H.**
**Director, Butler Columbia Aging Center and Dean Emerita, Mailman School of Public Health, Columbia University**

Linda Fried is Director of the Robert N. Butler Columbia Aging Center and Butler Professor of Healthy Longevity at Columbia University; she served as Dean of Columbia's Mailman School of Public Health from 2008 to 2025. A geriatrician and epidemiologist, she was previously the Director of the Division of Geriatric Medicine and Gerontology and the Center on Aging and Health of the Johns Hopkins Medical Institutions. A population health scientist, she has led major cohort studies and clinical trials over her career, in which she has led development of our understanding of frailty as a clinical syndrome of aging and of opportunities to prevent development of disability and chronic diseases in the last third of life and to create healthy longevity for all. Dr. Fried designed and created a new model to build the unprecedented, altruistic social capital of older adults through volunteering, creating collective efficacy to meet unmet societal needs while improving the health of the volunteers, called Experience Corps. Dr. Fried has proposed that the opportunities of longer lives, if systems change to build them, could result in an unprecedented Third Demographic Dividend for countries, in which all ages can flourish because of longevity. An elected member of NAM and of its Council, Dr. Fried was the cochair of the NAM Global Commission that produced the 'Global Roadmap for Healthy Longevity' in 2022. She is the recipient of numerous honors and awards, including the Rall Medal of NAM and being named a Chevalier of the Legion d'Honneur by France.



**Terry Fulmer, Ph.D., R.N., FAAN**
**Adjunct Professor of Medicine, Geisel Medical School, Dartmouth College**

Terry Fulmer, PhD, RN, FAAN, is an Adjunct Professor of Medicine at the Geisel Medical School at Dartmouth College. Previously, she served as President of The John A. Hartford Foundation in New York City from 2015 to 2025. As chief strategist for the Foundation, she was the visionary for catalyzing the Age-Friendly Health Systems social movement. She is an elected member of the National Academy of Medicine and served on the independent Coronavirus Commission for Safety and Quality in Nursing Homes.

Dr. Fulmer is an attending nurse at Mount Sinai Hospital in New York City and an Adjunct Professor of Nursing and Medicine at New York University. Prior, she was a Distinguished Professor and Dean of Health Sciences at Northeastern University and Founding Dean of the New York University College of Nursing. Dr. Fulmer is nationally and internationally recognized as a leading expert in geriatrics and is also known for conceptualizing and developing the national NICHE program, as well as conducting research on the topics of elder abuse and neglect. She is the first nurse to have served on the board of the American Geriatrics Society. She is also the first nurse to have served as President of the Gerontological Society of America, which awarded her the 2019 Donald P. Kent Award for exemplifying the highest standards for professional leadership in the field of aging.



**Dan Hartman, M.D.**
**Director, Integrated Development, Gates Foundation**

Dan Hartman joined the foundation in 2012 as the director of Integrated Development and leads a team that provides technical expertise in product development. Under his leadership, Integrated Development works closely with the foundation's disease strategy teams to manage product pipelines from late discovery through registration by providing state of the art input in the areas of quantitative sciences/pharmacology, chemical manufacturing, and regulatory strategy. Integrated Development also manages investments in a variety of areas that will benefit numerous foundation strategies, most notably in the areas of regulatory systems, pharmacology focused model-based drug development, big data programs, novel formulations (including pediatrics) and low-cost manufacturing. From 2016-2018, he took on additional responsibility as the interim director of the Malaria program strategy, guiding the foundation's efforts towards eradication. He is currently a senior advisor to the Malaria team.

He joined the foundation after four years as president and CEO of Great Lakes Development Inc., a consulting company providing strategic and operational support for early drug development projects. Previously, he served as senior vice president of Product Development at deCODE genetics, executive director of Pfizer Global Research and Development, vice president of Global Clinical Development at Esperion Therapeutics, and clinical research positions at Eli Lilly & Company. He has also provided consultation to the biopharmaceutical venture capital community and serves as a member/advisor to several non-profit boards.

Dan served as a member of the NIH National Center for the Advancement of Translational Sciences (NCATS) and Cures Acceleration Network advisory board from 2016-2019. He was president of the American Society of Clinical Pharmacology and Therapeutics and the recipient of numerous awards including National Inventor of the Year in the Unites States. He received his bachelor's degree from Calvin College and his medical degree from Wayne State University. He trained in medicine and completed a fellowship in pulmonary medicine from Indiana University, where he was also chief medical resident.



**Jean M. Hebert, Ph.D. *(invited)***
**Program Manager, Health Science Futures**

Jean Hebert joined ARPA-H in August 2024 from the Albert Einstein College of Medicine where he served as a professor of genetics and neuroscience. Hebert is the founder of BE Therapeutics, a company focused on reversing age-related damage to brain tissue. His laboratory research focuses on stem cell transplantation, plasticity, neurodegeneration, and cortical health. In addition to his academic publications, Hebert is also the author of Replacing Aging, a book on regenerative medicine and the types of cellular damage accumulated in aging tissue.

Since childhood, Hebert has been interested in understanding how our bodies work and how to repair them. He has a doctorate in genetics from the University of California San Francisco and completed postdoctoral research at Stanford University studying the development of neurons that make up the neocortex.



**Holm Keller**
**Executive Chairman, Director, kENUP Foundation**

Holm Keller is the Chairman of kENUP Foundation. Previously, he acted as Executive Vice President for University Development and Innovation at Leuphana University of Lüneburg. Under his leadership, Leuphana became one of Germany's top universities, a well-respected innovation hub to its region and built an acclaimed new building with architect Daniel Libeskind.

Prior to Leuphana, Holm Keller held top management positions, including President Asia, at Bertelsmann Inc. in Shanghai, Seoul, Sydney, New York, and London. Before, he has been Associate Principal with McKinsey & Company Inc., where he was instrumental for building the Firm's global Accelerator Practice. Educated in Vienna and at Harvard's Kennedy School of Government, he started his career as a musical composer and an artistic producer.



**Cynthia Kenyon, Ph.D.**
**VP of Aging, Calico Life Sciences**

Cynthia Kenyon is one of the world's foremost authorities on the molecular biology and genetics of aging and life extension. Her early discovery that a single-gene mutation could double the lifespan of healthy, fertile roundworms overturned long-held ideas about aging: that it does not 'just happen' in a haphazard way but is subject to genetic control. Her pioneering studies led to the discovery of many longevity genes and pathways – including a universal hormone-signaling pathway that influences the rate of aging in multiple species, including mammals. Cynthia's research brings hope that therapies targeting this biology could extend healthspan and delay the onset of diseases associated with aging in people. In pursuit of this, in 2014 she joined a new company focused on health, well-being and longevity, Calico, as Vice President of Aging Research. Cynthia earned her PhD from the Massachusetts Institute of Technology and was a postdoctoral fellow with Nobel laureate Sydney Brenner in Cambridge, UK. Before joining Calico, she was a Distinguished Professor of Biochemistry and Biophysics at the University of California, San Francisco. Cynthia is a member of the US National Academy of Sciences, the National Academy of Medicine, and the American Academy of Arts and Sciences, and she is a former president of the Genetics Society of America. Her many awards include the Dickson Prize in Medicine, the Dan David Prize, the King Faisal International Prize for Medicine, La Fondation IPSEN Prize, and the American Association of Medical Colleges Award for Distinguished Research in Biomedical Sciences.



**Jim Yong Kim, M.D., Ph.D.**
**Sr. Advisor & Vice Chairman, Global Infrastructure Partners**

Jim Yong Kim is a Senior Advisor and Vice Chairman at Global Infrastructure Partners, a part of BlackRock, a fund that invests in infrastructure projects across several sectors around the world. From July 2012 to February 2019, Kim served as the 12th President of the World Bank Group. Soon after he assumed that position, the organization established two goals to guide its work: to end extreme poverty by 2030; and to boost shared prosperity, focusing on the bottom 40 percent of the population in developing countries. During Kim's tenure, the World Bank Group supported the development priorities of countries at levels never seen outside of a financial crisis. Along with partners, the World Bank achieved two successive, record replenishments of the institution's fund for the poorest countries. The World Bank Group also launched several innovative financial instruments, including facilities to address infrastructure needs, prevent pandemics, and help the millions of people forcibly displaced from their homes by climate shocks, conflict, and violence. A physician and anthropologist, Kim's career has revolved around health, education, and improving the lives of the poor. Before joining the World Bank Group, he served as the President of Dartmouth College and held professorships at Harvard

Medical School and the Harvard School of Public Health. From 2003 to 2005, Kim served as Director of the World Health Organization's HIV/AIDS department. He led WHO's "3 by 5" initiative, the first-ever global goal for AIDS treatment, which greatly expanded access to antiretroviral medication in developing countries. In 1987, Kim co-founded Partners In Health, a non-profit medical organization that now works in poor communities on four continents. Kim received a MacArthur "Genius" Fellowship, was recognized as one of America's "25 Best Leaders" by U.S. News & World Report, and was named one of TIME magazine's "100 Most Influential People in the World."



**Steven Kozlowski, M.D.**
**Chief Scientist, U.S. Food and Drug Administration**

Steven Kozlowski is the FDA's Chief Scientist. The Chief Scientist promotes, leverages, and leads cross-cutting, collaborative activities and initiatives that catalyze FDA science, innovation, and research to help the agency address its most pressing regulatory and public health questions and respond to emerging issues. The Office of the Chief Scientist supports the research foundation, science, and innovation that underpins the FDA's regulatory mission. It does this through a broad framework that encompasses scientific collaborations, laboratory safety, the transfer of FDA inventions to the private sector, scientific integrity in FDA policy and decision-making, the professional development of regulatory scientists, and conducting applied research and testing at the FDA, including in its National Center for Toxicological Research, Office of Analytical and Regulatory Laboratories, and Office of Specialty Laboratories and Enforcement Support.

Dr. Kozlowski brings extensive scientific, regulatory and management experience to the Office of the Chief Scientist, including a breadth of knowledge in pharmaceutical quality, immunology and research.

Prior to assuming the role of Chief Scientist, Dr. Kozlowski served as Director of the Office of Product Quality Assessment III (OPQA III) in the Office of Pharmaceutical Quality (OPQ) in the FDA's Center for Drug Evaluation and Research (CDER). In that role he led a team responsible for ensuring the quality of all the active ingredients and substances in products overseen by CDER, which includes everything from over-the-counter analgesics to complex biological products. QPQA III was created as part of a major reorganization of the Office of Product Quality, an important initiative designed to support greater agility, connectedness and influence. Dr. Kozlowski was part of the strategic planning and change management involved in that effort.

Prior to the OPQ reorganization, Dr. Kozlowski served for 18 years as the Director of the Office of Biotechnology Products (OBP) in CDER's Office of Pharmaceutical Quality, overseeing the quality of therapeutic biological products and a laboratory program with research in manufacturing science, immunology and bioassays. His tenure coincided with a phenomenal growth in the use

and impact of biological products, including the development of a new regulatory pathway for biosimilar biological products.

Dr. Kozlowski holds a bachelor's in science from Northwestern University, as well as a Doctor of Medicine with distinction from their Medical School. He trained in pediatrics at the University of Illinois. He has published extensively in a wide range of scientific areas relevant to the FDA mission from in vivo models for drug development to vaccine safety and from biosimilar uptake to epidemiology.



**Becca Levy, Ph.D.**
**Professor, Yale University**

Becca Levy is a professor of epidemiology and psychology at Yale School of Public Health. Her research explores psychosocial factors that influence older individuals' cognitive and physical functioning, as well as their longevity. She is credited with creating a field of study that focuses on how positive and negative age stereotypes, which are assimilated from the culture, can have beneficial and adverse effects, respectively, on the health of older individuals. Her research integrates longitudinal, experimental, and cross-cultural methods to identify opportunities for intervention.

Dr. Levy's research contributions have been recognized with numerous honors, including the Brookdale National Fellowship for Leadership in Aging, the Baltes Distinguished Research Achievement Award from the American Psychological Association, the Ewald W. Busse Research Award from the International Association of Gerontology and Geriatrics (awarded once every four years) and the Kalish Innovative Book Award from the Gerontological Society of America for her book *Breaking the Age Code: How Your Age Beliefs Determine How Long and Well You Live*.

Her work informs policy and public health practice. She has provided invited testimony to the United States Senate on the effects of ageism, contributed to briefs submitted to the United States Supreme Court in age-discrimination cases, and serves as a scientific advisor to the World Health Organization's Global Campaign to Combat Ageism.

Dr. Levy earned her PhD in Psychology from Harvard University and completed a postdoctoral fellowship at Harvard Medical School. Her research has been supported by the National Institute on Aging and the National Science Foundation.



**James C. Liao, Ph.D.**
**Former President, Academia Sinica; Distinguished Research Fellow, Institute of Biological Chemistry, Academia Sinica**

James C. Liao is a pioneer in Metabolic Engineering, Synthetic Biology, and Systems Biology. He received his BS degree from National Taiwan University and PhD from University of Wisconsin-Madison. After working as a research scientist at Eastman Kodak Company, Rochester, NY, he started his academic career at Texas A&M University in 1990 and moved to UCLA in 1997. He received numerous awards and recognitions, including the Presidential Green Chemistry Challenge Award (2010), the White House "Champion of Change" for innovations in renewable energy (2012), the ENI Renewable Energy Prize bestowed by the President of Italy in 2013, and the 2014 National Academy of Sciences Award for the Industrial Application of Science, the 2021 Samson Prime Minister's prize for innovation in alternative energy and smart mobility for transportation, and the Gregory N. Stephanopoulos Award for Metabolic Engineering in 2023. He is a member of the U.S. National Academy of Sciences, the U.S. National Academy of Engineering, the American Philosophical Society, and Academia Sinica in Taiwan. He is an Associate Member of the European Molecular Biology Organization (EMBO), a Fellow of the World Academy of Sciences (TWAS), and a Fellow of the National Academy of Inventors.



**Depei Liu, Ph.D.**
**Chinese Academy of Medical Sciences & Peking Union Medical College**

De-Pei Liu is a professor at the Institute of Basic Medical Sciences & School of Basic Medicine affiliated to the Chinese Academy of Medical Sciences (CAMS) & Peking Union Medical College (PUMC), and Director of China's State Key Laboratory of Common Mechanism Research for Major Diseases (SKLCMRMD).

Dr. Liu is a Member of the Chinese Academy of Engineering (CAE), a Member of the U.S. National Academy of Medicine (NAM), and a Fellow of The World Academy of Sciences (TWAS). He also served as Co-Chair of the InterAcademy Partnership for Health (IAPH) from 2016 to 2022.

Dr. Liu is a medical molecular biologist. He received his PhD from PUMC in 1986 and completed postdoctoral training at the University of California, San Francisco (1987–1990). Dr. Liu's research focuses on functional genomics and gene regulatory networks, molecular mechanisms of cardiovascular diseases, and targeted gene repair. He has published more than 200 SCI papers, cited over 10,000 times. His recent work has been published in leading journals such as *Nature Metabolism*, *Science Immunology*, *Nature Cell Biology*, *European Heart Journal*, and *Circulation*.

In recent years, Dr. Liu has played a key role in advancing China's national aging research agenda. He has been actively involved in the establishment of the Peking Union Innovation Hub (launched in February 2026) and the Institute on Aging and Health (launched in March 2026), contributing to the development of an integrated innovation ecosystem for healthy longevity.



**Roderic Pettigrew, Ph.D., M.D.**
**Robert A Welch Professor, School of Engineering Medicine, Texas A&M University**

**Robert A Welch Foundation**

Roderic Ivan Pettigrew, PhD, MD, is the Robert A. Welch Professor of Medicine and was CEO of Engineering Health (EnHealth) at Texas A&M University, where he also served as the inaugural dean of the School of Engineering Medicine. At the request of the Chancellor of the statewide Texas A&M University System, he served as Vice Chancellor for Health & Strategic Initiatives for the TAMU System. Dr. Pettigrew previously led the US National Institute of Biomedical Imaging and Bioengineering (NIBIB) as its founding Director, from 2002 to 2017, where he significantly advanced medical technologies and secured high returns on research investments.

He was recruited to the NIH based on his prior career as a pioneer in cardiovascular 4D MRI having helped develop some of the earliest technologies. Dr. Pettigrew led the creation of the Engineering Medicine (ENMED) program as the Executive Dean for ENMED and the CEO of EnHealth at Texas A&M. Subsequently with the creation of the new School of Engineering Medicine, he was appointed its Inaugural Dean. His focus with EnHealth and ENMED is to integrate engineering into medical education to create innovative physician-engineers, or Physicianeers, who simultaneously earn MD and Master of Engineering Innovation in Medicine degrees in four years. Notably, ENMED students are also required to invent a solution to a healthcare challenge.

Dr. Pettigrew, an expert in health technologies and imaging, holds a PhD in Applied Radiation Physics from MIT and completed his medical training in Nuclear Medicine at UCSD. His work includes non-invasive cardiovascular imaging and research on coronary atheroma and strategies to expand diagnostic boundaries and prevention. He is an editor of the recent book Biomechanics of Coronary Atherosclerotic Plaque: From Model to Patient, the first comprehensive text on this topic. Elected memberships include the National Academy of Medicine, the National Academy of Engineering, the National Academy of Inventors, the American Academy of Arts and Sciences, and the National Academy of Sciences, India. Awards include the Pierre Galletti Award (highest honor) of the American Institute of Medical and Biological Engineering, the Inaugural Gold Medal of the Academy of Radiology Research, the Spirit of the Heart Award of the Association of Black Cardiologists, the Gold Medal of the Radiological Society of North America, the Arthur M. Bueche Award of the National Academy of Engineering, the Vannevar Bush Award (highest honor) of the US National Science Board, the 2023 Boston Globe's STATUSList as one of the nation's Ultimate Leaders in Life Sciences,

and the 2024 American Heart Association Research Achievement Award, their highest research honor.



**Thomas Rando, M.D., Ph.D.**
**Director of the Broad Stem Cell Research Center, University of California Los Angeles**

Tomas Rando is the Director of the Broad Stem Cell Research Center at UCLA where he is a professor of Neurology and Molecular, Cell, and Developmental Biology. Research in the Rando laboratory lies at the intersection of basic stem cell biology and the biology of aging. Dr. Rando's research has revealed how stem cells respond to cues from their environment to modulate their ability to maintain tissues or engage in tissue repair. His laboratory is credited with pioneering work in stem cell aging that revealed how factors in blood can promote stem cell activity in young individuals and suppress it in older individuals. This work has led to novel clinical trials for age-related disorders.

Dr. Rando has published over 200 peer-reviewed articles and has trained over 100 students, fellows, and visiting scholars, most of whom have continued in biomedical research careers. He has received numerous honors and awards for his work, including an NIH Director's Pioneer Award, an Ellison Medical Foundation Senior Scholar Award in Aging, the "Breakthroughs in Gerontology" Award from the American Federation for Aging Research, and a Transformative Research Award from the NIH. He is a Fellow of the American Association for the Advancement of Science, a member of the American Institute for Medical and Biological Engineering, the National Academy of Medicine, and the American Academy of Arts and Sciences.



**Martine Rothblatt, Ph.D., J.D.**
**CEO, United Therapeutics Corporation**

Martine Rothblatt is the Chairperson & CEO of United Therapeutics Corporation (UT). She started UT to save her youngest child's life from a rare illness after having previously created SiriusXM satellite radio and other satellite communications systems. She is also responsible for several innovations in aviation and architecture, including the design and piloting of an electric helicopter to Guinness world records and creating the world's largest zero carbon footprint building. Her company is now saving hundreds of lives a year with medicines for pulmonary hypertension and neuroblastoma, and by restoring otherwise discarded donor lungs to transplantability. UT is also in pre-clinical development of manufactured kidneys, hearts and lungs to be delivered via

autonomously flown electric vertical takeoff and landing (eVTOL) systems. Dr. Rothblatt led the efforts to create the first genetically-modified porcine hearts and kidneys transplanted into humans (xenotransplantation), resulting in a life-saving xeno-heart transplant in January 2022. She also leads the project to create 3D printed transplantable organs, which in June 2022 resulted in the world's most complex 3D printed object, a human lung made of precisely positioned peptides defined by 44 trillion voxels. Dr. Rothblatt earned her Ph.D. in Medical Ethics from the Royal London College of Medicine and Dentistry after earning JD and MBA degrees from UCLA, which also recently awarded her the UCLA Medal, its highest honor. She is an inventor on several patents and the author of several books, the most recent of which pertain to artificial cognition and cyber-consciousness.



**John (Jack) W. Rowe, M.D.**
**Julius B. Richmond Professor of Health Policy and Aging Health Policy and Management, Columbia University Mailman School of Public Health**

John Rowe is the Julius B. Richmond Professor of Health Policy and Aging at the Columbia University Mailman School of Public Health. Previously, from 2000 until his retirement in late 2006, Dr. Rowe served as Chairman and CEO of Aetna, Inc., one of the nation's leading health care and related benefits organizations. Before his tenure at Aetna, from 1998 to 2000, Dr. Rowe served as President and Chief Executive Officer of Mount Sinai NYU Health, one of the nation's largest academic health care organizations. From 1988 to 1998, prior to the Mount Sinai-NYU Health merger, Dr. Rowe was President of the Mount Sinai Hospital and the Mount Sinai School of Medicine in New York City.

Before joining Mount Sinai, Dr. Rowe was a Professor of Medicine and the founding Director of the Division on Aging at the Harvard Medical School, as well as Chief of Gerontology at Boston's Beth Israel Hospital. He was Director of the MacArthur Foundation Research Network on Successful Aging and is co-author, with Robert Kahn, Ph.D., of Successful Aging (Pantheon, 1998). Currently, Dr. Rowe leads the MacArthur Foundation's Network on An Aging Society .

Dr. Rowe was elected a Fellow of the American Academy of Arts and Sciences and a member of the Institute of Medicine of the National Academy of Sciences. He serves on the Board of Trustees of the Rockefeller Foundation and is Chairman of the Board of Trustees at the Marine Biological Laboratory in Woods Hole, Massachusetts and the Board of Overseers of Columbia University's Mailman School of Public Health. He is Chair of the Advisory Council of Stanford University's Center on Longevity, and was a founding Commissioner of the Medicare Payment Advisory Commission ( Medpac) and Chair of the board of Trustees of the University of Connecticut.



**Michael Snyder, Ph.D.**
**Stanford W. Ascherman Professor of Genetics and Director, Center for Genomics and Personalized Medicine, Stanford University School of Medicine**

Michael Snyder is the Stanford W. Ascherman Professor and Director of the Center for Genomics and Personalized Medicine. Dr. Snyder received his Ph.D. from the California Institute of Technology and completed postdoctoral training at Stanford University.

A pioneer of Precision Medicine, Dr. Michael Snyder invented many technologies that enable 21st century healthcare, including systems biology, RNA sequencing, and protein chip technologies. He has led groundbreaking research in genomics, biotechnology, and personalized health, with a focus on how genetic variation and lifestyle affects individual health and disease, heralding a new and more effective approach to healthcare. Dr. Snyder initiated the big data approach to healthcare through his work using omics to detect early-stage disease, including wearables to detect infectious diseases like COVID-19, CGMs to subtype prediabetes and at-home microsampling to measure hundreds of molecules from a single drop of blood. He is known for his pioneering deep data study where he was both a subject and researcher, which laid the groundwork for precision health and medicine. He is the first researcher to gather petabytes of data on individuals, which is 1 million - 1 trillion times more data than the average clinician collects. He has published over 1000 papers and is one of the most cited scientists.

Dr. Snyder's contributions to science have been recognized with numerous awards and honors, including election to the American Academy of Arts and Sciences. He is also a successful entrepreneur, having co-founded 20 companies (including 2 unicorns) with a combined enterprise value exceeding $6 billion.



**Mildred Z. Solomon, Ed.D.**
**Professor of Global Health & Social Medicine, Harvard Medical School, President Emerita, The Hastings Center for Bioethics**

Mildred Z. Solomon is Professor of Global Health and Social Medicine (part-time) at Harvard Medical School, where she directs the school's in-person and online Fellowships in Bioethics. Through these fellowship programs, she has trained over 250 scientists, physicians and other health professionals from across the United States and around the world. She is also President Emerita of The Hastings Center for Bioethics, the nation's founding bioethics research institute, where she served as president for 11 years from 2012 to 2023. In addition to her leadership in bioethics, Dr. Solomon is an implementation scientist who has designed and evaluated a wide variety of programs aimed at enhancing evidence-based practice and served as Senior Director for

Implementation Science at the Association of American Medical Colleges (AAMC) from 2010 - 2012. Her bioethics research covers a broad spectrum of issues, including end-of-life care, organ transplantation, professional ethics, and responsible conduct of research. She serves as a consultant to government agencies and foundations and has been widely cited in the mainstream media, including the Wall Street Journal, National Public Radio, New York Review of Books, The Daily Beast, Forbes, Science News, The Scientist and other outlets. The 2024 recipient of the University of Chicago's MacLean Center Prize in Clinical Ethics and Health Outcomes, Dr. Solomon holds a B.A from Smith College and a doctorate in educational research methods from Harvard University.



**TAN Chorh Chuan, Ph.D.**
**Chairman, Agency for Science, Technology & Research**

Prof Tan Chorh Chuan was appointed the Chairman of the Agency for Science, Technology and Research (A*STAR) on 1st October 2023. He is concurrently the Chairman of the MOH Office for Healthcare Transformation (MOHT). He has been appointed Alternate Member of the Council of Presidential Advisers on 1st September 2026. Prof Tan was the Permanent Secretary (National Research and Development) and Permanent Secretary (Public Sector Science and Technology Policy and Plans Office), Prime Minister's Office, from 1st October 2023 to 31st August 2026. In these capacities, he led the development of the Research Innovation and Enterprise 2030 plan, and the strengthening of science and engineering capabilities in the public service. He was the inaugural Chief Health Scientist and founding Executive Director of the new Office for Healthcare Transformation in Singapore's Ministry of Health from 1st January 2018 to 30th September 2023. He was also the Chair of MOH's Healthier SG Implementation Office till 2024. He served as the President of the National University of Singapore from 2008 to 2017, and held the positions of NUS Provost, then Senior Deputy President from 2004 to 2008. He was previously the Dean of the NUS Faculty of Medicine and served as the Director of Medical Services, Ministry of Health from 2000 to 2004, in which capacity he was responsible for leading the public health response to the 2003 SARS epidemic. He was also the Chairman of the Board of the National University Health System from 2011 to 2018.



**Robert Tepper, M.D.**
**Co-Founder and Partner, Third Rock Ventures**

Bob Tepper is a co-founder and Partner of Third Rock Ventures and a distinguished physician-scientist with more than 30 years of experience building and operating leading research and development organizations in the biotech industry. Bob focuses on the formation, development and scientific strategy of new Third Rock companies. He also assumes active leadership roles in portfolio companies.

Prior to joining Third Rock, Bob served as President of Research and Development at Millennium Pharmaceuticals and was vital in its expansion from a drug discovery company to a fully integrated biopharmaceutical company. Prior to joining Millennium, he served as principal investigator in the laboratory of tumor biology at the Massachusetts General Hospital Cancer Center. Bob is also a founder and former member of the scientific advisory board of Cell Genesys/Abgenix Inc.

Bob currently serves as an adjunct faculty member at Harvard Medical School and Massachusetts General Hospital and is a member of the Massachusetts General Hospital Research Institute Advisory Council. He has also served as a Council member for the National Human Genome Research Institute (NHGRI) and the National Center for the Advancement of Translational Sciences (NCATS) at the National Institutes of Health (NIH). Bob holds an A.B. in biochemistry from Princeton University and received his M.D. from Harvard Medical School.



**Lina Walker, Ph.D.**
**Senior Vice President, Global Thought Leadership, AARP**

Lina Walker is Senior Vice President of Global Thought Leadership at AARP, the largest nonprofit, nonpartisan organization in the United States dedicated to empowering people 50 and older to choose how they live as they age. She leads AARP's International, Thought Leadership, and Brain Health departments, driving evidence-based insights and cross-sector collaboration to strengthen public policies and private-sector practices that support longer, healthier, and more financially resilient lives.

With more than 20 years of experience spanning academia, state government, a congressional agency, and the nonprofit sector, Dr. Walker brings a distinctive multisector perspective to advancing solutions on aging, health, long-term care, and financial security. Her work focuses on translating research into action—shaping global dialogue, building partnerships, and seeding innovative programs that deliver real-world impact.

Dr. Walker holds a master's and doctorate in economics from the University of Michigan and lives in Washington, D.C., with her family.



**Joon Yun, M.D.**
**President and Managing Partner, Palo Alto Investors**

Dr. Joon Yun is President and Managing Partner of Palo Alto Investors, LP, a hedge fund founded in 1989. Board certified in radiology, Joon served on the clinical faculty at Stanford from 2000-2006. Joon has served on numerous boards, and he is currently a trustee of the Salk Institute. Joon and his wife Kimberly launched the $1 million Palo Alto Longevity Prize and donated $2 million to support the National Academy of Medicine's Longevity Grand Challenge. He received his M.D. from Duke Medical School and B.A. from Harvard College.

# 2026 Grand Prize Awardees

**Grand Prize Winner (TWO-WAY TIE)**



**Hans Keirstead**, Ph.D., Chairman | Immunis, Inc.

**Catalyst Sponsor**: U.S. National Academy of Medicine

**Catalyst year:** 2025

**Grand Prize Project**: IMM01-STEM: A First-in-Class Regenerative Biologic Restoring Muscle Function, Metabolism, and Quality of Life in Aging Adults

IMM01-STEM is a multi-active biologic developed by Immunis, with randomized Phase 2 clinical evidence of supporting immune system balance, stimulating muscle regeneration, promoting medically-significant muscle function, restoring metabolism, decreasing pain and increasing quality of life, via a range of signaling pathways. Additionally, blood protein analyses revealed coordinated changes across immune cell signaling, tissue repair, and muscle regeneration pathways. There have been no reports of severe adverse events attributed to IMM01-STEM. IMM01-STEM is being investigated as a stand-alone immunotherapy, and as a combinational therapy alongside GLP-1s to preserve and restore lean mass while enhancing fat loss. Published preclinical studies further demonstrate improvements in lean mass, fat mass, muscle fiber quality, physical activity, glucose handling and liver health. IMM01-STEM may become the first approved drug for age-related muscle and metabolic decline, a breakthrough applicable to the universal biology of human aging.

**Grand Prize Winner (TWO-WAY TIE)**



**David Pepin**, Ph.D., Associate Professor of Surgery | Massachusetts General Hospital

**Catalyst Sponsor**: U.S. National Academy of Medicine

**Catalyst year:** 2021

**Grand Prize Project**: The MenoGo Project: Restoring Ovarian Hormone Production to Prevent Menopause

Every woman is born with a fixed supply of ovarian follicles, small nests responsible for egg maturation and female hormone production. Over a lifetime, these follicles are gradually used up, and when they run out, the result is an abrupt collapseh of hormone production: menopause. Menopause is not just an inconvenience; it is associated with hot flashes, bone loss, heart disease, cognitive symptoms, and women who reach it earlier have reduced lifespans. Current hormone replacement therapy (HRT) patches over only part of the problem and cannot replicate the full complexity of what a healthy ovary produces. Our laboratory discovered something that changes this picture entirely. A hormone called AMH, which limits how many follicles can grow at a time, also unexpectedly activates a hidden backup system of hormone production inside the ovary. Preliminary evidence suggests this occurs in cats and mice, and likely could be activated in most mammals, including humans. The MenoGo project aims to harness this discovery by developing interventions to restore youthful AMH levels at perimenopause, the window just before follicle depletion is complete, to activate the ovary's own backup hormone-producing capacity, thus treating menopause at the source. This would restore the full suite of ovarian hormones, regulated naturally by the body, preserving cardiovascular, bone, and brain health, and potentially extending healthy life. MenoGo is moving from a paradigm-shifting scientific discovery toward a real treatment that could benefit the billions of women worldwide who will otherwise inevitably experience menopause and its consequences.

**Second Place Winner (TWO-WAY TIE)**



**Victoria Chuchina**, CMO | CheckEye

**Catalyst Sponsor**: EIT Health of the European Union

**Catalyst year:** 2025

**Grand Prize Project:** AI-Powered Retinal Screening for Early Detection of Chronic Diseases

What if one photo of the eye could reveal the hidden chronic diseases that shorten our lives? CheckEye turns a 3-minute retinal photo into an early warning system for chronic diseases. Any nurse or pharmacist can take the photo, and our AI analyzes it in the cloud. No specialist doctor, no referral, no waiting list. Screening happens where people already are: pharmacies, clinics, and community health points.

Founded in Ukraine in January 2022, weeks before the full-scale invasion, CheckEye was built to work anywhere, even where doctors and infrastructure are scarce.

Our vision: one eye photo, 50+ chronic diseases, accessible to every person on the planet.

**Second Place Winner (TWO-WAY TIE)**



**Mohammad Mahoor**, Founder and CEO | DreamFace Technologies, LLC

**Catalyst Sponsor**: U.S. National Academy of Medicine

**Catalyst year:** 2022

**Grand Prize Project:** Ryan®: An AI Wellness Ecosystem for Healthy Longevity

The need. By 2050, ~1.6 billion people will be ages 65+ (WHO); dementia prevalence will reach 139 million; late-life depression affects ~14% of adults 60+. Roughly 77% of Americans ages 50+ want to age at home, yet continuous wellness, cognitive, and mental-health support is unavailable outside expensive institutions, and the geropsychology workforce to deliver it is not coming.

The project. Ryan® is DreamFace's clinically validated, commercially deployed AI wellness ecosystem built to close that gap for community-dwelling older adults aging in place. Three forms share one tested AI core: the Ryan® V5.0 Wellness Robot (deployed at Eaton Senior Communities, CO, and St. Francis Health Services of Morris, MN); the MyRyan® Mobile App in 12 languages (pilot at Ascent Living Communities); and a forthcoming smart-ring integration for passive sleep, activity, and heart-rate sensing. Ryan® detects early signs of cognitive decline and depression, delivers evidence-based engagement and therapy, and tracks wellness across the ICAA Seven Dimensions.

The evidence. In the NIH/NIA-funded R44 in-home study (N=18 older adults with early-stage AD/ADRD, 8–10 weeks), Ryan® produced a mean 3.3-point improvement on SLUMS (cognition; higher is better) and 2.88-point improvement on PHQ-9 (depression; lower is better), with 887 voluntary hours (mean 46 min/day) and no novelty effect — comparable to or exceeding Cognitive Stimulation Therapy benchmarks (Cochrane SMD 0.41), delivered autonomously in the participant's home.

The human impact. Two months with Ryan® moved depression scores toward minimal and cognition back into the normal range — the difference between continuing to live independently and transitioning to higher care. Delivered without travel, without a specialist, in the participant's own language, this is a working model of healthy aging in place. With rapid advances in Agentic AI, the Grand Prize would scale Ryan® to support healthy aging in homes worldwide.

**Third Place Winner**



**Xiaoming Shi,** Ph.D., Deputy Director General | Chinese Center for Disease Control and Prevention/Chinese Academy of Preventive Medicine

**Catalyst Sponsor**: Chinese Academy of Medical Sciences

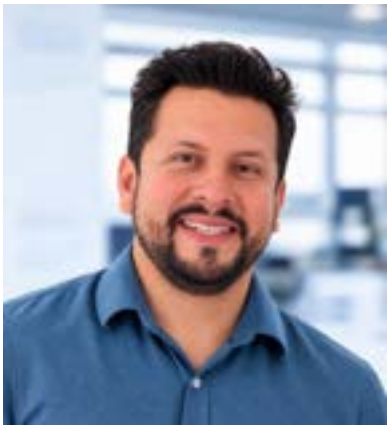
**Catalyst year:** 2021

**Grand Prize Project:** Optimal Health for the Oldest Old: Redefining Metrics and Translating Healthy Longevity

Overweight, hypertension, and dyslipidemia are common in older adults, yet health targets derived from younger populations may not be appropriate for the oldest-old. Using large longitudinal cohorts in China, this project was the first to define optimal ranges of blood pressure, blood lipids, and body mass index for the oldest-old, challenging one-size-fits-all approaches to late-life health management. The project also demonstrated that adopting a healthy lifestyle remains beneficial even in later life and identified an age-dependent shift in the major determinants of healthy longevity: leisure activities play a greater role in earlier old age, while dietary nutrition becomes increasingly important at advanced ages.

The team has translated these discoveries into national standards for weight and blood pressure management and developed an age- and function-oriented approach to precision geriatric health management. These advances have helped reduce health-risk misclassification for approximately 13 million older adults in China, with estimated annual medical cost savings of RMB 20.45 billion, while also contributing evidence to major international reports and guidelines. Building on a large biobank and multi-omics platform, the project will next identify biomarkers and biological aging trajectories, develop precision nutrition and other targeted interventions, and translate these advances into scalable strategies for extending healthy life expectancy across diverse populations.

## Honorable Mention Awardees



**Juan Carlos Forero Oliveros**, Ph.D., Professor and Researcher in Biomedical Sciences and Biotechnology | Universidad de Valparaíso

**Catalyst Sponsor**: National Agency for Research and Development of Chile

**Catalyst year:** 2024

**Grand Prize Project:** A Bioactive Artificial Saliva Spray to Improve Functional Health and Quality of Life in Older Adults



**Jung-Tang Huang**, Ph.D., Distinguished Professor | National Taipei University of Technology

**Catalyst Sponsor**: Academia Sinica

**Catalyst year:** 2020

**Grand Prize Project:** Democratizing Cardiovascular Diagnostics: A Portable Lab-on-a-Chip for Healthy Longevity



**Pete R Jones**, Ph.D., Reader in Optometry & Visual Science | City St George's, University of London

**Catalyst Sponsor**: UK Research and Innovation

**Catalyst year:** 2021

**Grand Prize Project:** Preventing avoidable blindness through smart home-monitoring of vision



**Atsushi Mahara**, Ph.D., Laboratory Chief | National Cerebral and Cardiovascular Center

**Catalyst Sponsor**: Agency for Medical Research and Development of Japan

**Catalyst year:** 2024

**Grand Prize Project:** Development and clinical application of Ostrich-derived Freeze-Drying Small Diameter Decellularized Vascular Graft

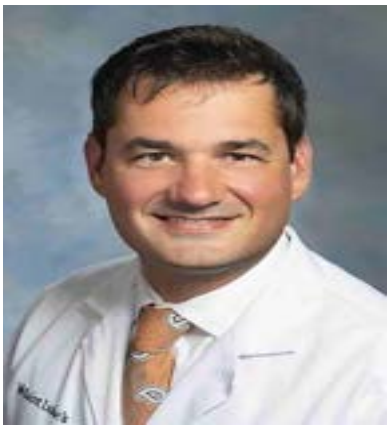


**Elizabeth Murnane,** Ph.D., Assistant Professor | Dartmouth College

**Catalyst Sponsor**: U.S. National Academy of Medicine

**Catalyst year:** 2021

**Grand Prize Project:** From Musical Medicine to Adaptive Care Infrastructure: Designing an Ecosystem of Person-Centered Technologies for Healthy Longevity



**Andrew J. Sauer**, M.D., Vice President for Research | BJC Saint Luke's

**Catalyst Sponsor**: EIT Health of the European Union

**Catalyst year:** 2024

**Grand Prize Project:** From Cath Lab to Bedside: A Non-Invasive AI Platform That Brings Intracardiac Pressure Measurement to Every Older Adult with Heart Failure



**Teh Bin Tean,** M.D., Ph.D., Deputy Chief Executive Officer (Enterprise & Venture) | National Cancer Centre Singapore

**Catalyst Sponsor**: Ministry of Health of Singapore

**Catalyst year:** 2020

**Grand Prize Project:** Multi-Tissue Platform for Next-Generation Mechanistic Dissection and Therapeutic Targeting of Sarcopenia

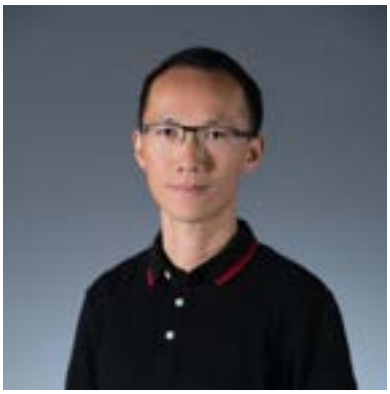


**Liangyuan WEN**, M.D., Professor and Chief Physician | Beijing Hospital, National Center for Gerontology, Chinese Academy of Medical Sciences & Peking Union Medical College

**Catalyst Sponsor**: Chinese Academy of Medical Sciences

**Catalyst year:** 2021

**Grand Prize Project:** The Posterior Fulcrum Support Strategy: A Novel Paradigm for the Reduction and Global Promotion of Geriatric Hip Fracture Care



**Chenshu Wu,** Ph.D., Associate Professor | The University of Hong Kong

**Catalyst Sponsor**: Research Grants Council of the Hong Kong Special Administrative Region, China

**Catalyst year:** 2022

**Grand Prize Project:** ConCare: A Multimodal Contactless Sensing System for Early Neurodegenerative Detection and Continuous Eldercare

## Summit Planning Committee

The NAM team would like to express its sincere gratitude to members of the Summit Planning Committee who were instrumental in developing this program.

**Victor Dzau, M.D.**
James B. Duke Distinguished Professor of Medicine,

Chancellor Emeritus, and Director of the Mandel Center
Duke University

**Hana El-Samad, Ph.D.**
Senior Vice President and Director, Institute of Computation
Altos Labs

**Luigi Ferrucci, M.D., Ph.D.**
Scientific Director
National Institute on Aging

**Mehmood Khan, M.D.**
CEO
Hevolution

**Thomas Rando, M.D., Ph.D.**
Director of the Broad Stem Cell Research Center
University of California Los Angeles

**Erwin Tan, M.D.**
Senior Director of Health
AARP Thought Leadership

## ACKNOWLEDGMENTS

The NAM expresses its gratitude to the following sponsors who provided support for the Healthy Longevity Global Competition: **Johnson & Johnson Innovation**; **John and Valerie Rowe**; **United Therapeutics Corporation**; **Anthony J. Yun** and **Kimberly A. Bazar**; **The John A. Hartford Foundation**; the **Bia-Echo Foundation**; and the **Yun Family Foundation**.

The NAM also expresses its gratitude to the **American Federation for Aging Research (AFAR)** for its instrumental support and administration during the 2020 cycle of the NAM Catalyst Awards.

### Co-Chairs of the Global Competition

The NAM acknowledges the essential guidance and leadership of the co-chairs of the Healthy Longevity Global Competition who also led the Selection Committee for the US-based NAM Catalyst Awards (2020-2025) and Grand Prize Phase (2026). They have included:

- **Roderic Pettigrew, MD, PhD**, Texas A&M University (2021-present)
- **Timothy Evans, PhD**, Concordia University (2022-present)
- **Feng Zhang, PhD**, Massachusetts Institute of Technology (2025)
- **H. Robert Horvitz, PhD**, Massachusetts Institute of Technology (2020-2021)
- **Tachi Yamada, MD,** Frazier Healthcare Partners (2020-2021)

### Selection Committee for the Grand Prize

The NAM would like to thank the members of the Selection Committee for the Grand Prize Phase of the Global Competition for their thoughtful input that informed the final award decisions.

- **Timothy Evans, PhD**, Concordia University *(Co-chair)*
- **Roderic Pettigrew, MD, PhD**, Texas A&M University *(Co-chair)*
- **Nir Barzilai, MD**, Albert Einstein College of Medicine
- **Vadim Gladyshev, PhD,** Brigham and Women's Hospital, Harvard Medical School
- **Marcia Haigis, PhD**, Harvard Medical School
- **Yukihiro Hisanaga**, Japan Agency for Medical Research and Development
- **S. Jay Olshansky, PhD,** University of Illinois, Chicago
- **Xiangbin Pan, MD, PhD,** Chinese Academy of Medical Sciences Fuwai Hospital, National Center for Cardiovascular Disease
- **Felipe Sierra, PhD,** Geroscience Consulting
- **Y. Henry Sun, PhD,** Distinguished Research Fellow, Institute of Molecular Biology

- **Say Beng Tan, PhD, MSc, MA,** National Medical Research Council, Singapore
- **Bruno Vellas, MD, PhD,** CHU Toulouse, European Alzheimer's Disease Consortium
- **Davide Vetrano**, **MD, PhD,** Aging Research Center, Karolinska Institutet

## Global Collaborators

Finally, NAM extends its heartfelt appreciation and deep gratitude to the global collaborator organizations and their dedicated staff, whose commitment, expertise, and tireless efforts have been essential throughout the seven years of the Global Competition. Their collaboration and continued support helped bring this ambitious initiative to life, strengthen international partnerships, and advance innovative solutions for healthy longevity around the world. The success of the Healthy Longevity Global Competition would not have been possible without their invaluable contributions. The global collaborators included:

- Academia Sinica
- Agency for Medical Research and Development of Japan
- Chinese Academy of Medical Sciences
- EIT Health of the European Union
- The Chinese University of Hong Kong & the University of Hong Kong
- Ministry of Health of Singapore
- National Academy of Medicine of the United States
- National Agency for Research and Development of Chile
- National Institute on Aging, National Institutes of Health of the United States
- Research Grants Council of the Hong Kong Special Administrative Region, China
- UK Research and Innovation

**Map of National Academy of Sciences Building**

