HEVOLUTION Global Healthspan Sumit 2025

www.ghs2025.con

4 -5 February at the Four Seasons Hotel Kingdom Center, Riyadh, Saudi Arabia



Global Healthspan Summit 2025

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Event Details

Hosted by Hevolution Foundation, the second edition of the Global Healthspan Summit, under the theme: Architecting The Future, will bring together key stakeholders in the global healthspan space to facilitate action-based conversations and drive impact around catalyzing research, entrepreneurship, investment and international collaboration in the emerging field of healthspan science. This actionoriented Summit is guided by Hevolution Foundation's vision to extend heathy lifespan for all of humanity.



9:00am – 5:45pm



Four Seasons Hotel Kingdom Center, Riyadh, Saudi Arabia



4 – 5 February, 2025



www.ghs2025.com



Global Healthspan Summit 2025

Why Attend GHS?

GHS serves as a global platform for unveiling groundbreaking advancements in geroscience, fostering collaboration to address the universal challenge of aging, and showcasing Saudi Arabia's leadership through the Hevolution Foundation. It is your time to connect with the brightest minds and international experts and visionaries. By engaging with us, you can amplify the conversation on healthy aging, shape public perception, and influence policies, making GHS not just an event but a movement to redefine aging and improve quality of life worldwide.



Five Key Themes



The Macro Case

What next?



Ecosystem Trends

How do we develop the ecosystem?



State of Science

Where do we stand?



The Long View

Where will this lead in the future?



Radical Change

What will it take?

Global Healthspan Summit 2025

HEVOLUTION FOUNDATION is a global non-profit dedicated to advancing the emerging healthspan science field. We provide grants and early-stage company investments to incentivize independent research and entrepreneurship that drive transformative innovations to extend healthy years of life for people everywhere.

OUR COMMITMENT is clear: we're focused on increasing the number of safe and effective treatments that reach the market, accelerating the drug development process, and making these therapies accessible for everyone. With an annual budget of up to \$1 billion, we are actively growing the number of researchers worldwide focusing on aging, expanding the number of companies dedicated to tackling this challenge, and attracting substantial investment to aging research.

GLOBAL IMPERATIVE: While life expectancy has increased, the quality of those added years often falls short. We are living longer, but we are spending more years living with the symptoms of aging such as cardiovascular disease, cancer, dementia, and frailty. By 2050, the global population over 60 years is set to double to 2 billion. What is more, two-thirds of people over 60 will live in low- and middle-income countries. Health and economic systems are ill-equipped to handle rapidly aging populations and are facing unprecedented financial pressure from rising costs and shrinking workforces.

UNWAVERING COMMITMENT: Every human has the right to live a healthier life, whatever their circumstances. Hevolution is dedicated to making aging healthier for everyone. With a budget of up to \$1 billion per year, Hevolution is investing in cutting-edge science to understand and address the root causes of aging.

HEVOLUTION AIMS TO:

- 1. Increase the number of safe and effective treatments entering the market
- 2. Compress the timeline of drug development, using the latest tools and technologies
- 3. Increase accessibility to therapeutics that extend healthy lifespan for the benefit of all humanity

OUR MISSION is to shift the global conversation from simply extending lifespan to enhancing healthspan. In two-short years since operationalizing in 2021, we've already allocated over \$400 million to ignite progress. As the largest philanthropic healthspan funder, we're proud to accelerate our vision to convene and catalyze this field.



HEVOLUTION WILL ACHIEVE THIS BY:

- 1. Increasing the number of researchers in geroscience/healthspan science globally
- 2. Expanding the number of companies working in the field
- 3. Attracting funding to the field of aging

DEDICATION TO SCIENCE: Aging results from the accumulation of molecular and cellular damage, leading to a growing risk of disease over time. In fact, aging is the number one risk factor for most chronic diseases. Hevolution supports innovation in life sciences and medicine that focuses on the biology of aging itself, rather than the individual diseases it causes. Embracing the power of collaboration and partnership, Hevolution supports innovative, peer-reviewed science for a wide range of scientific areas related to understanding the complex biological processes behind aging.

STRATEGIC INVESTMENTS: Aging science is a promising, essential part of healthcare investment with high untapped potential to extend healthy human life in the 21st century. As an impact-driven venture capital fund, Hevolution helps make emerging healthspan technologies more accessible and less risky for the market. Hevolution is redefining aging science as a viable investment by delivering needed capital, mitigating the technical, clinical, regulatory, and investment risks inherent in the health sector, and incentivizing a greater focus on prevention. As a global non-profit, Hevolution can take more significant risks to give promising therapies that could improve aging on a worldwide scale a chance.

Science Grants

Kingdom of Saudi Arabia

- HF-KSA: \$5.2 million is a two-year grant program to create the first cohort of aging researchers in Saudi Arabia, funding 11 grantees from King Faisal Specialist Hospital & Research Center, King Abdullah International Medical Research Center, King Abdullah University of Science and Technology, and other prestigious institutions to explore areas such as the microbiome, aging biomarkers, and senescence
- HF-SAP (2024 Hevolution Foundation Saudi Arabia Postdoctoral Fellowship): (\$1.9 million) program aims to develop and introduce new Saudi scientists to the field of aging research by facilitating their development as creative and innovative future scholars in the field

International

- **HF-NI (New Investigator Awards):** \$20.2 million to expand and support early-career researchers through the American Federation for Aging Research (AFAR)
- HF-GRO (Hevolution Foundation Geroscience Research Opportunities Program): \$230 million to fund pre-clinical projects in aging biology and translational geroscience on an international scale
- **HF-PTG (Hevolution Foundation Postdoctoral Training in Geroscience):** Over \$5 million to identify accomplished PhD/MD/PhD candidates specializing in the aging biology and/or geroscience
- HF-GLA (Hevolution Foundation Geroscience in Latin America): \$5 Million in an international effort to expand, accelerate
 progress, and foster talent in biology of aging and geroscience research in Latin America. The major goal is to identify and
 support promising research that will contribute long-term towards improving healthy lifespan for the betterment of all of
 humanity
- **HF-AGE Hevolution Foundation Advancing Geroscience Efforts:** Over \$27 million for the program to fund research deemed meritorious by the U.S. National Institute on Aging that failed to secure funds; supporting nine innovative projects in areas such as mitochondrial disfunction, spatial transcriptomics, and epigenetics

International Partnerships:

- Albert Einstein College of Medicine: \$20 million grant for research focused on senescence and aging, led by Dr. Ana Maria Cuervo of the National Academy of Sciences
- Buck Institute: \$21 million for a novel multi-year partnership to accelerate discoveries toward therapeutic interventions specifically targeting aging
- Impetus Grants: \$7 million in matching funds to date supporting 14 innovative academic healthspan science research projects, from causality of methylation clocks to in-situ genome-scale measurements of aging mechanisms
- Indiana University School of Public Health-Bloomington: \$2 million for an endowed chair to advance the study of healthy aging on a global scale
- Northwestern University: \$32.4 million partnership to support research focused on defining a healthy proteostatis and maintaining proteostasis in a robust, resilient state
- Hevolution, XPRIZE Healthspan partnership: \$40 million as the leading and largest single funder to fund a 7-year global competition that requires teams to test and verify therapeutics that can restore a decade of muscle, immune, and cognitive functioning of people aged 65 to 80 in one year or less

Impact Investment Highlights

- Aeovian Pharmaceuticals: fund the Company's entry into the clinic with its selective mTOR1 inhibitor. mTOR is one of the most "validated" targets for potentially improving healthy aging, & the availability of a safer, selective agent, could open up healthspan indications for this drug class
- **Rubedo Life:** targeting cellular senescence, one of the hallmarks of aging. The company's machine learning-enabled platform may enable it to identify and characterize different types of senescent cells currently a major bottleneck in the aging field
- Vandria SA: completing a series A financing round with investors Dolby Family Ventures and ND Capital to fund the Company's entry into the clinic with their proprietary mitophagy inducers. Impaired mitophagy is one of the classic "hallmarks of aging," and the Company has molecules that may improve cognitive ability in older patients as well as a molecule that could improve muscle function in the elderly via this pathway
- Breakthrough Innovation Alliance: bringing leading entrepreneurs, investors, and industry partners together to provide mentorship/capital to high-potential companies working on breakthroughs in healthspan
- Tune Therapeutics: funded to accelerate the development of the company's existing pipeline, currently anchored by Tune-401 – its clinical-stage epigenetic silencing drug for chronic Hepatitis B. It will also support the development of additional advanced therapy programs already underway at Tune, and to progress its broader mission of bringing the power and versatility of epigenetic modulation therapies to bear on common, chronic diseases, and enable a new era of regenerative medicine

10 Things You Probably Didn't Know About Healthspan & Aging

01 Healthspan is about quality of life, not just length of life

Lifespan is how long you live. Healthspan is how long you live in good health, free from major diseases or disabilities.

02 We will lose a decade of our lives to poor health

No matter where you live in the world, and no matter how long you live, on average people can expect to spend the last 10 years of life in poor health.¹

WHO Region	Years in Lifespan	Years in Healthspan	Years in Poor Health
Global	73.4	63.7	9.7
Saudi Arabia	74.3	64.0	10.3
Eastern Mediterranean	69.7	60.4	9.3
South-East Asia	71.4	61.5	9.9
Western Pacific	77.7	68.6	9.1
Europe	78.2	68.3	9.9
Americas	77.2	66.2	11
Africa	64.5	56.0	8.5

03 Life expectancy is increasing, but healthspan is declining

Between 2000 and 2019, life expectancy for people over age 60 increased by 2.3 years, while healthspan decreased by 6 months. Aging is the single most important risk factor for many devastating diseases and conditions, including Alzheimer's disease and related dementias, most cancers, many types of heart disease, osteoporosis and hip fracture, kidney failure, and diabetes

04 Our world is aging rapidly

We have 1 billion people over 60 in the world today; this will double to 2 billion by 2050². One in five people will be over 60 by 2050. All regions are getting older. Today, Japan is one of the oldest countries with a median age of 48 years; this is expected to rise to 54 by 2050. China, Cuba, Italy, Spain, and South Korea are among the countries expected to hit a median age over 50 by 2050. Even relatively young countries are aging rapidly. In 1990, the median age in Saudi Arabia was 18 years; today it is around 30 years and by 2050 it is estimated to be almost 40 years.

^{1.} Data collected from GHE: Life expectancy and healthy life expectancy, The Global Health Observatory, World Health Organization. https://www.who.int/health-topics/ageing#tab=tab_1

^{2.} Ageing, World Health Organization. https://www.who.int/health-topics/ageing#tab=tab_1

05 Total global population will likely go down, but the proportion over 60 will go up

According to WHO projections, there is a 50% chance our total population will start to decline by 2100.³ This will mean our world will get smaller while it continues to get older. We must plan for healthy people as well as a healthy planet.

06 Aging is an economic and social time bomb for the 21st century

Declining birth rates and rising life expectancy are flipping the world's population pyramid upside down. Today, every 100 people in the working-age population (20-64) support approximately 33 people over age 65. By 2075, this ratio will almost double, with every 100 workers needing to support almost 60 people over age 65.⁴

07 Boosting healthspan is a trillion-dollar investment opportunity

Expenditure on older populations is an investment, not a cost. Expanding healthy living by 12 months could generate trillions per year in healthcare cost savings and productivity increases.⁵ Improving the health and well-being of older people will also lead to increased participation, consumption, and social cohesion that benefits all of society.

08 Despite its potential, healthspan research is significantly underfunded

Countries spend trillions treating the symptoms of aging, but barely invest in understanding its root causes. For example, the U.S. National Institutes of Health spends less than 1% of its \$45 billion research budget on understanding the underlying biology of aging (approximately \$337 million).⁶ Yet the U.S. Centers for Disease Control and Prevention estimates the country loses \$305 billion treating Alzheimer's disease, \$237 billion to diabetes, \$216 billion to heart disease and stroke, and \$140 billion to arthritis, excluding the significant economic and lost productivity costs.

09 The world is waking up to healthspan

The importance of improving healthspan is rising on the global agenda. The UN General Assembly declared 2021–2030 the UN Decade of Healthy Aging, calling for concerted, catalytic, and collaborative action across sectors to foster longer, healthier lives. The United Kingdom and Singapore have set goals to increase healthspan by 5 years,^{7,8} and preventing chronic and age-related diseases is a key pillar of Vision 2030 in Saudi Arabia.⁹. South Korea announced in 2024 it will establish a Population Ministry to target low birth rates and its rapidly aging population.

10 Healthspan science is no longer science fiction

Aging is treatable. Incredible advances in scientific understanding of aging biology and extensive research on promising compounds such as metformin, rapamycin, and taurine show delaying the onset of age-related diseases is possible.^{10,11,12}

9. Health Sector Transformation Program. Vision 2030. <u>https://www.vision2030.aov.sa/media/0wap2tds/hstp_ena.pd</u>

www.fghts2025.com

^{3.} World Population Prospects 2022: Summary of Results. United Nations.

https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdj

Old-age dependency ratio. OECD_<u>https://data.oecd.org/pcp/old-age-dependency-ratio.htm</u>
 The economic value of targeting aging. Nature Aging. <u>https://www.nature.com/articles/s43587-021-00080-0</u>

Congressional Justification FY 2023, National Institute on Aging. <u>https://www.nip.nih.gov/sites/default.files/2022-03/nip-congressional/ustification-2023.pdf</u>

Congressional suscipleation (1) 2020, National institute on Aging. <u>https://www.nb.nin.gov/s</u>
 Understanding the drivers of healthy life expectancy: report. Government of <u>UK Report</u>

^{8.} Media release National University Health System Singapore<u>PRNewswires</u>

^{10.} Metform in as a Tool to Target Aging. National Library of Medicine, <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5943638/</u>

Saudi Leading with Influence

Hevolution is a Saudi-led global non-profit organization advancing the frontiers of aging science.

- **Saudi Pioneership:** Established by Royal Order in 2018, Hevolution embodies Saudi Arabia's commitment to being at the forefront of scientific innovation and global healthspan research.
- Global Presence: Headquartered in Riyadh with a hub in Boston, and with plans for expansion in Europe and Asia, Hevolution connects Saudi talent and expertise with leading global centers of research and technological innovation.

Hevolution aligns with Saudi Vision 2030 to create a healthier, more sustainable future for its citizens – and the world.

- Health as a National Priority: By investing in groundbreaking aging and healthspan research, Hevolution supports Vision 2030's goals of enhancing the quality of life and promoting a world-class healthcare sector in Saudi Arabia.
- Economic Diversification: Hevolution exemplifies Saudi Arabia's drive to establish itself as a leader in emerging industries, diversifying its economy beyond traditional sectors like oil and gas.
- National Talent: By providing grants and funds to Saudi researchers, and collaboration with international experts, Hevolution is empowering Saudi professionals to become leaders in the fields of health and biotechnology.

Hevolution showcases Saudi Arabia's leadership in advancing global research and fostering technological progress.

- Saudi Arabia's National Biotechnology Strategy: As part of the broader Vision 2030 initiative, Hevolution's work further accelerates the Kingdom's position as a global leader in biotechnology and strengthens its role in shaping the future of the industry.
- Catalyst for Change: By addressing the science of aging, Hevolution demonstrates Saudi Arabia's ability to take on some of the most pressing global health challenges, redefining its role in the global innovation landscape.

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Gallery



GHS Arena

Market Place





HealthSpan Hub

HF spokespeople (1/6)



DR. MEHMOOD KHAN

Chief Executive Officer

Dr. Mehmood Khan's distinguished career has included several senior corporate roles, including Vice Chairman and Chief Scientific Officer of Global Research and Development at PepsiCo, and President of Global R&D at Takeda Pharmaceuticals.

Before moving into the private sector Dr. Khan was a faculty member in endocrinology at the Mayo Clinic and Medical School, where he served as Director of the Diabetes, Endocrine and Nutritional Trials Unit. He also led programs in diabetes, endocrinology, metabolism, and nutrition in Minneapolis.

Dr. Khan is a member of the Board of Directors of Reckitt Benckiser and of the Saudi Research, Development, and Innovation Authority (RDIA), a member of the Saudi National Biotechnology Strategy Steering Committee, and Steering Committee, past Chairman of the Visiting Committee on Advanced Technology of the United States' National Institute of Standards and Technology (NIST), and past Executive Chairman of Life Biosciences.

Dr. Khan earned his medical degree from the University of Liverpool School of Medicine, England, and completed a fellowship in clinical endocrinology and nutrition in the Department of Medicine and Food Science and Nutrition at the University of Minnesota, Minneapolis. He is a Fellow of the Royal College of Physicians in London, a Fellow of the American College of Endocrinology, and an Elected Fellow in the Department of Pharmacology at University of Oxford.

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HF spokespeople (2/6)



HRH PRINCESS DR. HAYA BINT KHALED BIN BANDAR AL SAUD

Senior Vice President of Research

HRH Princess Dr. Al Saud's distinguished career includes roles at the King Abdulaziz City for Science & Technology (KACST), both as Director of the Saudi National Center for Genomics Technology, and as Director of the Saudi National Pre-Marital Screening Program.

She also served as a scientist at the King Faisal Specialized Hospital and Research Center, where she carried out a range of research projects focusing on population genetics.

HRH Princess Dr. Al Saud has served as a member of the National Biotech Strategy Advisory Committee at the Strategic Management Office, and as a member of the National Nutrition Committee at the Saudi Food & Drug Authority, as well as being a past and present member of a number of other notable national and international committees. These include serving as a member of the Project Oversight Executive team for the Saudi Genome Project 2.0 at KACST; the S20 Future of Health Taskforce at the G20 Summit; and a committee member for the Princess Noura Award for Women's Excellence.

HRH Princess Dr. Al Saud holds a PhD in Genomics of Common Diseases from Imperial College London and a Master's degree in Genetics and Toxicology from McGill University, as well as a Bachelor's degree in Clinical Nutrition from King Saud University, Riyadh.

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HF spokespeople (3/6)



DR. KHALDOUN AL ROMAIH Science Executive Director

Dr. Khaldoun Alromaih serves as the Science Executive Director at Hevolution Foundation and has been an integral part of its the scientific team since 2021. In his role, Dr. Alromaih has spearheaded groundbreaking science programs, innovative research initiatives, and the development of future leaders in the field of geroscience.

Prior to joining Hevolution, he worked as a Research Scientist at King Faisal Specialist Hospital and Research Centre, where he led major projects focused on kidney function, decline, and failure. Additionally, he supported researchers and nurtured scientific talent in various positions, including as a Lecturer at the College of Medicine at Alfaisal University in Riyadh, a member of the Scientific Committee at Mawhiba, and a committee member on the Saudi National Committee of Bioethics.

Dr. Alromaih earned his Bachelor of Science from King Saud University in Riyadh and completed his master's and doctoral degrees in Pathology and Laboratory Medicine at the University of Toronto. He also undertook a five-year postdoctoral fellowship at Harvard Medical School in Cambridge, Massachusetts, specializing in chronic kidney diseases.

Dr. Alromaih mentors trainees across multiple fields, including genetics, biology, and research methodology. He has also delivered lectures on precision medicine, biomarker discovery, multi-omics technologies, and nephrology.

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HF spokespeople (4/6)



DR. WILLIAM GREENE

Chief Investment Officer

Dr. William Greene's leadership positions have biotechnology executive, founder, included investor, and clinician. As CEO, he built Iconic Therapeutics through discovery, clinical development and venture financing, leading to a successful sale of the company. He later helmed biotech longevity company Fountain Therapeutics and co-founded digital therapeutics startup Pear Therapeutics.

Dr. Greene spent 12 years at MPM Capital where he was a Managing Director and member of its Investment Committee, responsible for biotechnology and medical technology investments worldwide. He was also founding Chairman and head of the Investment Committee at the Global Health Investment Fund, a groundbreaking impact-oriented venture fund in collaboration with the Gates Foundation, which successfully scaled both investment returns and health impact simultaneously.

Earlier in his career, Dr. Greene was an Assistant Professor of Medicine at University of California at San Francisco (UCSF) and led clinical trials and strategy for a variety of therapeutic areas at Genentech.

Dr. Greene earned his BA from Wesleyan University and his MD from UCSF. He was a Robert Wood Johnson Clinical Scholar at Yale and a Howard Hughes Medical Institute Research Scholar at the US National Institutes of Health (NIH).

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HF spokespeople (5/6)



DR. SOPHIA PATHAI Vice President of Medical

Sophia Pathai, MD, PhD, MSc is a physician with over 20 years of clinical and professional experience, including as an ophthalmologist in the UK's National Health Service (NHS), as a clinician scientist and faculty member at the London School of Hygiene & Tropical Medicine (LSHTM), and as a Staff Ophthalmologist on the Orbis Flying Eye Hospital.

She later transitioned to the corporate sector, serving in global leadership roles in clinical development and medical affairs at Roche, AbbVie, and Johnson & Johnson.

Dr. Pathai holds an MBBS (medical degree) and BSc in Tumor Biology from University College London Medical School, and a Masters in Epidemiology and PhD from LSHTM. Her PhD, which was funded by a Wellcome Trust Clinical Fellowship, investigated clinical aspects of accelerated biological aging. She is a Member of the Royal College of Ophthalmologists (London), a Member of the Faculty of Pharmaceutical Physicians, and a Fellow of the Royal Society of Medicine. She was a mentor for the Johnson & Johnson WiSTEM2D Scholars Award Program and is a board member of Orbis UK.

HF spokespeople (6/6)



Michael Torres

Chief Marketing & Communications Officer

Mr. Torres is a trusted global senior executive specializing in strategic corporate and public affairs communications, spanning Fortune 500 companies and a premier international PR firm. His expertise encompasses crisis communications, corporate reputation, change management, media strategic brand/employee relations/messaging, communications, event management, and social media strategies.

At PepsiCo, Mr. Torres established R&D corporate communications, shaping the global business narrative to restore employee, investor, and analyst confidence in R&D investments. As IHG's Corporate Affairs VP, Mr. Torres formulated the North American communication frameworks that helped bolster IHG's global standing and 16 hotel brands, including overseeing the company's \$20M Leaders and Investors Conference. At Anheuser-Busch, he innovated Marketing Communications to lead competitors in share of voice and brand equity, introducing an industry-first lifestyle PR practice and social media hub. At Fleishman Hillard, Mr. Torres managed communications for a significant Superfund clean-up, restoring 26 St. Louis sites to public use.

M. Torres holds a B.S. in Sociology from UCLA.



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Let's connect

Contact us:

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Be part of the conversation



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Architecting The Future