



Global Innovator S U M M I T



NATIONAL ACADEMY OF MEDICINE

September 26: Welcome Remarks



Victor J. Dzau

Victor J. Dzau is the President of the US National Academy of Medicine (NAM). In addition, he serves as Vice Chair of the US National Research Council. He is Chancellor Emeritus and James B. Duke Professor of Medicine at Duke University and the past President and CEO of the Duke University Health System. Previously, Dr. Dzau was the Hersey Professor of Medicine and Chairman of Medicine at Harvard Medical School's Brigham and Women's Hospital, as well as Bloomfield Professor and Chairman of Medicine at Stanford University. He is an internationally acclaimed leader and scientist has made a significant impact through his seminal research in cardiovascular medicine and genetics. His important work on the renin angiotensin system paved the way for the contemporary understanding of cardiovascular disease. He pioneered gene therapy for vascular disease and was the first to introduce DNA decoy molecules to block transcription as gene therapy in humans. His pioneering research in cardiovascular regeneration led to the Paracrine Hypothesis of stem cell action and the therapeutic strategy of direct cardiac reprogramming. At the National Academies, Dr Dzau has designed and led important initiatives such as the Commission on a Global Health Risk Framework for the Future; the Human Genome Editing Initiative; the Vital Directions for Health and Health Care, and the Action Collaborative on Countering the U.S. Opioid Epidemic. The NAM Global Grand Challenge for Healthy Longevity represents his vision to inspire across disciplines and sectors to coalesce around a shared priority and audacious goal to advance health.

BREAKOUT SESSION 1 - INNOVATORS CONNECT

Room 1: Applications of artificial intelligence



David Aubert

Catalyst Sponsor: EIT Health of the European Union (2022)

Project title: Using Phototherapy to Promote Well-being in Older Individuals



Ignasi Belda

Catalyst Sponsor: EIT Health of the European Union (2020)

Project title: Industrialization and Preclinical Validation of a Medical Device for Microwave-Assisted Endoscopy



Wei-Ning LEE

Catalyst Sponsor: Research Grants Council of the Hong Kong Special Administrative Region, China (2022)

Project Title: Intelligent ultrasonic assessment of muscle quality for a functionally healthy elderly life



Rebecca Tarbert

Catalyst Sponsor: National Academy of Medicine (2021)

Project title: Human Activity Recognition to Avoid Fall Related Injuries in the Older Adult Population

BREAKOUT SESSION 1 - INNOVATORS CONNECT

Room 2: Biological processes of aging & related interventions



Au Yeung Shiu Lun Ryan

Competition Sponsor: The Chinese University of Hong Kong and The University of Hong Kong (2021)

Project Title: Exploring the potential of metformin in population longevity.



Billy Chow

Competition Sponsor: Research Grants Council of the Hong Kong Special Administrative Region, China (2022)

Project title: Development of Small-Molecule Modulators of the Secretin Receptor as Novel Anti-Hypertensive Agents



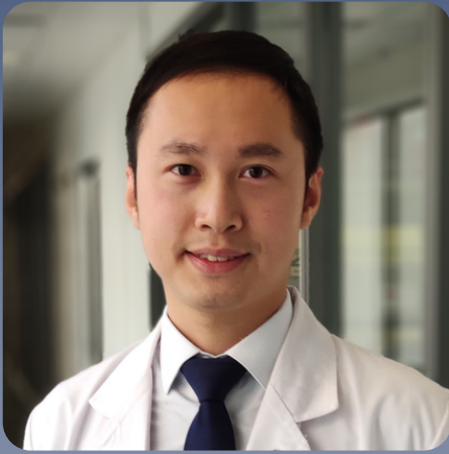
Lauren Gerard Koch

Competition Sponsor: US National Academy of Medicine (2022)

Project title: Exercise and Brain Health: Pre-clinical Study of the Energy Transfer Hypothesis of Aging using PET/MRI imaging

BREAKOUT SESSION 1 - INNOVATORS CONNECT

Room 3: Neurodegenerative diseases & related interventions



Billy Wai-Lung NG

Competition Sponsor: Research Grants Council of the Hong Kong Special Administrative Region, China (2022)

Project title: Bilobalide Derivatives as Therapeutics Against Ageing-Related Neurodegenerative Diseases



Tina Smith

Competition Sponsor: United Kingdom Research and Innovation (2022)

Project title: Monitoring symptoms of Parkinson's disease to improve quality of life



Fang Zheng

Competition Sponsor: Chinese Academy of Medical Sciences (2021)

Project title: Nanobodies in the Diagnosis and Treatment of Central Degenerative Diseases

BREAKOUT SESSION 1 - INNOVATORS CONNECT

Room 4: Behavioral interventions, public health, and community engagement



Catherine Clair

Catalyst Sponsor: National Academy of Medicine (2022)

Project title: The Social-Medical Network: Using a Network Approach to Explore the Integration of Informal and Formal Care Networks of Older Adults



Marion Hersh

Catalyst Sponsor: UK Research and Innovation

Project title: Improving Quality of Life for Older Autistic People



Giancarlo La Pietra

Catalyst Sponsor: EIT Health (2022)

Project title: myLAB: towards a novel method to manage Chronic Kidney Disease (CKD)



Timo Uustal

Catalyst Sponsor: EIT Health (2021)

Project title: Growing coverage of Medical Assistance by Nursebeam bots

September 26:

PANEL: How to Secure Project Funding



Moderator: Ian Johnston

Ian is a Senior Associate at The Engine, an VC firm focused on Tough Tech spun out of MIT; he has spent the past 2 years at The Engine identifying Tough Tech breakthroughs for potential investments and building out programs aimed at supporting current and future founders. He has a background in biomedical engineering and life sciences consulting. Coming from his prior position at Putnam Associates, Ian brings experience in addressing key business and therapeutic development questions for biopharmaceutical and health-care clients. He also holds a PhD in Pharmacology from UPenn where his research focused on the microfluidic modeling of the cardiovascular system to understand various hematologic pathologies and investigate novel therapeutics. Additionally, during this time, Ian worked at the Penn Center of Innovation assessing technologies from the UPenn community for their patent-ability and market potential; these technologies span realms such as diagnostics, digital health, medical devices, research tools, and novel therapeutic platforms. Ian also functioned as the vice president of consulting for the UPenn-Wharton health-care consulting club. Ian received his BS in biomedical engineering from Rutgers University where he served on the engineering class government.



James Hueston

James Hueston is an investor at Primetime Partners where he focuses on technology companies that better the lives of older adults and those that care for them. He was previously an investor at NTTVC, the single LP fund formed in partnership with NTT, and before that, he was also previously on the CEO's advisory board at Cinemark Movie Theaters where he focused on implementing programs to further engage audiences of all ages. He received his undergraduate degree in Economics with minors in Mathematics and Physics from Vassar College while also playing DIII varsity lacrosse. Lastly, his expertise lies in how to pitch investors, network, secure funding, and how to maximize that funding for business acceleration once it's acquired.

September 26:

PANEL: How to Secure Project Funding



Mehmood Khan

Mehmood Khan, MD, is Chief Executive Officer of Hevolution Foundation, a first-of-its-kind non-profit organization that will target grants and early-stage investments to incentivize healthspan science across disciplines and borders for the benefit of all. Prior to joining Hevolution, Dr. Khan served as Chief Executive Officer and Board Member of Life Biosciences Inc., which focuses on advancing scientific research and developing innovative new therapies to improve and extend healthy lives for everyone. In his role as CEO, Dr. Khan provided strategic direction and operational oversight across Life Biosciences and its six daughter companies, pursuing his vision of a more efficient and effective drug development pathway that will drive innovation in the science and technology Life Biosciences advances.

Before his role at Life Biosciences, Dr. Khan previously served as Vice Chairman and Chief Scientific Officer of Global Research and Development at PepsiCo, a Fortune 50 company employing upwards of 250,000 employees across 22 brands. At PepsiCo, Dr. Khan played a pivotal role in the company's global R&D efforts to create breakthrough innovations in food, beverages, and nutrition, including the incorporation of healthier and more nutritious offerings across its portfolio. Dr. Khan also oversaw PepsiCo's global sustainability initiatives based on the belief that success in business is inextricably linked to the sustainability of the world we share.

September 26:

PANEL: How to Secure Project Funding



Magda Krakowiak



Heng Li Lang

Ms Heng joined Temasek Foundation as Senior Director in 2017, spearheading strategies to champion game-changing sustainability and health innovations to create a significant positive impact on society and the planet.

Prior to joining Temasek Foundation, she had more than 20 years of experience in the public sector. She held various senior appointments with the National Council of Social Service, the Singapore Tourism Board and the Media Development Authority of Singapore. In 2006, she was awarded the National Day Award (Commendation Medal) to recognise her contributions to the Singapore civil service. Ms Heng graduated from the National University of Singapore with an Honours Degree in Statistics.

September 26: PANEL: How to Secure Project Funding



Jie Wang

Keynote Address: Artificial Intelligence



Peter Lee

Dr. Peter Lee is Corporate Vice President of Research and Incubations at Microsoft. He leads Microsoft Research and incubates new research-powered products and lines of business in areas such as artificial intelligence, computing foundations, health, and life sciences. He speaks and writes widely on science and technology trends. Before joining Microsoft in 2010, he was at DARPA, where he established a new technology office that created operational capabilities in machine learning, data science, and computational social science. Prior to that, he was a professor and the head of the computer science department at Carnegie Mellon University. Dr. Lee is a member of the National Academy of Medicine and serves on the Boards of Directors of several institutes for the Allen Institute for Artificial Intelligence, the Brotman Baty Institute for Precision Medicine, and the Kaiser Permanente Bernard J. Tyson School of Medicine. He served on President Obama's Commission on Enhancing National Cybersecurity and led studies for PCAST and the National Academies. He has testified before both the US House Science and Technology Committee and the US Senate Commerce Committee. With Carey Goldberg and Dr. Isaac Kohane, he is the coauthor of the book, "The AI Revolution in Medicine: GPT-4 and Beyond."

PANEL: Applications of AI: Catalyst Projects of Note



Matt Flynn

Catalyst Sponsor: UK Research and Innovation (2022)

Project: A Career Pipeline for 50+ Service Leavers



Ram Gouripeddi

Catalyst Sponsor: National Academy of Medicine (2021)

Project: The Aging Exposome: Characterizing Bidirectional Effects of Exposures and Aging



Bianca Migliori

Catalyst Sponsor: National Academy of Medicine (2021)

Project: Automated Cell Profiling Platform for Anti-Aging Drug



Marco Vismara

Catalyst Sponsor: EIT Health of the European Union (2022)

Project: myLAB: towards a novel method to manage Chronic Kidney Disease (CKD)

U.S. NATIONAL
ACADEMY OF MEDICINE

**Healthy
Longevity**

GLOBAL GRAND CHALLENGE



**Global
Innovator**
S U M M I T

SPOTLIGHT SESSIONS

2023 Healthy Longevity Global Innovator Summit

The NAM has added Spotlight Sessions to this year's Innovator Summit agenda in response to awardees' requests to hear from fellow awardees who have been successful in securing additional support after their Catalyst Award. These are brief, 15-minute sessions scheduled throughout the two-day Summit. Each session will consist of a quick presentation followed by a Q&A where fellow awardees and other viewers can submit specific questions.

SPOTLIGHT SESSIONS

Tues, Sept 26, 2023

SESSION #1 9:40AM - 9:55 AM EDT



Olesja Bondarenko

Catalyst Sponsor: EIT Health (2022)

Project: Curing infected wounds effectively with the most advanced antibacterial wound dressing

Olesja Bondarenko received PhD degree in gene technology from Tallinn University of Technology (Estonia), practiced at the University of Konstanz (Germany) and was a postdoctoral researcher at Karolinska Institutet (Sweden) and the University of Helsinki (Finland). Dr. Bondarenko is one of the pioneers in the nanoparticle research field with more than 30 peer-reviewed articles, highly cited publications, and numerous highly competitive EU grants and awards.

Since 2019, she is a co-founder and CEO of Nanordica Medical developing advanced nanoparticle-based antibacterial solutions with a focus on wound care.

SPOTLIGHT SESSIONS

Tues, Sept 26, 2023

SESSION #2 11:45AM - 12:00 PM EDT



Chenxi Ouyang

Catalyst Sponsor: Chinese Academy of Medical Sciences
(2022)

Project: Synthesis and assessments of thermoplastic polyurethane elastomer--the basic material applied in cardiovascular prosthesis for the aged

SPOTLIGHT SESSIONS

Tues, Sept 26, 2023

SESSION #3 12:05PM - 12:20 PM EDT



Chun-Lin Kuo

Catalyst Sponsor: Academia Sinica of Taiwan (2022)

Project: Combination of Ear-EEG and Masking in Earphone for tinnitus improvement

An enthusiastic neurologist-in-training with great interest in neuroscience and engineering who dedicates to figure out the solutions of unmet needs in clinical aspect with engineering approach.

SPOTLIGHT SESSIONS

Wed, Sept 27, 2023

SESSION #4 10:55AM - 11:10 AM EDT



Jean Garrec

Catalyst Sponsor: EIT Health (2020)

Project: Bioadhesive Ophthalmics

Dr. Jean GARREC, Pharm.D, MBA is a trained pharmacist with over 15 years experience in ophthalmology business development – Solid understanding of the global market, including the prospective of providers, researchers and pharmas. He has general manager and operational experience building and running medical & pharma companies in ophthalmology.

SPOTLIGHT SESSIONS

Wed, Sept 27, 2023

SESSION #5 11:15AM - 11:30 AM EDT



George Sutphin

Catalyst Sponsor: National Academy of Medicine (2020)

Project: A platform for identifying synergistic longevity interventions

September 27:

BREAKOUT SESSION 2 - ROLE MODELS & MENTORS IN SECURING FUNDING



Angelique Chan



Hayley Collen

Based in London, Hayley has worked with three cohorts of academics awarded UKRI Healthy Ageing Catalyst Awards (the UK's participation in the NAM Healthy Longevity Global Competition) in collaboration with Zinc VC. In this role, Hayley supports the group towards commercialisation and, in particular, thinking about follow-on funding. When not working with Catalyst award holders, Hayley is a Board Member of the Imperial Venture Mentoring Service, at Imperial College London (modelled on the MIT Venture Mentoring Service). She also supports a number of other university based entrepreneurship programmes and is a Non Executive Director of Grosvenor Hart Homes, a new, start-up social housing provider in the UK.

Previously Hayley had a career in private equity and spent six years working as a corporate finance advisor specialising in capital raising for companies that make a positive social and/ or environmental impact. Between 2012 - 2021, Hayley was a member of the Awards Committee at UnLtd – the Foundation for Social Entrepreneurs, making grants from a £100m endowment.

September 27:

BREAKOUT SESSION 2 - ROLE MODELS & MENTORS IN SECURING FUNDING



James Hueston

James Hueston is an investor at Primetime Partners where he focuses on technology companies that better the lives of older adults and those that care for them. He was previously an investor at NTTVC, the single LP fund formed in partnership with NTT, and before that, he was also previously on the CEO's advisory board at Cinemark Movie Theaters where he focused on implementing programs to further engage audiences of all ages. He received his undergraduate degree in Economics with minors in Mathematics and Physics from Vassar College while also playing DIII varsity lacrosse. Lastly, his expertise lies in how to pitch investors, network, secure funding, and how to maximize that funding for business acceleration once it's acquired.



Leon Sandler

Leon Sandler is the Executive Director of the MIT Deshpande Center for Technological Innovation. He has led the Center since 2006, guiding MIT's researchers to commercialize their technologies. During this period, the Center has funded over 180 projects with \$23 million of grants, and spun out more than 50 companies. He is a frequent speaker on the process of commercializing university research, and how to move research to the point where it can spin out. His expertise is in both business and technology.

Prior to joining MIT, Mr. Sandler was the CEO of several startups and provided guidance to many others. He held senior management positions at companies such as Eastman Kodak, Texas Instruments and Digital Equipment.

September 27:

BREAKOUT SESSION 2 - ROLE MODELS & MENTORS IN SECURING FUNDING



Mehmood Khan

Mehmood Khan, MD, is Chief Executive Officer of Hevolution Foundation, a first-of-its-kind non-profit organization that will target grants and early-stage investments to incentivize healthspan science across disciplines and borders for the benefit of all. Prior to joining Hevolution, Dr. Khan served as Chief Executive Officer and Board Member of Life Biosciences Inc., which focuses on advancing scientific research and developing innovative new therapies to improve and extend healthy lives for everyone. In his role as CEO, Dr. Khan provided strategic direction and operational oversight across Life Biosciences and its six daughter companies, pursuing his vision of a more efficient and effective drug development pathway that will drive innovation in the science and technology Life Biosciences advances.

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September 27:

PANEL: Striving for Healthy Longevity Equity: Catalyst Projects of Note



Moderator: Jessica Ramella-Roman

Jessica C. Ramella-Roman received an Electrical Engineering degree (Laurea) from the University of Pavia, Italy in 1993 and worked for five years in the semiconductor industry. She returned to academia in 1999 to pursue a Ph.D. degree in bio-optics and she received a master's and Ph.D. degree in Electrical Engineering from Oregon Health Science University in Portland, Oregon in 2004. She was a Post-Doctoral Fellow at the Applied Physics Laboratory of the Johns Hopkins University from 2004 to 2005. She was then an Assistant Professor at The Catholic University of America from 2005 to 2012 and an Associate Professor from 2011 to 2013. In 2013 she joined FIU, where she is an Associate Professor in the Department of Biomedical Engineering and an Associate research professor at the Herbert Wertheim School of Medicine at FIU.

Her research focuses on the development of novel imaging systems based on spectroscopy and polarization, including multimodal nonlinear microscopes. She is the co-PI of the NSF grant Precise Advanced Technologies and Health Systems for Underserved Populations (PATHS-UP) whose vision is to inform and enhance the underserved communities' health by developing novel wearable and point-of-care systems. Furthermore, PATHS-UP members aim to cultivate a diverse and inclusive STEM community.

September 27:

PANEL: Striving for Healthy Longevity Equity: Catalyst Projects of Note



Zhi Dong Zhou

Catalyst Sponsor: Ministry of Health and National Research Foundation of Singapore (2022)

Project: Screening for therapeutic targets of NOTCH2NLC gene non-coding CGG repeat expansions associated neurodegeneration



Corey Nichols-Hadeed

Catalyst Sponsor: National Academy of Medicine (2022)

Project: Intergenerational Mentoring to Promote Health Across the Lifespan



Antonio d'angelo

Catalyst Sponsor: EIT Health of the European Union (2022)

Project: Sustainable incisional negative pressure wound therapy device

September 27:

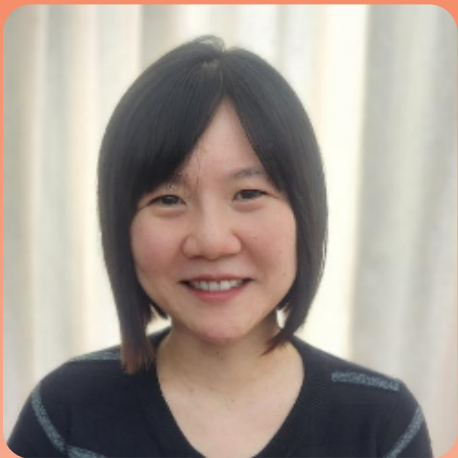
PANEL: Striving for Healthy Longevity Equity: Catalyst Projects of Note



Paulin Straughan

Catalyst Sponsor: Ministry of Health and National Research Foundation of Singapore (2021)

Project: Community Based and Participant-led Initiatives to Increase Civic Engagement Among Older Adults



Lim Wensi

Catalyst Sponsor: Ministry of Health and National Research Foundation of Singapore (2021)

Project: Community Based and Participant-led Initiatives to Increase Civic Engagement Among Older Adults

September 27:

Innovating to Achieve Healthy Longevity: Perspectives from the NAM Global Roadmap & UN Decade of Healthy Ageing



Moderator: John Beard

John Beard, MBBS PhD, is Irene Diamond Professor and Director of the International Longevity Center- USA at Columbia University, New York. He was previously Director of Ageing and Life Course with WHO in Geneva and was a commissioner with the US National Academy of Medicine Commission on Healthy Longevity.



Alana Officer

Alana started her career as a clinician in Australia and England before holding a number of technical and managerial positions working on disability, health and development in West and Central Africa, Europe, South Asia, the Middle East and the Western Pacific. Alana joined WHO in 2006 and was the Coordinator for the Disability and Rehabilitation Team (DAR) until 2014 where she led the development of such landmark resources as the WHO Global disability action plan 2014–2021: Better health for all people with disability (2014), The International Perspectives on Spinal Cord Injury (2013), the World report on disability (2011) and the Guidelines on community-based rehabilitation (2010) amongst many others. Alana joined the Department of Ageing and Life Course in July 2014 to lead the development of the World report on ageing and health, which was published in October 2015 and to support the development of the Global strategy and action plan on ageing and health. She was also responsible for the Organization's work on age-friendly environments including the Global Network for Age-friendly Cities and Communities and the development of a Global Campaign to Combat Ageism. In January 2020, Alana became the head of a new unit in WHO on Demographic Change and Healthy Ageing (DHA). In this role she coordinates the Secretariat for the United Nations Decade of Healthy Ageing—a global collaboration to improve the lives of older people, their families and communities—as well as the related knowledge Platform on ageing. Alana continues to oversee the Organization's work on age-friendly physical and social environments, including the Global Network for Age-friendly Cities and Communities and the Global Campaign to Combat Ageism.

September 27:

Innovating to Achieve Healthy Longevity: Perspectives from the NAM Global Roadmap & UN Decade of Healthy Ageing



John (U-Li) Wong

JOHN EU-LI WONG is the Isabel Chan Professor in Medical Sciences and Executive Director, Center for Population Health at the National University of Singapore (NUS) and Senior Advisor, National University Health System, (NUHS) Singapore. A medical oncologist-hematologist, he currently co-chairs a multisectoral initiative in a location based, real-world township, to co-develop programs which increase healthy longevity, enable purposeful longevity, promote intergenerational bonding and enable ageing-in-place. He has previously served as Senior Vice President (Health Innovation and Translation), NUS; Chief Executive, NUHS; Director of the National University Cancer Institute, Singapore; Dean, Yong Loo Lin School of Medicine, NUS, where he was involved in the development of biomedical sciences as a key pillar of Singapore's economy and in the development of academic medicine in Singapore. He has also served as Chairman, Board of Directors, Health Sciences Authority, Singapore and served on the Singapore Medical Council. He represents Singapore in the M8 Alliance of Academic Health Centers and the Association of Academic Health Centers International, and is on the editorial board of the Journal of the American Medical Association. He was a member of the World Economic Forum Global Agenda Council on Personalized and Precision Medicine, the Nature Index Panel of Senior Medical Advisors, and the international editorial board of the American Journal of Medicine. He cofounded the Cancer Therapeutics Research Group, a multinational consortium of nine academic institutions, and has served as a member of the International Education Council for Molecular Targeted Therapy for Cancer, the American Society of Clinical Oncology International Affairs Committee, and the International Oncology Foundation Advisory Board. He was elected as a member of the Academia Europaea in 2022 and an international member of the U.S. National Academy of Medicine in 2019, where he co-chaired an international commission which published a consensus report on a Global Roadmap for Healthy Longevity in 2022. He has received the degree of Doctor Philosophiae Honoris Causa from the Hebrew University of Jerusalem in 2019, the Public Administration Medal (Gold) in 2016, and Singapore's President's Science & Technology Medal in 2014, among other awards. He is a fellow of the Academy of Medicine Singapore, the Royal College of Physicians in Edinburgh and London, and the American College of Physicians.

September 27:

Innovating to Achieve Healthy Longevity: Perspectives from the NAM Global Roadmap & UN Decade of Healthy Ageing



Kazuki Yamada

Kazuki Yamada is the project manager for the UN Decade of Healthy Ageing Platform, the digital home for the Decade. The Decade Platform is designed to bring diverse stakeholders and knowledge together towards fostering silo-breaking connections and enabling innovative ways of 'doing business' for healthy ageing. As part of this work, Kazuki also manages a range of channels and tools integrated with the Decade Platform, including digital communications and the new Decade Partnering Kit – a free set of resources any stakeholder can use to make their contributions to the Decade more visible.

Kazuki has supported WHO's work on healthy ageing and the Decade since 2017. He holds a BSc (Hons) in Biomedical Science and an MA in Ageing & Society, and is completing a PhD on the sociohistorical and epistemological preconditions for the formation of Western scientific knowledge on ageing.

September 27:

Insider Perspectives from the NAM Catalyst Award Selection Process

A conversation between the NAM President and NAM Selection Committee Co-Chairs



Tim Evans



Roderic Pettigrew

Roderic I Pettigrew, PhD, MD, is the Robert A. Welch Professor of Medicine, and serves as CEO of Engineering Health (EnHealth) and executive dean for Engineering Medicine (EnMed) at Texas A&M and Houston Methodist Hospital where he is Adjunct Professor of Nanomedicine. He was the founding Director of the US National Institute of Biomedical Imaging and Bioengineering (NIBIB) of the NIH [2002-2017], building it into the signature NIH institute for emerging medical technologies. Of note, under Dr Pettigrew's leadership, NIBIB produced more patents per appropriated dollar than any other federal agency returning \$30 per each \$1 invested in research or 3000% (5 x the already remarkable NIH Average of 600%). On the 10th anniversary of NIBIB, the U.S. Senate unanimously passed a resolution commending the institute for its leadership and impact in improving the nation's health through technological innovation.