KFAS
مؤسسة الكويت للتقدم العلمي
Kuwait Foundation for the Advancement of Sciences

NATIONAL ACADEMIES
Sciences
Engineering
Medicine

Precision Medicine

Workshop

2-3 Feb. 2025

Overview

Welcome to the Precision Medicine Workshop, which aims to promote knowledge exchange and collaboration between Kuwait and the United States.

This event is a collaborative effort between the Kuwait Foundation for the Advancement of Sciences (KFAS) and the U.S. National Academies of Sciences, Engineering, and Medicine (NASEM).

The goal of this workshop series is to foster the exchange of knowledge on the latest advancements in precision and personalized medicine between experts from both Kuwait and the U.S. The inaugural workshop in this series will focus on recent developments in point-of-care technologies in both nations. Participants will engage in discussions on the transformative role of artificial intelligence in precision medicine, while also highlighting how cutting-edge precision health research is reshaping our understanding, diagnosis, and treatment of chronic diseases, such as diabetes—conditions that are prevalent in both Kuwait and the United States.

We look forward to an inspiring and fruitful exchange of ideas that will pave the way for future collaborations in this field.

Dr. Salman K. Al-Sabah (Co-Chair)

President

Kuwait Authority for Medical Responsibility

Kuwait

Dr. Salman K. Al-Sabah is a distinguished surgeon and authority in bariatric and metabolic surgery. He earned his medical degree from Kuwait University and completed his general surgery residency at McGill University, Canada. He holds a fellowship in minimally invasive surgery, a Master of Management from McGill University's Desautels Faculty of Management, and a master's degree in clinical services operations from Harvard Medical School.

Dr. Al-Sabah is the president of the Authority for Medical Responsibility (AMR) in Kuwait. He previously served as the founding chairman of surgery and director of surgical research at Jaber Al-Ahmad Al-Sabah Hospital, as well as associate professor and assistant vice principal for research and external collaboration at Kuwait University. He has been a visiting professor at Harvard University's Brigham and Women's Hospital.

His expertise includes metabolic and bariatric surgery, minimally invasive surgery, advanced endoscopy, medical law, and health policy. With over 130 publications and five books, Dr. Al-Sabah is a board member, founder, and past president of the Gulf Obesity Surgery Society, founder and president of the Kuwait Association of Surgeons, and past governor and president of the American College of Surgeons.

Dr. Fawaz G. Haj (Co-Chair)
Professor of Nutrition and Internal Medicine
University of California, Davis
United States

Dr. Fawaz G. Haj is a professor of nutrition and internal medicine at the University of California, Davis. His research program investigates the molecular mechanisms underlying metabolic homeostasis, including obesity, type 2 diabetes, and its complications. He employs genetic, pharmacological, biochemical, and metabolomics approaches to decipher the role of protein tyrosine phosphatases (PTPs) and soluble epoxide hydrolase in metabolic regulation.

Dr. Haj has over 25 years of experience studying the regulation of physiological processes and pathophysiological counterparts. During his D.Phil. at the University of Oxford, he studied the role of receptor PTPs in physiology and neurobiology. At Harvard University and EMBL, he investigated the role of tyrosine phosphorylation and dephosphorylation in cell signaling, obesity, and diabetes.

As a principal investigator at the University of California, Davis, for the past 17 years, he has had the privilege of conducting research in a highly collaborative and outstanding scientific environment. Dr. Haj's laboratory includes dedicated team members who are committed to the development of mechanism-based therapies to combat chronic metabolic diseases.

Dr. Hutan Ashrafian (Member)

Professor, Lead for Applied AI, and Chief Scientific Officer of Preemptive Health

Leeds University Business School, Institute of Global Health Innovation, and Flagship Pioneering, United Kingdom

Dr. Hutan Ashrafian is a clinician-scientist, entrepreneur, and active surgeon, translating novel technologies and therapeutics in healthcare and policy. He leads the STARD-AI and QUADAS-AI global guideline initiatives for AI diagnostic accuracy. He manages collaborations with Imperial College London, NHS Hospitals, and Google on an AI algorithm for breast screening, and with NICE on health technology assessment (HTA) classifications for AI.

Dr. Ashrafian was awarded the Royal College of Surgeons Arris and Gale Lectureship, the Hunterian Prize, the Wellcome Trust Research Fellowship, and an NIHR Clinical Lectureship. He has authored over 550 publications and 12 personally authored books. Several eponymous medical signs bear his name, including the Ashrafian sign for aortic regurgitation, and he described his own procedure, the Ashrafian Thoracotomy.

He is currently the lead for applied artificial intelligence (AI) and big data at the Institute of Global Health Innovation at Imperial College London and chief scientific officer of preemptive health at Flagship Pioneering, the largest global venture incubator that generated Moderna. Dr. Ashrafian co-founded Oxford Medical Products. He completed a Ph.D. in computational physiology and metabolic surgery at Imperial College London, where he was also chief scientific adviser at the Institute of Global Health Innovation. He later earned an MBA with distinction from Warwick Business School.

Dr. Stacey Gabriel (Member)

Executive Vice President for Platforms and Scientific Execution, Broad Institute

United States

Dr. Stacey Gabriel is the executive vice president for platforms and scientific execution at the Broad Institute of MIT and Harvard. Prior to her current role, she led platform development, execution, and operation for the Genomics Platform, starting with the Broad Institute's founding in 2003. She is also an institute scientist and serves on the institute's executive leadership team.

Dr. Gabriel is widely recognized as a leader in genomics technology and its application to foundational research programs. Her early work was foundational to the International HapMap Project. She has led the Broad Institute's contributions to numerous flagship resource-building programs in human genetics, including the 1000 Genomes Project, The Cancer Genome Atlas (TCGA), and the TOPMed program. She is the principal investigator of the Broad Institute All of Us (AoU) Genomics Center and serves on the AoU Program Steering Committee.

Dr. Gabriel received her B.S. in molecular biology from Carnegie Mellon University and her Ph.D. in human genetics from Case Western Reserve University.

Dr. Ahmad Nabeel (Member)

Physician, Kuwait Ambassador for Vision 2035, CEO
Ministry of Health Kuwait, Gulf Medical Technologies
Kuwait

Dr. Ahmad Nabeel is a distinguished researcher and physician at St. Mary's Hospital, part of Imperial College London, where he is also pursuing a Ph.D. in the Department of Surgery and Cancer. With a master's degree in surgical innovation from Imperial (ranked 2nd in the world - QS ranking 2025) and a passion for integrating artificial intelligence into healthcare, his notable invention, the Klens surgical vision system, has the potential to transform surgical safety and efficiency.

As a judge on Stars of Science, Dr. Nabeel evaluates and nurtures innovations across various domains, fostering the development of novel digital solutions. His recognition includes the Innovators Under 35 award by MIT Technology Review and several international accolades. An advocate for educational and technological progress, Dr. Nabeel's contributions are part of Kuwait's official school curriculum, promoting knowledge in medical science and innovation.

As an ambassador for Kuwait Vision 2035, he advocates for the advancement of national technologies. His work and perspectives have been featured in numerous international and scientific media outlets, including Bloomberg's Advancements with Ted Danson. Dr. Nabeel's commitment extends to public health initiatives, exemplified by his development of the HealthPass contact-tracing app during the COVID-19 pandemic.

Dr. Susan J. Sumner (Member)
Professor of Nutrition and Pharmacology
University of North Carolina at Chapel Hill
United States

Dr. Stacey Gabriel is the executive vice president for platforms and scientific execution at the Broad Institute of MIT and Harvard. Prior to her current role, she led platform development, execution, and operation for the Genomics Platform, starting with the Broad Institute's founding in 2003. She is also an institute scientist and serves on the institute's executive leadership team.

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Dr. Gabriel received her B.S. in molecular biology from Carnegie Mellon University and her Ph.D. in human genetics from Case Western Reserve University.

Dr. Ibrahim Rashid Al Rashdan

Board Member – Kuwait Foundation for the Advancement of Sciences (KFAS)

Kuwait

- Member of the teaching staff at the Faculty of Medicine at Kuwait University.
- Consultant cardiovascular specialist, specializing in Interventional Cardiology.
- President of the Kuwait Cardiac Society (2004).
- A Bachelor's degree in Basic Medical Sciences from Kuwait University (1986).
- A Bachelor of Medicine and Surgery from Kuwait University (1989).
- American Board of Internal Medicine (1995).
- Fellowship of the Canadian Royal College of Internal Medicine (1996).
- American Board of Cardiology (1998).
- Fellowship of the Canadian Royal College of Cardiology (1998).
- American Board of Interventional Cardiology Specialization (1999).

Dr. Ameenah Rajab Farhan

Director General – Kuwait Foundation for the Advancement of Sciences (KFAS)

Kuwait

Dr. Farhan's journey began at The Catholic University of America in Washington D.C., where she earned her Ph.D. in Physics. Her research interests in Theoretical Nuclear Physics, Nuclear Structure and Astrophysics have made a profound contribution to the field. Her professional path led her to be member of the Faculty of Physics, Physics Department Chair and Vice Dean for Research at Kuwait University.

Dr. Farhan has been an influential figure in the global scientific community. Moreover, her dedication to advancing science led her to be a Board member in numerous institutions, including the American University of Kuwait, Saud N. Al-Sabah Kuwait Diplomatic Institute and Kuwait Institute for Scientific Research.

Currently, Dr. Farhan is the Director General at the Kuwait Foundation for the Advancement of Sciences (KFAS). She served as a jury member for the prestigious L'OREAL UNESCO For Women in Science (FWIS) Middle East Fellowship Program, advocating for the recognition and support of women in the scientific disciplines. She is also a member in several professional organizations, such as American Physical Society (APS), International Network of Nuclear Structure and Decay Data Evaluators (NSDD) and American Academy for the Advancement of Science (AAAS).

Dr. Dalal Najib

Senior Director, Science and Engineering Capacity Development, The National Academies of Sciences, Engineering, and Medicine

United States

Dr. Dalal Najib is the senior director for Science and Engineering Capacity Development activities at the Policy and Global Affairs (PGA) Division of the U.S. National Academies of Sciences, Engineering and Medicine (NASEM).

Dr. Najib manages the Arab-American and US-Africa Frontiers programs. She has worked for nearly 10 years on the USAID- funded Partnerships for Enhanced Engagement in Research (PEER) program where she managed the sub-Saharan Africa, Middle East and the Central Asia regions. She is the principal investigator of multiple awards from various agencies, including NSF (6), USAID, NASA and DOD.

Dr. Najib first joined the National Academies as a Mirzayan Science and Technology policy fellow at the Aeronautics and Space Engineering Board (ASEB). She holds a PhD in Climate and Space Sciences and Engineering and a master's degree in public policy (MPP) from University of Michigan. Prior to that, she received her undergraduate degree in aerospace and aeronautical engineering from Supaero (Toulouse, France).

Dr. Fahd Al-Mulla

Chief Scientific Officer & Head of the Translational Research Department, Dasman Diabetes Institute

Kuwait

Dr. Fahd Al-Mulla is a professor of molecular pathology and genomic medicine at Kuwait University and the chief scientific officer at Dasman Diabetes Institute.

He established two laboratories at Kuwait University: a research core facility serving over 600 academics and a molecular diagnostic lab. With expertise in genetics, genomics, and precision medicine, Dr. Al-Mulla holds 10 patents related to diabetes, wound healing, and cancer. He founded the Office for Technology Transfer and Patenting at both Kuwait University and Dasman Diabetes Institute, advancing the patenting of innovative ideas.

Dr. Al-Mulla earned his Medical Doctorate and Ph.D. from Glasgow University and is a Fellow of the Royal College of Physicians of Edinburgh. As an author for Nature's Biotechnology blog, his mandate is to build collaborative partnerships, invest in institutional outputs, generate capital and resources, and promote public awareness regarding the importance of scientific research in addressing the Arab society's problems, particularly related to diabetes, obesity, and cancer.

He serves as the Chair of the Evidence Group in the Global Genomic Medicine Collaborative (G2MC) and previously chaired the International Confederation of Countries Advisory Council of the Human Variome Project.

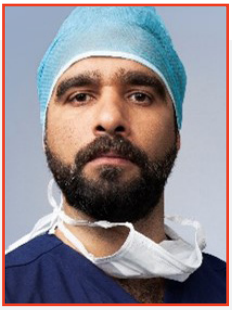
Dr. Ahmad Al-Serri
Associate Professor of Genetics and Behavioral Science, Kuwait University
Kuwait

Dr. Ahmad Al-Serri is an associate professor of genetics and behavioral science at the Faculty of Medicine of Kuwait University. He completed his academic training at the University of Leeds and Newcastle University in the United Kingdom.

Dr. Al-Serri has published extensively in peer-reviewed journals, focusing on genetic predispositions to obesity and the role of genetic variations in weight loss outcomes.

He recently earned a master's degree in behavioral science from the Department of Psychology and Behavioral Sciences at the London School of Economics and Political Science. His current research explores the intersection of genetics and behavioral science, particularly the impact of sharing genetic information with individuals affected by obesity.

Dr. Mohammad Jamal
Professor & Surgeon
Kuwait University
Kuwait



Dr. Jamal is a professor of surgery at Kuwait University and a consultant metabolic and upper GI surgeon. He graduated with first-class honors from Aberdeen University and completed his surgical residency at McGill University.

Dr. Jamal obtained a fellowship in hepatobiliary and transplant surgery, followed by a second fellowship in advanced laparoscopy, robotics, and bariatric surgery at the Cleveland Clinic. He also holds the American Board of Obesity Medicine fellowship.

Dr. Jamal established the bariatric surgery fellowship program in Kuwait, where he became the founding program director. He has authored more than 110 papers and book chapters published in peer-reviewed journals and has received multiple grants from the Kuwait Foundation for Advancement of Science.

In 2019, he was awarded the Pioneer in Clinical Services Award from the Kuwait Surgical Society for starting the liver transplant program in Kuwait. In 2023, he received the most prestigious scientific prize in Kuwait, the Kuwait Foundation for Advancement of Science Prize, awarded by the Emir of Kuwait, for his scientific productivity.

Dr. Jason Kim

Professor of Medicine & Molecular Medicine
Director of Metabolic Disease Research Center
University of Massachusetts Chan Medical School
United States

Dr. Kim graduated from the University of California, Irvine, with a B.S. in biology in 1991 and earned a Ph.D. in physiology and biophysics from the University of Southern California in 1996. He began his academic career in 2002 at Yale School of Medicine, later joining Penn State College of Medicine and the University of Massachusetts Amherst as a tenured professor.

Over 30 years, his research has focused on type 2 diabetes and obesity, resulting in 186 peer-reviewed publications with over 37,000 citations.

An NIH-funded scientist since 2001, Dr. Kim explores the molecular link between obesity and metabolic diseases. As program director of the National Mouse Metabolic Phenotyping Center, he oversees studies on 400+ transgenic mouse models of human diseases, collaborating with researchers worldwide and conducting drug trial studies for new therapies. His current NIH-funded research investigates metabolic liver disease and the links between Alzheimer's disease and type 2 diabetes.

His expertise is globally recognized as an adjunct professor at Seoul National University, adjunct investigator at Harvard Medical School, a member of the dean's advisory board of the University of Hong Kong, and an external advisory committee member for Johns Hopkins University and Hawaii Diabetes Center. He also serves on several pharmaceutical scientific advisory boards. Dr. Kim's leadership includes chairing NIH and AHA grant review committees and mentoring over 100 students, trainees, and faculty who are now established investigators.

Dr. Rohit Kulkarni

Professor of Medicine, Harvard Medical School
Diabetes Research and Wellness Chair and Senior Investigator, Joslin Diabetes Center
United States

Rohit N. Kulkarni, M.D., Ph.D., holds the Diabetes Research and Wellness Foundation Chair and serves as Co-Section Head of Islet Cell and Regenerative Biology and Associate Director of the Diabetes Research Center at Joslin. He is a professor of medicine at Harvard Medical School, an associate member of the Broad Institute of MIT and Harvard, and principal faculty at the Harvard Stem Cell Institute.

Dr. Kulkarni's contributions to diabetes research have been recognized with prestigious awards, including the Ernst Oppenheimer Award from the Endocrine Society, the Albert Renold Prize from the European Association for the Study of Diabetes (EASD), and the Paul E. Lacey Medal and Award. He is an elected member of the American Association of Clinical Investigation, the Association of American Physicians, and the American Association for the Advancement of Science.

His laboratory focuses on understanding mRNA modifications, organ crosstalk, and the regulation of pancreatic endocrine and exocrine functions, with the ultimate goal of developing cures for diabetes and obesity.

Dr. Mehrtash Babadi

Institute Scientist and Director of Computational Methods, Broad Institute

United States

Dr. Mehrtash Babadi is the director of computational methods in the Data Sciences Platform at the Broad Institute of MIT and Harvard and an institute scientist. He leads the Cellarium AI Lab, which develops open-source software, models, and services at the intersection of AI and cell biology. The lab focuses on advancing the analysis of single-cell and spatial omics data, cellular morphology, electrophysiology, and voltage imaging, with applications in psychiatric, cardiovascular, and infectious diseases. Core values include innovation, mathematical rigor, usability, transparency, and reproducibility.

Dr. Babadi's recent research centers on two themes: integrating and interrogating large-scale multi-modal single-cell datasets using AI methodologies and building principled foundation models of cells and tissues. Previously, he led the development of GATK, including a clinically accurate germline copy-number variant detection method for exome sequencing.

Before joining the Broad in 2016, Dr. Babadi was a postdoctoral fellow at Caltech's Institute for Quantum Information and Matter, where he researched non-equilibrium superconductivity and quantum many-body systems. He holds a Ph.D. in theoretical condensed matter physics from Harvard University and dual B.Sc. degrees in mathematics and physics from Sharif University of Technology.

Dr. Amina Qutub

Burzik Endowed Professor in Engineering Design
& Associate Professor of Biomedical Engineering
Assistant Director of Strategic Partnerships &
Research Thrust Lead at MATRIX AI Consortium
University of Texas at San Antonio
United States

Dr. Amina Ann Qutub is the Burzik Professor of Engineering Design and associate professor of biomedical engineering at the University of Texas, San Antonio. She serves as the assistant director of strategic alliances and a research thrust lead for the Augmenting Human Performance thrust in the MATRIX Artificial Intelligence Consortium.

Dr. Qutub is also the director of the UTSA – UT Health San Antonio Graduate Group in Biomedical Engineering and a co-lead of the Center for Precision Medicine. The Qutub Lab pioneers methods at the interface of computer science, biology, and engineering to study the design of human cells and help eradicate diseases affecting cells of the brain and vasculature.

Dr. Qutub serves on the U.S. National Academies Committees for Advances and National Security Implications of Transdisciplinary Biotechnology and Transformative Science and Technology for the Department of Defense. Dr. Qutub is an AIMBE Fellow, National Academies Keck Future Initiatives Awardee, and NSF CAREER Awardee. She received her Ph.D. in bioengineering from the University of California, Berkeley, and UCSF, and completed a postdoctoral fellowship in biomedical engineering at The Johns Hopkins University, School of Medicine.

Dr. Sarah Al Youha
Assistant Professor of Plastic Surgery,
Kuwait University
Senior Specialist Plastic Surgeon,
Royale Hayat Hospital
Kuwait

Dr. Sarah Al Youha is an assistant professor at Kuwait University, as well as a plastic surgeon at Royale Hayat Hospital in Kuwait.

She has PhD in Medical Sciences (particular focus on wound healing and tissue regeneration) from The University of Manchester in UK. With her dual leadership roles in academia and clinical practice.

Dr. Al Youha is distinctly positioned to shape the next generation of plastic surgeons in Kuwait while spearheading patient care innovations.

Dr. Hilal Lashuel

Research, Development and Innovation Advisor for the Chairperson of Qatar Foundation
Founder and Chief Executive Officer of ND BioSciences
Qatar

Prof. Hilal Lashuel is the research development and innovation advisor to the chairperson of Qatar Foundation and executive director of RDI at the chairperson's office. He is also director of the Laboratory of Chemical Biology of Neurodegeneration and founder and CEO of ND BioSciences SA.

Prof. Lashuel earned his B.S.C. in chemistry from the City University of New York (1994) and completed his doctoral studies at Texas A&M University and the Scripps Research Institute (2000). He held research positions at the Picower Institute, Harvard Medical School, and Brigham and Women's Hospital before joining EPFL in 2005, where he is now associate professor of neuroscience. His research focuses on chemical biology to study protein misfolding and aggregation in neurodegenerative diseases, with the aim of developing therapies and diagnostics.

He has served in leadership roles as executive director of Qatar Biomedical Research and vice chair of the International Scientific Advisory Committee of Qatar Biobank. Prof. Lashuel has authored 225 peer-reviewed publications, holds nine patents, and his work has received over 30,000 citations (H-index of 92). He has been recognized with numerous awards, including the Takreem Foundation's Scientific Achievement Award and the Kuwait Prize in Fundamental Sciences. Named a Young Global Leader by the World Economic Forum in 2012, he was also recognized as one of the "100 Outstanding Personalities" in French-speaking Switzerland by L'Hebdo.

Dr. Ali Mokdad

Chief Strategy Officer of Population Health
University of Washington
United States

Ali H. Mokdad, Ph.D., is professor of health metrics sciences at the Institute for Health Metrics and Evaluation (IHME) and chief strategy officer for population health at the University of Washington.

Prior to IHME, Dr. Mokdad worked at the U.S. Centers for Disease Control and Prevention. He has published groundbreaking research on local-level disease trends and leading risk factors for poor health. His work on obesity is among the most highly cited in the field.

Dr. Fawaz Alzaid
Senior Scientist and Head of Bioenergetics and Neurometabolism
Dasman Diabetes Institute
Kuwait

Dr. Fawaz Alzaid is a senior scientist and head of department at the Dasman Diabetes Institute (Kuwait City, Kuwait) and an associate researcher (CRCN), heading a research group at the French National Institute of Health and Medical Research (INSERM, Paris, France).

An accomplished investigator in diabetes research, his work focuses on metabolism, inflammation, and macrophage biology. His team includes two Ph.D. students, three post-docs, two technical staff, and one scientist.

His projects investigate innate immune cell diversity and transcriptional mechanisms of inflammation and energetic adaptation in metabolic diseases such as diabetes and obesity. His highlights include publications in Nature Medicine, Nature Communications, EMBO Molecular Medicine, and Circulation Research on mechanisms of tissue inflammation and complications of diabetes.

Dr. Kathleen Barnes
Senior Vice President of Population Health & Precision Medicine
Oxford Nanopore Technologies
United States

Dr. Kathleen Barnes' career spans over 30 years, focusing on genomic medicine and precision-driven health equity. She completed her BSN at the Medical College of Virginia, her Ph.D. in biomedical anthropology at the University of Florida, and a postdoctoral fellowship in immunogenetics at Johns Hopkins University.

She has built research and clinical programs, continuously NIH-funded for nearly 25 years, and has led interdisciplinary teams integrating biomedical informatics, multi-omics platforms, translational research, and global health at Johns Hopkins University (1993–2015) and the University of Colorado (2015–present), where she founded the Colorado Center for Personalized Medicine.

She also served as senior vice president of population genomics health at Tempus Labs (2021–2023). In 2023, she joined Oxford Nanopore Technologies to establish a new program in population health and precision medicine.

Dr. Donna Ryan

Professor Emeritus at Pennington Biomedical Research Center
Past President of The Obesity Society
United States

Donna Ryan is Professor Emerita at Pennington Biomedical in Baton Rouge, LA, USA, where she led the obesity and nutrition clinical research programs. She was an investigator on POUNDS Lost, Look AHEAD, DPP, DASH, and many other studies focused on the health benefits of weight loss through diet, lifestyle intervention, and medications. Her personal research examined improving primary care management of obesity.

Dr. Ryan has been an active member and former president of The Obesity Society (North America) and the World Obesity Federation. She served as co-chair of the SELECT Steering Committee and is a member of the Data Safety Monitoring Boards for setmelanotide, retatrutide, and CIN-110-112.

With more than 300 publications, Dr. Ryan is a frequent speaker on obesity and diabetes treatments. She remains an active consultant and advisor to companies developing drugs, devices, lifestyle programs, and medical approaches to obesity management.

Dr. Vasilis Vasiliou
Department Chair and Professor of Epidemiology
Yale University
United States

Dr. Vasilis Vasiliou is the Susan Dwight Bliss Professor of Epidemiology and chair of the Department of Environmental Health Sciences at Yale School of Public Health (YSPH). He is also a professor at the Yale School of the Environment and Yale School of Medicine. Dr. Vasiliou earned his B.Sc. in chemistry and Ph.D. in biochemical pharmacology from the University of Ioannina, Greece, and completed postdoctoral training in molecular toxicology and pharmacogenetics at the University of Cincinnati.

In 2014, he joined the faculty of Yale University in his new position. His laboratory utilizes state-of-the-art integrated system approaches that include metabolomics, lipidomics, exposomics, tissue imaging mass spectrometry, deep learning, as well as human cohorts and genetically engineered mouse models to elucidate mechanisms, and to discover biomarkers and novel interventions for human disease.

Dr. Vasiliou directs the NIEHS/NIH-funded Yale Superfund Research Center and the NIAAA/NIH-funded R24 Resource Center for Mouse Models and Metabolomics Tools for Alcohol Metabolism and Tissue Injury. He also co-leads NIH-funded programs, including the T32 Translational Alcohol Research Program (TARP) for postdoctoral fellows and the R25 Summer Research Experience in Environmental Health (SREEH) for Connecticut undergraduates.

Dr. Abeer Al Saegh
Head of Cancer Genomics
University Medical City Comprehensive Cancer Care and Research Centre
Oman

Dr. Abeer Al Saegh is a renowned Omani medical geneticist with a strong background in genetic disorders and familial cancer syndromes. After graduating with an MD from Sultan Qaboos University, where she was recognized for her academic excellence, Dr. Al Saegh pursued advanced training in medical genetics at the University of Calgary, Canada, and the Royal College of Physicians and Surgeons of London.

Upon returning to Oman, she established the country's first cancer genetics clinic at Sultan Qaboos University Hospital and subsequently led the genomics department. Currently, Dr. Al Saegh serves as the head of cancer genomics at the comprehensive cancer care and research center.

A dedicated advocate for patients with rare diseases, Dr. Al Saegh founded and remains an active member of the Oman Society of Genetic Medicine. Her research interests encompass genomic population screening for multifactorial diseases, genomic premarital screening, and the genomics of autism spectrum disorder.

Dr. Saeed Hassanpour
Professor and Director of Center for Precision Health & Artificial Intelligence
Dartmouth College
United States

Dr. Saeed Hassanpour is the founding director of the Center for Precision Health & AI (CPHAI) and a professor in the Departments of Biomedical Data Science, Computer Science, and Epidemiology at Dartmouth. His research focuses on machine learning and multimodal data analysis for precision health. His lab has pioneered advancements in digital pathology through deep learning methodologies.

Dr. Hassanpour has led multiple NIH-funded research projects, resulting in novel machine learning models for medical image analysis and clinical text mining to improve diagnosis, prognosis, and personalized therapies. His research has yielded numerous publications, software tools, and datasets that have received multiple awards, including the Agilent Early Career Professor Award for contributions to developing breakthrough AI solutions for advancing cancer diagnostics.

He has served as a standing member on various national and international scientific panels and committees, such as the NIH Clinical Data Management and Analysis Study Section and the JAMIA Open Editorial Board. Before joining Dartmouth, he worked as a research engineer at Microsoft. Dr. Hassanpour earned his Ph.D. in Electrical Engineering and Biomedical Informatics from Stanford University and completed his postdoctoral training at the Stanford Center for Artificial Intelligence in Medicine & Imaging.

Ms. Shaima Alasiri
Legal Affairs Manager
Kuwait Authority for Medical Responsibility
Kuwait

Ms. Shaima Alasiri is a legal professional with expertise in private and international law. She holds a Master's degree in Private Law from Kuwait University, where her thesis focused on the protection of commercial competition and the concept of dumping. She also earned a Bachelor's degree in Law from the same university.

Shaima has furthered her education with certifications, including courses on International Law in Action from Leiden University and the American Constitution from Yale University.

Currently, Shaima serves as the Legal Affairs Manager at the Authority for Medical Responsibility, a position she has held since January 2023. She is also the head of the Technical Investigation Committee within the organization. Previously, she worked at the Public Authority for Food and Nutrition. She has taught Private Law at the Public Authority for Applied Education and Training. In addition to her professional roles, Shaima is a Certified Trainer, leading legal training courses on contract drafting, legal report writing, and administrative procedures for public sector entities. She has represented Kuwait in international legal forums and contributed to legal frameworks, such as the unified industrial law for GCC countries in collaboration with the World Bank. Her expertise spans civil, commercial, and government entity laws.

Dr. Ebaa Al Ozairi
Chief Medical Officer
Dasman Diabetes Institute
Kuwait

Dr. Ebaa Al Ozairi completed her BMSc (Hons) in Molecular Pathology at Dundee University (UK) and graduated from Aberdeen University (UK) for her medical studies. She pursued postgraduate training in Diabetes and Endocrinology at Newcastle University (UK) and was awarded a Fulbright Fellowship to Harvard Medical School.

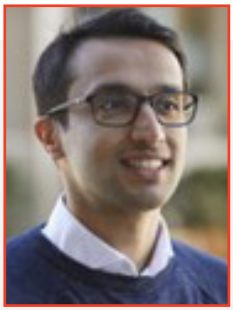
Dr. Al Ozairi holds the American Board for Physician Nutrition Specialists certification, is a Fellow at the American College of Nutrition, and completed the Rabkin Fellowship in Medical Education at Harvard Medical School. She serves as a reviewer for top journals, including The Lancet Endocrinology and Diabetic Medicine.

She has published over 90 peer-reviewed articles, authored four book chapters, and delivered 150 presentations at international conferences. Dr. Al Ozairi received the Amir Gold Medal Electronic Award and the Arab Regional Award for E-Technology for co-founding the leading Arabic diabetes website. She was the first woman President of the American Association of Clinical Endocrinologists–Gulf Chapter, now serving as Vice Chair of the World Obesity Federation and Co-Chair of IFSO's Integrated Health Committee.
Dr. Al Ozairi is the Chief Medical Officer at Dasman Diabetes Institute and a Consultant in Diabetes, Endocrinology, and Nutrition. Her team won the Diabetes UK Educational Award for pioneering DAFNE Ramadan.

Dr. Hamad Ali
Associate Professor of Genomic Medicine
Kuwait University and Dasman Diabetes Institute
Kuwait

Dr. Hamad Ali is an Associate Professor of Genomic Medicine at Kuwait University and Dasman Diabetes Institute. He also holds a position as a Visiting Scientist in the Nephrology and Hypertension Division at the Mayo Clinic in Rochester, USA. Additionally, Dr. Ali serves as a strategic partner for the Center for Arab Genomic Studies in the UAE.

Dr. Ali's research is at the forefront of utilizing genomics to deepen the understanding of the relationship between genotype and phenotype in genetic chronic kidney diseases, with a particular focus on Autosomal Dominant Polycystic Kidney Disease (ADPKD). His work extends to leveraging advanced genomic tools to enhance diagnosis, treatment strategies, and patient outcomes in the field of precision medicine.



Dr. Barrak Alahmad

Research Fellow, Harvard T.H. Chan School of Public Health
Physician at the Directorate of Public Health, Ministry of Health
Kuwait

Dr. Barrak Alahmad is a research fellow in the Exposure, Epidemiology, and Risk (EER) Program at the Department of Environmental Health at Harvard T.H. Chan School of Public Health and a physician at the Directorate of Public Health, Ministry of Health, Kuwait. He holds a medical degree from the University of Liverpool, a Master of Public Health (MPH) from Johns Hopkins Bloomberg School of Public Health, and a PhD in Population Health Sciences from Harvard.

Dr. Alahmad's research focuses on climate change and health in the Middle East, specifically the impacts of dust storms and extreme temperatures on vulnerable populations, including migrant workers. His work spans environmental cardiology and occupational health. It has been highlighted by the World Health Organization (WHO), the American Heart Association (AHA), and media outlets like the BBC, CNN, New York Times, and The Guardian.

In 2022, he was named in the inaugural 40 Under 40 Public Health Catalyst Awardees by the Boston Congress of Public Health. In 2023, he received the Rebecca James Baker Award from the International Society of Environmental Epidemiology (ISEE) for his collaborative work in environmental cardiology and health equity.

Dr. Sulaiman Almazeedi
Chief of Surgery, Jaber Al-Ahmad Hospital
Program Director, Kuwaiti Board of General Surgery
Kuwait

Dr. Sulaiman Almazeedi is a consultant general, bariatric, and colorectal surgeon. He is the chief of surgery at Jaber Al-Ahmad Hospital and the program director for the Kuwaiti Board of General Surgery. He received his M.B.B.Ch. from the Faculty of Medicine at Kuwait University and is a graduate of the Kuwait Board of General Surgery. He then obtained two fellowships from the UK: one in bariatric surgery at Chelsea and Westminster Hospital in London and another in colorectal surgery at The Royal Marsden Hospital in London. He also holds a master's degree in clinical service operations from Harvard Medical School.

Dr. Dari Alhuwail
Associate Professor of Information Sciences
Kuwait University
Kuwait

Dr. Dari Alhuwail is an Associate Professor at the Information Sciences Department in the College of Life Sciences, Kuwait University, an Adjunct Faculty member at the College of Medicine at the University of Dundee, and an Advisor to the Minister of State for Communication Affairs. He has significant experience in digital health, digital transformation, strategic leadership, and data governance.

Dr. Alhuwail is a Fellow of the International Academy of Health Sciences Informatics, a Fellow of the American Medical Informatics Association, a co-founder of the Kuwait Health Informatics Network, and a member of the Kuwait Health Informatics Association. He is also a Health Informatics Consultant, Data Security Officer, and a member of the Data Governance Council at Dasman Diabetes Institute. He served as a member of the Digital Health Technical Advisory Group at the World Health Organization.

Dr. Alhuwail earned his Ph.D. in Information Systems with a specialization in Health Informatics from the University of Maryland, Baltimore County, and his master's and bachelor's degrees from the University of Arizona. He has over 15 years of experience in industry and various labs worldwide. Recently, he won the Jaber Al-Ahmad Prize for Young Researchers in the field of Natural Sciences and Mathematics.

Dr. Khalid Fakhro
Chief Research Officer and Director of the Precision Medicine Program
Sidra Medicine
Qatar

Prof. Khalid A. Fakhro is the Chief Research Officer at Sidra Medicine and the Director of the healthcare facility's Precision Medicine program.

Prof. Fakhro joined Sidra Medicine as a Principal Investigator in July 2014 and became Director of the Human Genetics Department, where he built a robust genomic medicine research pipeline for the hospital. In 2018, he became the inaugural Director of Precision Medicine at Sidra, leading an ambitious program where research in genomics and personalized medicine is embedded in the heart of Sidra Medicine's academic medical enterprise.

Before joining Sidra Medicine, Prof. Fakhro was part of the Department of Genetic Medicine at Weill-Cornell Medicine in Qatar. Prof. Fakhro graduated with honors from the University of Chicago (USA), majoring in Biological Sciences with a specialization in Cellular Biology and Molecular Genetics. He later completed his PhD in Human Genetics at Yale University (USA), where he was part of the highly selective HHMI Translational Medicine Scholars program, designed to train basic scientists to take discoveries from the bench to the bedside.

He holds adjunct faculty appointments at both Weill-Cornell Medicine and Hamad bin Khalifa University, where he teaches and mentors the next generation of master's and Ph.D. students in human genetics and genomic medicine.

Dr. Zaid Almarzooq

Interventional Cardiologist
Instructor of Medicine, Harvard Medical School
Director of Structural Heart Program, Boston Veteran Affairs Healthcare System
United States

Zaid I. Almarzooq, MD, MPH, is a board-certified interventional cardiologist, Instructor of Medicine at Harvard Medical School, and Director of the Structural Heart Program at the Boston Veterans Affairs Healthcare System. His expertise is in cardiovascular medicine, focusing on novel techniques in percutaneous coronary interventions and structural heart disease interventions. He is a Fellow of the American College of Cardiology and the Society of Cardiovascular Angiography and Interventions.
His research applies causal inference methods to cardiovascular care and disease. Dr. Almarzooq has received multiple research grants and awards and has served on national committees, including the American Heart Association Epidemiology and Statistics Committee and the American College of Cardiology TVT Research and Publications Committee. He has also served on the editorial board of the American College of Cardiology ACCEL.

Dr. Almarzooq completed his medical school at the Royal College of Surgeons in Ireland, his internal medicine residency at New York Presbyterian Hospital/ Weill Cornell Medicine, and his cardiology fellowship at Brigham and Women's Hospital/Harvard Medical School. He also completed a master's in public health at Harvard University. He has held leadership positions, including serving on the Board of Directors of the National Residency Matching Program and has received numerous awards, including the Richard Gorlin Award for Excellence in Cardiovascular Medicine Research from Mass General Brigham/Harvard Medical School.

Mr. Manu Nair

Chair & Head of Corpoate Development,
Dept. of Business Development
United States

Manu Nair is Chair and Head of Corporate Development in the Department of Business Development at Mayo Clinic. Mr. Nair leads business development efforts that are of the highest strategic importance to Mayo Clinic, including the management of Mayo's $770M Strategic Business Development Capital investment fund.
Mr. Nair has previously served as Vice President of Technology Ventures for the Oklahoma Medical Research Foundation (OMRF). He was in charge of developing and commercializing OMRF's technologies, establishing strategic industry collaborations, and managing the innovation fund dedicated to such development efforts.

Mr. Nair started his technology commercialization career at OMRF in 2004 and was involved in OMRF's intellectual property (IP) commercialization and startup company efforts. He later joined Mayo Clinic Ventures (MCV) where he served as a technology licensing manager and subsequently as senior licensing manager. He also led MCV's international collaboration and funding initiatives. Mr. Nair served as vice chair of the Oklahoma Science and Technology R&D Board. He has served on the Board of Directors of the Legal Assistance of Olmsted County, Rochester, Minnesota and the Midwest University Research Network. He currently serves on the boards of IBIS Therapeutics, Jupiter Bioventures, Nucleus Radiopharma, USA Healthcare Alliance and Volnay Therapeutics, serves on the business advisory board of Progentec Diagnostics, and is a member of the External Advisory Committee for the NIH-funded SE XLerator Network Hub.

Dr. Suleiman Al-Sabah
Associate Professor of Pharmacology & Toxicology
Faculty of Medicine
Kuwait University
Kuwait

Dr. Suleiman Al-Sabah is an associate professor in the Department of Pharmacology & Toxicology, Faculty of Medicine, Kuwait University. He obtained his Ph.D. from the University of Leeds, U.K., in 2003, where he investigated the molecular pharmacology of the GLP-1 receptor. Following postdoctoral training in the laboratories of Professor Philip Strange and Professor Cornelius Krasel at the University of Reading, U.K., Dr. Al-Sabah worked on developing novel techniques to study the molecular pharmacology of G protein-coupled receptors.

He joined the Department of Pharmacology & Toxicology at Kuwait University as an assistant professor and was awarded the Best Young Researcher Award in 2015. He was promoted to associate professor in 2018 and became acting chairman of the department in 2020. In 2022, he was appointed director of the Research Core Facility.

Dr. Al-Sabah is currently on sabbatical as a visiting scientist in the laboratory of Professor Graham Ladds, Department of Pharmacology, University of Cambridge, U.K. He maintains several local and international collaborations and continues his research on the molecular pharmacology of G protein-coupled receptors and their potential as targets for novel therapeutics.

Dr. Mazin Magzoub
Associate Professor of Biology
New York University Abu Dhabi
United Arab Emirates

Mazin Magzoub is a biophysicist specializing in the development of novel methods for the delivery of antitumor agents and therapeutics for amyloid diseases (e.g. Alzheimer's, Parkinson's and prion diseases).

Prior to joining New York University Abu Dhabi, Dr. Magzoub was a postdoctoral scholar at the University of California, San Francisco, where he developed novel biophysical methods for measurement of transport of macromolecules (including therapeutics) deep in tissues such as tumors and brain. Subsequently, as an Associate Research Scientist at Yale University, he worked on deciphering the molecular mechanisms underlying type 2 diabetes.

Dr. Magzoub received his Ph.D. in biophysics from Stockholm University in 2004. The focus of his thesis work was elucidating the biophysical properties of cell-penetrating peptides, a class of peptides with the ability to mediate the cellular import of therapeutic compounds with high efficiency and low toxicity.

Mr. Joe Gordon

Vice President of Innovation and Technology
Veranex
United States

Mr. Joe Gordon drives Veranex's innovation process for our valued clients by identifying business strategies, opportunities, and new technologies that impact their core businesses whether it is solutions in medical devices, healthcare delivery, diagnostics and/or consumer healthcare products. He leads and advises cross-functional teams of experts, in collaboration with a global client base, to develop creative solutions for our most challenging and complex projects. Examples include the clean slate development of a digital surgical robotic system through traceable builds in just over 3 years.

Throughout his 25+ year career, quarterbacking over 300+ projects, Joe has been at the core of Veranex's ability to develop breakthrough solutions and is nearly always involved in overseeing nascent technology development and full end-to-end MedTech product development programs. In most every case, Mr. Gordon's role is to guide through the chaos to bring clarity to innovation and to distill it into practical digestible concepts. Correspondingly, Mr. Gordon is highly skilled in navigating the most crowded of patent landscapes while driving and building robust patent protection strategies for our clients.

Mr. Gordon has seasoned a breadth and an uncommon depth of demonstrated expertise in developing commercialized solutions across a wide range of specialized healthcare fields. From complex capital systems, next-gen wearables, or integrated drug delivery product platforms, Mr. Gordon is our valued expert that sets our innovation compass in the right direction.

Dr. Mohammad Qasaimeh
Associate Professor of Mechanical Engineering and Bioengineering
New York University Abu Dhabi
United Arab Emirates

Dr. Mohammad A. Qasaimeh is an Associate Professor of Mechanical Engineering and Bioengineering at NYU Abu Dhabi (NYUAD) and a Global Network Associate Professor at NYU Tandon School of Engineering. He serves as the Associate Director (Faculty Scholarship) at the NYUAD Center for Faculty Advancement.

Dr. Qasaimeh earned his Ph.D. in Biomedical Engineering from McGill University in 2013, receiving several prestigious fellowships and awards. Prior to joining NYUAD, he was a Postdoctoral Research Associate at MIT and a Research Fellow at Harvard Medical School.

Since joining NYUAD in 2014, Dr. Qasaimeh has established the Advanced Microfluidics and Microdevices Laboratory (AMMLab). His research focuses on developing microfluidic biochips and devices for point-of-care diagnostics, precision medicine, and biomedical applications. Dr. Qasaimeh received the Distinguished Service Award from NYUAD in 2022 and the Technology Innovation Pioneers Award from the UAE Ministry of Economy in 2020.

His research has been published in top journals such as Nature Communications, Advanced Science, and Lab on a Chip. He holds three issued patents and several filed applications. Dr. Qasaimeh has delivered over 45 keynote lectures and serves as an Associate Editor for Frontiers in Robotics and AI, among other editorial roles.

Dr. Aly Azeem Khan
Assistant Professor of Pathology and Family Medicine, University of Chicago
Head of AI and Machine Learning, Chan Zuckerberg Biohub Chicago
United States

Aly A. Khan, Ph.D., is an Assistant Professor of Pathology and Family Medicine at the University of Chicago. He also serves as the Head of AI/ML at the Chan Zuckerberg Biohub Chicago. His research integrates large-scale biological data and advanced computational methods to study immune function, with the goal of improving diagnostics and therapies.

Before joining the University of Chicago, Dr. Khan was a research faculty member at the Toyota Technological Institute at Chicago, where he established a computational immunology program and introduced novel approaches for analyzing immune responses using single-cell data. He has also led translational research at Merck, Genentech, Tempus, and 23andMe, broadly applying computational methods to advance precision medicine.

At the University of Chicago and the Chan Zuckerberg Biohub Chicago, Dr. Khan leads a multidisciplinary team developing computational models to measure, map, and modulate inflammation. His work has resulted in numerous publications in leading journals, including Science, Nature Biotechnology, Nature Genetics, Immunity, and Molecular Cell.
Dr. Khan earned his Ph.D. in Computational Biology jointly from Cornell University and Memorial Sloan Kettering Cancer Center. His honors include the Chan Zuckerberg Biohub Chicago Investigator Award and the NIH DP2 NIAID New Innovator Award.

Dr. Anna-Maria Pappa

Assistant Professor of Biomedical Engineering, Khalifa University Visiting Scholar, Cambridge University

United Arab Emirates

Dr. Anna-Maria Pappa is an Assistant Professor at the Department of Biomedical Engineering at Khalifa University and a visiting scholar at Cambridge University. Prior to this, she was the Oppenheimer Research Fellow at Cambridge University and the Maundslay-Butler Fellow at Pembroke College.

She received her Ph.D. in bioelectronics in 2017 from Ecole des Mines de St. Etienne. Dr. Pappa is currently leading the lab-on-chip/ biosensors group focusing on developing cutting edge technologies for next generation miniaturized sensors with applications in healthcare and environmental science.

Dr. Pappa has received multiple awards for her research including the L'Oreal-UNESCO Women in Science award, being listed in the Innovators under 35 MIT technology review and several awards in the area of entrepreneurship and innovation.

Dr. Zhila Semnani-Azad
Postdoctoral Research Fellow
Harvard T.H. Chan School of Public Health
United States

Dr. Zhila Semnani-Azad is an epidemiologist and CIHR-funded postdoctoral research fellow in the Department of Nutrition at the Harvard T.H. Chan School of Public Health. She earned her Ph.D. in Nutritional Sciences with a focus on diabetes epidemiology from the University of Toronto.

Dr. Semnani-Azad integrates epidemiological methods with precision approaches to understand factors impacting human health. Her primary research focuses on the role of obesity and lifestyle factors in cardiometabolic health. She incorporates high-throughput –omics techniques, specifically metabolomics, into traditional epidemiological methods to gain insights into underlying mechanisms that could explain the associations between obesity and type 2 diabetes, and related downstream complications.

These projects involve data spanning the life course from early childhood and into older adulthood from cohort studies based in North America and Europe. She is also an active member of the American Diabetes Association (ADA) and European Association for the Study of Diabetes (EASD) Precision Medicine in Diabetes Initiative. In this effort, Dr. Semnani-Azad collaboratively led the development of the BePRECISE (Better Precision-data Reporting of Evidence from Clinical Intervention Studies & Epidemiology) checklist, the first reporting guideline developed for improving the accuracy, safety, and health equity in precision medicine.

Mariel Lavieri
Associate Professor, University of Michigan
United States

Mariel Lavieri is an Associate Professor and the Associate Chair for Undergraduate Studies in the Department of Industrial and Operations Engineering at the University of Michigan. Born in Caracas, Venezuela, she has a Bachelor's Degree in Industrial and Systems Engineering and Statistics, and a minor in String Bass Performance from the University of Florida. She holds a Master's Degree and Ph.D. from the University of British Columbia. In her work, she applies operations research methods to medicine and human health. Among others, Dr. Lavieri has created dynamic programming, stochastic control, and continuous, partially observable state space models to guide screening, monitoring, and treatment decisions of chronic disease patients. She has designed models for health workforce and capacity planning that have guided both national and international policy. Dr. Lavieri's has been recognized for her championship of Diversity, Equity and Inclusion initiatives. Dr. Lavieri is the recipient of the National Science Foundation CAREER Award, the MICHR Distinguished Mentor Award, the Pierskalla Best Paper Award, and the Sanjay and Panna Mehrotra Research Excellence Award. She has guided work that won the Medical Decision-Making Lee Lusted Award, the INFORMS Doing Good with Good OR Award, the Minority Issues Forum Best Paper Award, and the Production and Operations Management Society College of Healthcare Operations Management Best Paper Award. Dr. Lavieri currently serves as the Health Care Department Editor at IISE Transactions and as the President of the Health Applications Society at The Institute for Operations Research and the Management Sciences.

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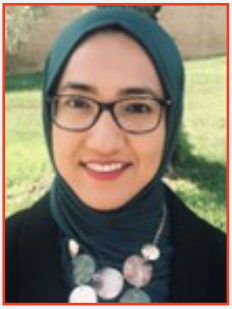

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