GUIRR at 40:
Reimagining the Triple Helix of Innovation, Investments, and Partnerships

Speaker Biographies

Keynote

Jack Scannell is best known for his work to diagnose the causes of the progressive decline in R&D productivity in the drug and biotechnology industry. He coined the term “Eroom’s Law” (from computer science’s “Moore’s Law” spelled backwards) to describe the contrast between falling biopharma R&D output efficiency since 1950 in the face of spectacular gains in basic science and in the brute force efficiency of the scientific activities on which drug discovery is generally believed to depend. His work has considered the contributions of scientific, economic, regulatory, and organisational factors. Recently, he has focused on the predictive validity of screening and disease models in drug R&D, which constitute perhaps the major productivity bottleneck. Dr Scannell is currently the CEO of Etheros Pharmaceuticals Corp. Etheros is developing small molecule enzyme mimetics, based on fullerene chemistry, for neurodegenerative diseases. He is an Associate of the Department of Science, Technology, and Innovation Studies at Edinburgh University. He led Discovery Biology at e-Therapeutics PLC, an Oxford-based biotech firm. He has experience in drug and biotech investment at UBS and at Sanford Bernstein where he ran the European Healthcare teams. He has a Ph.D. in neuroscience from Oxford University and a degree in medical sciences from Cambridge University.

New Strategic Partnerships that Can Accelerate R&D Productivity and Efficiency

Ron Winslow is a freelance medical and science journalist. He recently retired from The Wall Street Journal, where as an editor and senior medical correspondent he wrote broadly on the intersection of innovation and economics in the health care system during a career of nearly 34 years. In 2011, he won the Victor Cohn Award for Excellence in Medical Science Reporting from the Council for the Advancement of Science Writing. He is a past president of the National Association of Science Writers and was a founding board member of the Association of Health Care Journalists. He was co-chair of the 10th World Conference of Science Journalists in San Francisco in 2017.

Luke Walter is the Division Chief for AFWERX Capital Initiatives (RGI), overseeing a division which serves as the instrument for smart investment decisions within AFWERX. The Capital Initiatives Division executes two key programs: the Due Diligence Program, which identifies, defines, and mitigates foreign risks from small businesses seeking AFWERX funding; and Project Vanguard, which leverages private capital and market insights to boost investment in AFWERX-funded companies.

Luke began his career as a commissioned officer in the U.S. Marine Corps. From 2008 to 2015, he served in various roles with Marine Air Group-24, US INDOPACOM, Special Operations Command Pacific, and 1st Marine Raider Battalion. Career highlights include three deployments supporting combat operations, humanitarian relief efforts, and conducting international engagements.

After leaving active military service, Luke joined PricewaterhouseCoopers as a Senior Associate providing forensic accounting, anti-money laundering, and management consulting services. His work helped clients streamline forensic investigation processes which dramatically increased efficiency and introduced early cryptocurrency tracking and identification methods.

In 2018, Luke earned his Master's degree in Business Administration from Georgetown University. After graduation he joined Meta in New York, working as a Business Planning and Operations Associate within the Marketing Science division. He served as the business partner for several Director-level departments leading international investment, operations and process improvement, commercial partnership, and strategy projects.

Returning to Washington, DC, Luke joined Bloomberg Industry Group's financial planning and analysis office working on special projects and initiatives focused on consumer analytics. However, after several years working in commercial industries, Luke felt a calling back to national security. In 2021, he joined Systems Planning and Analysis to support the DoD's Committee on Foreign Investment in the United States (CFIUS) efforts. He was appointed team lead overseeing lawyers and cybersecurity experts responsible for ensuring compliance of national security agreements, and his work professionalized the office's approach to compliance, monitoring, and enforcement. He joined AFWERX in March 2023.

Megan Anderson is the Executive Vice President for the Technology division at In-Q-Tel. Her duties include overseeing the technology practices, the program management team and the project engineering teams in their delivery of strategic technical solutions to the Intelligence Community. Additionally, Dr. Anderson oversees IQT Labs in their delivery rapid technology solutions using open-source methodologies. Dr. Anderson previously ran each of the technology practices responsible for identifying and executing investments across a wide range of technologies including analytics, infrastructure, cyber security, electronics, communications, materials, power, sensors, and commercial space. Dr. Anderson began her career at IQT on the Technical Staff as a subject matter expert in the fields of materials, manufacturing, and biology.

Dr. Anderson is also a founding member of Chief, the premier private network for women executives. Prior to joining IQT, Dr. Anderson worked in the biotechnology sector where she developed products for next generation sequencing applications. She holds a B.A. in Applied Mathematics and a B.S. in Biology from the University of California, San Diego and a Ph.D. in Biochemistry and Molecular Biophysics from the California Institute of Technology.

Ram Shenoy is CEO of the RBR Group, offering advisory services on technology products & services innovation and commercialization working with Fortune Global 500 clients. He is an active angel investor, advises several venture capital firms in the areas of energy and technology, and serves on the boards of several startup companies.

He has had a career in the oil & gas industry with experience and expertise in the research, development and commercialization of technologies around the hydrocarbon reservoir lifecycle, spanning a broad range of scientific and engineering disciplines. Shenoy was CTO of ConocoPhillips, Before that he spent 20 years with Schlumberger where he was last Vice President of Research running the corporate research labs worldwide. He earned his B.A. and M.A. degrees in Electrical Sciences from Cambridge University UK, his Ph.D. in Electrical Engineering from Cornell University NY, and his MBA from the Stern School of Business, New York University.

Strategies for Open Innovation in the Context of Global R&D Ecosystems

Dan Vergano is a senior opinion editor at Scientific American. He has previously reported and edited at BuzzFeed News, National Geographic and USA Today, winning several awards and serving as a judge on various science writing contest panels. His educational background is in engineering, science policy and science journalism. He is based in Washington, D.C.

Patricia Gruber serves as the Science and Technology Adviser to the U.S. Secretary of State where she engages with academic and private sector research communities to inform foreign policy priorities. At the Office of Naval Research, she promoted domestic and international science and technology collaboration as the Director of Research and the Technical Director of ONR Global. She has held technical and business management positions at the Applied Research Laboratory at Penn State University, Battelle, AT&T, and Bell Laboratories. She holds a MS and a Ph.D. in Applied Marine Physics from the University of Miami.

James Bessen, an economist and technologist, serves as Executive Director of the Technology & Policy Research Initiative at Boston University. He has also been a successful innovator and CEO of a software company. Bessen is the author of *The New Goliaths: How Corporations Use Software to Dominate Industries, Kill Innovation, and Undermine Regulation* (Yale 2022) which details effects of the new information economy and what to do about them. Bessen has done research on the impacts of automation, how information technology has contributed to rising industry concentration, whether patents promote innovation, and how technology affects jobs, skills, and wages. With Michael J. Meurer, he wrote *Patent Failure* (Princeton 2008), highlighting the problems caused by poorly defined property rights. His book, *Learning by Doing: The Real Connection Between Innovation, Wages, and Wealth* (Yale 2015), looks at history to understand how new technologies affect wages and skills today. Bessen's work has been widely cited in the press as well as by the US White House and Supreme Court, the European Parliament, and the Federal Trade Commission.

Investment Strategies That Will Rapidly Advance Innovation to Markets

France Córdova is an astrophysicist and currently serves as the President of the Science Philanthropy Alliance. She was the 14th director of the National Science Foundation (NSF) starting in 2013.

Córdova has been a leader in science, engineering and education for more than three decades. She has a distinguished career in both higher education and government; her contributions in multi-spectrum research on x-ray and gamma ray sources and space-borne instrumentation have made her an internationally recognized astrophysicist.

She is president emerita of Purdue University, where she led the university to record levels of research funding, reputational rankings, and student retention and graduation rates.

Córdova is also chancellor emerita of the University of California, Riverside, where she was a distinguished professor of physics and astronomy and laid the foundation for a new medical school, California's first public medical school in over 40 years, and focused on student diversity and inclusion. At the University of California, Santa Barbara, where Córdova was vice chancellor for research and professor of physics, she led a campus-wide effort to support convergence in blue-sky research areas.

Previously, Córdova served as NASA's chief scientist, representing NASA to the larger scientific community and infusing the activities of the agency -- including the International Space Station, then under construction -- with the scientific goals of the broader community. She was the youngest person and first woman to serve as NASA's chief scientist and was awarded the agency's highest honor, the Distinguished Service Medal.

Prior to joining NASA, she was on the faculty of the Pennsylvania State University where she headed the department of astronomy and astrophysics. Córdova was also deputy group leader in the Earth and space sciences division at Los Alamos National Laboratory. She received her Bachelor of Arts degree from Stanford University and her doctorate in physics from the California Institute of Technology.

More recently, Córdova served as chair of the Board of Regents of the Smithsonian Institution and on the board of trustees of Mayo Clinic. She also served as a member of the National Science Board (NSB), where she chaired the Committee on Strategy and Budget.

Córdova's scientific contributions have been in the areas of observational and experimental astrophysics, multi-spectral research on x-ray and gamma ray sources and space-borne instrumentation. She has published more than 150 scientific papers. She was co-principal investigator for a telescope experiment that is currently flying on the satellite XMM-Newton, a cornerstone mission of the European Space Agency.

For her scientific contributions, Córdova has been awarded several honorary doctorates, including ones from Purdue, Duke, Yale, and Dartmouth Universities. She was honored as a Kilby Laureate, recognized for "significant contributions to society through science, technology, innovation, invention and education." Córdova has been elected to the American Academy of Arts and Sciences, the National Academy of Sciences, and the American Philosophical Society. She is also a fellow of the American Association for the Advancement of Science (AAAS) and the Association for Women in Science (AWIS). She has been inducted into the California Hall of Fame.

Anastasia Gamick is the Cofounder and Chief Operating Officer at Convergent Research. There, she is pioneering a new model for large-scale science projects called Focused Research Organizations (FROs), which address neglected bottlenecks in biomedicine, biosecurity, climate technology, and other areas.

Anastasia was the first operations hire at Neuralink, was Chief of Staff at the robotics company Creator, oversaw the Give Directly relationship at the fintech company Segovia, and led the scale-up of COVID-19 test production at Curative, Inc in the first weeks of the pandemic.

Brian Holloway leads a diverse team of technologists and entrepreneurs as they develop high-risk, high-reward opportunities into commercial successes via a novel research, development, and commercialization models as vice president, head of Deep Science Fund and Enterprise Science Fund for Intellectual Ventures (IV).

Brian joined IV from Lockheed Martin, where he served as the chief technology officer of the Advanced Technology Lab. Prior to Lockheed Martin, he spent 7 years in government civilian service as a Defense Advanced Projects Agency (DARPA) program manager and as an associate director of the US Navy Office of Naval Research Global (ONRG) in the London office.

Brian also led the Nano-Materials Research Group at Luna Innovations Incorporated and was an assistant and tenured associate professor in the Applied Science Department at the College of William & Mary, where he specialized in thin film deposition, and nanomaterial synthesis, characterization, and application development.

Brian earned a bachelor's in mechanical engineering from the University of Florida, and a master's and doctorate in mechanical engineering with a materials science minor from Stanford University. A named inventor on multiple U.S. patents, Brian has authored more than 50 articles in peer-reviewed technical publications. He's served as the associate editor of the Journal of Vacuum Science and Technology B, and President of the Thin Film Division of the American Vacuum Society. Honors include an MRS/OSA Congressional Fellowship, the William & Mary Arts and Science Distinguished Associate Professor, the 2013 University of Florida Mechanical Engineering Distinguished Alumni award, and the opportunity to ring the NASDAQ opening bell as a member of the Luna senior management team.

Edlyn Levine Dr. Edlyn V. Levine is Chief Executive Officer and co-founder of a stealth-mode technology start up. Prior to this position, Dr. Levine co-founded America's Frontier Fund and served as its Chief Science Officer. Dr. Levine was formerly Chief Technologist for the MITRE Corporation's Acceleration Office. At MITRE, she built and led a portfolio of pioneering research, programs, and consortia to drive foundational technology advancements in semiconductors, 5G telecommunications, quantum information science, remote sensing, ionospheric plasma modification, and nuclear effects. Dr. Levine is currently a research affiliate at MIT Sloan School of Management and serves as a faculty member at the Harvard Kennedy School of Government where she teaches on intersection of technology and national security. She has multiple peer reviewed publications and patents and has contributed as a subject matter expert to extended studies at the Defense Science Board and the Hoover Institute at Stanford. She has her M.S. and Ph.D. in Applied Physics from Harvard University, and her B.S. in Physics from the University of Pittsburgh.

David Sanford founded the Hypothesis Fund in 2022 to support breakthrough research that increases our adaptability against systemic risks to the health of humans and the planet. He currently serves as CEO and as a Member of the Board.

Prior to launching the Hypothesis Fund, David was Chief of Staff in the Office of Reid Hoffman, responsible for managing a broad portfolio of philanthropic, civic, business, and intellectual initiatives. He has served as a Board Observer at Change.org and on numerous nonprofit and company advisory boards.

David has pioneered community building both in the digital and physical realms. As an early employee at LinkedIn he created one of the first mechanisms for supporting philanthropic causes via social networks: LinkedIn for Good. After building early communities on the Web, David took this practice back to the physical world, opening and operating a restaurant designed to cultivate community through shared meals.
Earlier in his career, as a research assistant in the Orthopaedic Sciences Laboratory at the University of Washington, David developed a novel platform for studying bone loss, which remains a core component of the lab's research now two decades later.

David earned his B.A. degree with Honors from Stanford University.