**Linda Greenhouse**

*President*

Linda Greenhouse is a senior research scholar at Yale Law School, where she has taught since 2009. For 30 years before that, she was the Supreme Court correspondent for the *New York Times* and was awarded a Pulitzer Prize for her reporting. In 2005 she was awarded the American Philosophical Society’s Henry Allen Moe Prize in the Humanities in recognition of her paper “*‘Because We Are Final’: Judicial Review Two Hundred Years after Marbury,*” delivered as part of the symposium “The Two Hundredth Anniversary of Marbury v. Madison,” at the Society’s 2003 April Meeting and published in the March 2004 *Proceedings*. She was elected a member of the American Philosophical Society in 2001, became a Vice President of the Society in 2012, and was elected its President in 2017.

She is a graduate of Radcliffe College, Harvard University, and earned the degree of Master of Studies in Law from Yale Law School, which she attended on a Ford Foundation Fellowship. Among numerous awards during a 40-year career in journalism were the Pulitzer Prize (1998); the Henry J. Friendly Medal from the American Law Institute, of which she is an honorary member; and the Carey McWilliams Award from the American Political Science Association for “a major journalistic contribution to our understanding of politics.” In 2020 she received the Franklin Founder Award from “Celebration! of Benjamin Franklin, Founder,” a consortium of representatives of Franklin-related institutions.

Among her publications are *Becoming Justice Blackmun* (2005); (with Reva B. Siegel) *Before Roe v. Wade: Voices That Shaped the Abortion Debate Before the Supreme Court’s Ruling* (2010); *The U.S. Supreme Court: A Very Short Introduction* (2012); and (with Michael J. Graetz) *The Burger Court and the Rise of the Judicial Right* (2016); *Just A Journalist: On the Press, Life, and the Spaces Between* (2017); and *Justice on the Brink: The Death of Ruth Bader Ginsburg, the Rise of Amy Coney Barrett, and Twelve Months That Transformed the Supreme Court*. She is a former member of the Harvard University Board of Overseers and currently serves on the Senate of Phi Beta Kappa and the Council of the American Academy of Arts and Sciences.

**Robert M. Hauser**

*Executive Officer*

Robert Mason Hauser became the American Philosophical Society’s Executive Officer on June 12, 2017. He was born in Chicago and received a B.A. from University of Chicago in 1963. He went on to earn an M.A. in 1966 and a Ph.D. in 1968 at the University of Michigan. Among his mentors were two members of the APS, Otis Dudley Duncan and William Hamilton Sewell, Jr.

Bob Hauser is one of the preeminent quantitative sociologists of his generation. After two years at Brown University, he had a career of more than forty years at the University of Wisconsin-Madison. He has made fundamental contributions to the study of social stratification in advanced industrial societies. Building on the work of Peter Blau, Otis Dudley Duncan, and William H. Sewell, Hauser developed a model of intergenerational status attainment to challenge the idea that inequality stemmed primarily from differential rewards to human capital in the market. His analytic framework, which became known as “the Wisconsin model,” dominated sociological research on stratification for an entire generation. Hauser’s more than 120 papers also contributed to statistical models and survey methods, to social and psychological measurement, and to studies of family structure, academic achievement, grade retention, school dropout, obesity, end-of-life planning, mortality, and genetic effects (and non-effects) on educational attainment, health, and cognitive functioning. From 1968 onward, he directed the Wisconsin Longitudinal Study, a multi-disciplinary study of the life course and aging among more than 10,000 Wisconsin high school graduates of 1957. The sixth round of the study went into the field in 2011, and the WLS has become a major resource for investigators in the U.S. and other nations. His research has been supported by the National Science Foundation and the National Institutes of Health.

He has variously served as Samuel Stouffer Professor, Hilldale Professor, and Vilas Research Professor of Sociology at the University of Wisconsin-Madison. At UW-Madison, Hauser has directed the Center for Demography and Ecology, the Institute for Research on Poverty, and the Center for the Demography of Health and Aging. He has held fellowships from the Guggenheim Foundation, the Center for Advanced Study in the Behavioral Sciences, and the Russell Sage Foundation and visiting professorships at the University of Bergen and Peking University. He is a member of the American Academy of Arts and Sciences (1984) and the National Academy of Sciences (1984) and a Fellow of the American Association for the Advancement of Science, American Statistical Association, National Academy of Education, American Educational Research Association, the Gerontological Association of America, and the American Academy of Political and Social Science. He has mentored more than 50 doctoral students, and in 2002 he won the award of the American Sociological Association for distinguished contributions to teaching. In 2011, that association named its award for research in social stratification for him. In 2017 he completed a six-year term as the Executive Director of the Division of Behavioral and Social Sciences and Education at the National Academies. He was elected a member of the American Philosophical Society in 2005.

**Rowena G. Matthews**

*Vice President*

**Rowena G. Matthews** is the G. Robert Greenberg Distinguished University Professor of Biological Chemistry and a Research Professor and Charter Faculty Member, Life Sciences Institute at the University of Michigan. She received her B.A. from Radcliffe College and her Ph.D. from the University of Michigan.

Dr. Matthews is an internationally recognized authority on the role of folate- and B12-dependent enzymes in homocysteine metabolism and their relevance to disease. Her discoveries define the biochemical basis for establishing guidelines for folate levels in human nutrition. She also played a major role in the formulation of science policy both nationally and internationally. Dr. Matthews was a member of an international advisory panel for the Advanced Study Institutes of NATO from 1994-96, served on the Council of the National Institute of General Medical Sciences from 1991-94, and participated in the activities of the Federal Science Policy Committee on Science of the House of Representatives.

Dr. Matthews received the 2000 William A. Rose Award from the American Society for Biochemistry and Molecular Biology and the 2001 Repligen Award, from the American Chemistry Society. She has been a member of the National Academy of Sciences since 2002 and of the American Academy of Arts & Sciences since 2005. Dr. Matthews was elected a member of the American Philosophical Society in 2009.

**Ruzena Bajcsy**

*Member/Session Organizer*

**Ruzena Bajcsy** is the NEC Distinguished Professor Emeritus of Electrical Engineering and Computer Sciences at the University of California, Berkeley. She was the founding director of the Center for Information Technology Research in the Interest of Society (CITRIS) in 2001, a multi-campus organization comprising 4 campuses: UC Berkeley, UC Davis, UC Santa Cruz, and UC Merced. As part of her activities in CITRIS, and together with the University of California Center for the Humanities, she played a founding role in establishing a program of Digital Humanities. Dr. Bajcsy received her Master’s and Ph.D. degrees in electrical engineering from the Slovak Technical University, Bratislava, Slovak Republic, in 1957 and 1967 respectively, and a Ph.D. in computer science from Stanford University in 1972.

Before joining UC Berkeley, Dr. Bajcsy headed the Computer and Information Science and Engineering Directorate at the National Science Foundation from 1999 to 2001. Additionally, from 1972 to 2001 she was a professor in the Computer and Information Science Department at the University of Pennsylvania, where she established in 1978 the General Robotics, Automation, Sensing, and Perception (GRASP) Lab. As director of the GRASP lab she fostered interdisciplinary research activities and attracted faculty from electrical and mechanical engineering as well as psychology/cognitive science and of course computer science. Her current research is in the use of robotic technology, namely measuring and extracting noninvasively kinematic and dynamic parameters of individual in order to assess their physical movement capabilities or limitations.

Dr. Bajcsy is a member of the National Academy of Engineering and the National Academy of Medicine as well as a fellow of the Association for Computing Machinery (ACM) and the American Association for Artificial Intelligence (AAAI). In 2001 she received the ACM/AAAI Allen Newell Award, and in November 2002 she was named one of the 50 most important women in *Discover* Magazine. She is the recipient of the 2009 Benjamin Franklin Medal for Computer and Cognitive Sciences and the IEEE Robotics and the 2013 Automation Award for her contributions in the field of robotics and automation. Dr. Bajcsy was elected to the American Philosophical Society in 2005.

**Markus K. Brunnermeier**

*Speaker*

**Markus K. Brunnermeier**is the Edwards S. Sanford Professor of Economics at Princeton University and Director of Princeton's Bendheim Center for Finance. Dr. Brunnermeier received his Ph.D. in Economics from the London School of Economics (LSE). He is also a nonresident senior fellow at the Peterson Institute, a research associate at the National Bureau of Economic Research, the Centre for Economic Policy Research, CESifo, the Luohan Academy, ABFER, and a member of the Bellagio Group on the International Economy.

Dr. Brunnermeier’s research focuses on international financial markets and the macroeconomy with special emphasis on bubbles, liquidity, financial and monetary price stability, and digital money. Over the course of his career, he has worked to establish the concepts of: liquidity spirals, CoVaR as a measure of systemic risk, the Volatility Paradox, Paradox of Prudence, European Safe Bonds (ESBies), financial dominance, the redistributive monetary policy, the Reversal Rate, and Digital Currency Areas. His recent book *The Resilient Society* won the Prize for the 2021 best business book in German and was listed among best economics books by the *Financial Times*.

Dr. Brunnermeier is a Sloan Research Fellow, Fellow of the Econometric Society, Guggenheim Fellow, and the recipient of the Bernácer Prize granted for outstanding contributions in the fields of macroeconomics and finance. He is also a member of several advisory groups, including to the U.S. Congressional Budget Office, the Bank for International Settlements, and the Bundesbank, as well as previously to the International Monetary Fund, the Federal Reserve of New York, and the European Systemic Risk Board.

**Arthur der Weduwen**

*Speaker*

**Arthur der Weduwen**is a British Academy Postdoctoral Fellow at the University of St Andrews and Deputy Director of the Universal Short Title Catalogue. He received his Ph.D. from St Andrews in 2018.

Dr. der Weduwen is interested in cultural and political history, especially that of the early modern period (c. 1500-1800). His research focuses on the history of news, books, libraries, communication, and politics. Dr. der Weduwen’s current fellowship project, ‘The Culture of Catastrophe: The Dutch Republic and the Legacy of the Disaster Year, 1672-1748” will explore the devastation of the Dutch Republic in the summer of 1672, when that country was simultaneously attacked by an international alliance of four states, led by the King of France, Louis XIV.

Dr. der Weduwen has edited a volume on book catalogues in early modern Europe (2021), and is the author of five books, including *Dutch and Flemish Newspapers of the Seventeenth Century* (2017), *The Bookshop of the World: Making and Trading Books in the Dutch Golden Age* (2019, with Andrew Pettegree), and most recently, *The Library: A Fragile History* (2021, also with Andrew Pettegree).

**Wendy Fischman**

*Speaker*

**Wendy Fischman** joined Project Zero at the Harvard Graduate School of Education in 1995. Since then, she has managed various aspects of the GoodWork Project, a collection of research initiatives focused on the meaning of education and work in the lives of young children, adolescents, and novice professionals.

Since 2012, with Howard Gardner (APS, 2006), Ms. Fischman has led a large-scale national study of higher education and has written about education and human development in numerous scholarly and popular articles. She is the lead author of *The Real World of College: What Higher Education Is and What it Can Be* (2022) and *Making Good: How Young People Cope with Moral Dilemmas at Work* (2004). She is a graduate of Northwestern University.

**Julie Flavell**

*Speaker*

**Julie Flavell** is an Independent Historian and Fellow of the Royal Historical Society, Scotland. A graduate of Bryn Mawr College, she earned her Ph.D. in History from University College, London. Dr. Flavell has lectured in American history at Dundee and Edinburgh Universities, where she specialized in the American Revolutionary era.

Dr. Flavell’s research focuses primarily on the American Revolution, specifically, when and how Britons and Americans began to think of themselves as separate peoples. Her first book *When London was Capital of America* (2010) explores the period just before the American Revolution through the experiences of individual colonists in London, and shows that Americans still saw themselves as British - and were seen as such in their capital city - right up to the start of the American Revolution.

Her most recent publication *The Howe Dynasty: The Untold Story of a Military Family and the Women Behind Britain's Wars for America* (2021) follows the lives of the Howe family, many of whom were considered Anglo-American heroes by the end of the Seven Years’ War in 1763. The story of how, just twelve years later, their role in the American Revolution transformed them into foreigners in a land they had given their blood to defend is told powerfully through the medium of family history. *The Howe Dynasty* radically recasts the American War of Independence as a civil war by telling it through the eyes of the Howe women.

**Eric J. Horvitz**

*Member/Speaker*

**Eric J. Horvitz** is the Chief Scientific Officer at Microsoft. He received his Ph.D. and M.D. degrees at Stanford University and previously held the position of Director of Microsoft Research with research labs in Redmond, Washington; Cambridge, Massachusetts; New York City, New York; Montreal, Canada; Cambridge, UK; and Bangalore, India. In his current role, Dr. Horvitz provides cross-company leadership and perspectives on advances and trends on scientific matters, and on issues and opportunities rising at the intersection of technology, people, and society. He has pursued principles and applications of AI with contributions in machine learning, perception, natural language understanding, and decision making. His research centers on challenges with uses of AI amidst the complexities of the open world, including uses of probabilistic and decision-theoretic representations for reasoning and action, models of bounded rationality, and human-AI complementarity and coordination.

In addition to his work with Microsoft, Dr. Horvitz serves on the President’s Council of Advisors on Science and Technology (PCAST) and is a member of the Computer Science and Telecommunications Board (CSTB) of the National Academies. He has also served as a commissioner on the National Security Commission on AI where he chaired the line of effort on ethical and responsible AI, and as president of the AAAI, and on advisory committees for the National Science Foundation, National Institutes of Health, DARPA, and the Allen Institute for AI. Beyond his scientific work, Dr. Horvitz has pursued efforts and studies on the influences of AI on people and society, including issues around ethics, law, and safety. He founded and chairs Microsoft’s Aether committee on AI, effects, and ethics in engineering and research, and has established the One Hundred Year Study on AI at Stanford University and co-founded the Partnership on AI.

Dr. Horvitz’s efforts and collaborations have led to fielded systems in healthcare, transportation, ecommerce, operating systems, and aerospace. He received the Feigenbaum Prize and the Allen Newell Prize for contributions to AI, and the CHI Academy honor for his work at the intersection of AI and human-computer interaction. Dr. Horvitz has been elected fellow of the National Academy of Engineering (NAE), the Association of Computing Machinery (ACM), Association for the Advancement of AI (AAAI), the American Association for the Advancement of Science (AAAS), and the American Academy of Arts and Sciences. Dr. Horvitz was elected to the American Philosophical Society in 2018.

**Patricia K. Kuhl**

*Recipient, Karl Spencer Lashley Award*

The recipient of the 2021 Karl Spencer Lashley Award is **Patricia K. Kuhl** “in recognition of her fundamental discoveries concerning how human infants acquire language, and how brain structure and activity changes during language learning in both monolingual and bilingual children.” Dr. Kuhl is the Bezos Family Foundation Chair in Early Childhood Learning and Co-Director of the Institute for Learning and Brain Sciences at the University of Washington.

Dr. Kuhl is a preeminent leader in the investigation of language learning and bilingual brain development in human infants. She used behavioral techniques to examine the window of time when infants begin to distinguish native from non-native language sounds, and demonstrated that this transition in early speech perception predicts infants’ future language growth. She pioneered brain measures in young children during language learning, laying down fundamental metrics of how and when the infant brain responds to language sounds. Her astonishing findings include showing that the human auditory system begins losing sensitivity to sounds from non-native languages as early as 10 months of age. However, robust plastic changes can occur in infants’ language circuits if they experience immersive social exposure to a second language. Dr. Kuhl’s work has illuminated the behavioral, neurobiological, and social dimensions of language learning, in the process spurring subsequent generations of researchers to highly creative research in this critical field. She will be the first Lashley awardee recognized for work on human behavioral neuroscience since Marcus Raichle and Michael Posner in 1998.

The Karl Spencer Lashley Award was established in 1957 by a gift from Dr. Lashley, a member of the Society and a distinguished neuroscientist and neuropsychologist. His entire scientific life was spent in the study of behavior and its neural basis. Dr. Lashley’s famous experiments on the brain mechanisms of learning, memory and intelligence helped inaugurate the modern era of integrative neuroscience, and the Lashley Award recognizes innovative work that continues exploration in the field.

The members of the selection committee are William T. Newsome III (chair), Harman Family Provostial Professor, Vincent V. C. Woo Director of the Stanford Neurosciences Institute, Professor of Neurobiology and, by courtesy, of Psychology, Stanford University; John E. Dowling, Gordon and Llura Gund Research Professor of Neurosciences Emeritus, Harvard University; Catherine Dulac, Higgins Professor of Molecular and Cellular Biology, Lee and Ezpeleta Professor of Arts and Sciences, Harvard University, and Investigator for Howard Hughes Medical Institute; Ann M. Graybiel, Institute Professor, Department of Brain and Cognitive Sciences, Investigator, McGovern Institute for Brain Research, Massachusetts Institute of Technology; John G. Hildebrand, Regents Professor of Neuroscience, University of Arizona; Eric Knudsen, Sewell Professor of Neurobiology Emeritus, Stanford University School of Medicine; Edvard Moser, Professor of Neuroscience, Director, Kavli Institute for Systems Neuroscience, Norwegian University of Science and Technology; and Larry R. Squire, Distinguished Professor of Psychiatry, Neurosciences, and Psychology, University of California, San Diego, Research Career Scientist, Veterans Affairs Medical Center, San Diego.

**Vijay Kumar**

*Member/Session Organizer*

**Vijay Kumar** is the Nemirovsky Family Dean of Engineering at the University of Pennsylvania, with appointments in the Departments of Mechanical Engineering and Applied Mechanics, Computer and Information Science, and Electrical and Systems Engineering. He received his Bachelor of Technology from the Indian Institute of Technology, Kanpur and his Ph.D. from Ohio State University.

Dr. Kumar is the founder of Exyn Technologies and serves on the boards of Treeswift, IQ Motion Control, WeRobotics, and O2Micro. From 2012 to 2013, he also served as the assistant director of robotics and cyber physical systems at the White House Office of Science and Technology Policy.

Dr. Kumar is a Fellow of the American Society of Mechanical Engineers (ASME) and the Institute of Electrical and Electronic Engineers (IEEE). He is the recipient of the 2012 ASME Mechanisms and Robotics Award, the 2012 IEEE Robotics and Automation Society Distinguished Service Award, a 2012 World Technology Network (wtn.net) award, a 2013 *Popular Mechanics* Breakthrough Award, a 2014 Engelberger Robotics Award, the 2017 IEEE Robotics and Automation Society George Saridis Leadership Award, the 2017 ASME Robert E. Abbott Award, the 2018 IEEE Robotics and Automation Pioneer Award, and the 2020 IEEE Robotics and Automation Field Award. He was elected to the National Academy of Engineering in 2013, and the American Academy of Arts and Sciences in 2021. Dr. Kumar was elected to the American Philosophical Society in 2018.

**Indra K. Nooyi**

*Member/Speaker*

**Indra K. Nooyi** served as CEO and Chairman of PepsiCo from 2006 to 2019. Her prescient strategic thinking, insight into consumer behavior, and wisdom on managing a vast, global workforce make her one of the world’s most sought-after advisors to entrepreneurs, executives, and governments. She is also revered as a role model for women and immigrants, and celebrated for her empowering messages on inclusivity. At PepsiCo, Ms. Nooyi was the chief architect of Performance with Purpose, the company’s mission to deliver sustained growth by making more nutritious products, limiting the company’s environmental footprint, and empowering its associates and people in the communities it serves. Ms. Nooyi holds a bachelor’s degree in chemistry from Madras Christian College, a master’s degree in business administration from the Indian Institute of Management in Calcutta, and an additional master’s degree in public and private management from the Yale School of Management.

Ms. Nooyi is the author of the book, *My Life in Full: Work, Family and Our Future*, a memoir that offers insight and a call-to-action from one of the world’s most-admired business leaders on how our society can blend work and family — and advance women — in the 21st century.

Ms. Nooyi has been awarded the Padma Bhushan, India’s third-highest civilian honor, the U.S. State Department’s award for Outstanding American by Choice, and 15 honorary degrees. In 2021 she joined the Board of Trustees of the National Gallery of Art and has served as a Director of Amazon.com since 2019. Ms. Nooyi was also inducted into the Asian Hall of Fame and National Women’s Hall of Fame. She was elected to the American Philosophical Society in 2021.

**Andrew Pettegree**

*Speaker*

**Andrew Pettegree** is Professor of Modern History at the University of St Andrews and Director of the Universal Short Title Catalogue. Dr. Pettegree was educated at Oxford University, and has held Research Fellowships at the Universities of Hamburg and Cambridge before moving to St Andrews in 1986. In 1991 he was named the founding director of the St Andrews Reformation Studies Institute.

He is the author of over a dozen books in the fields of Reformation History and the History of Communication, including *Reformation and the Culture of Persuasion, The Book in the Renaissance* (2005)*, The Invention of News, Brand Luther: 1517, Print and the Making of the Reformation* (2014), *The Bookshop of the World. Making and Trading Books in the Dutch Golden Age* (2019, with Arthur der Weduwen) and, most recently, *The Library: A Fragile History* (2021, also with Arthur der Weduwen).

Dr. Pettegree has held visiting fellowships at All Souls College, Oxford, the Scaliger Institute at Leiden University, Netherlands, and at the Centre for Renaissance and Reformation Research at the University of Toronto. He is a former Vice-President of the Royal Historical Society.

**Jessica Riskin**

*Recipient, Patrick Suppes Prize in History of Science*

The recipient of the American Philosophical Society’s 2021 Patrick Suppes Prize in the History of Science is **Jessica Riskin**, Professor of History at Stanford University, in recognition of her book *The Restless Clock: A History of the Centuries-Long Argument over What Makes Living Things Tick*(University of Chicago Press, 2016).

In this ambitious and elegant book, Dr. Riskin argues that although the dominant understanding of mechanism is passive (even a clock must be wound up in order to tick), there is also a competing view of mechanism as active, enspirited, having its source of motion within it—to borrow a term from Liebniz, a “restless clock.” Mechanistic thinkers could empty nature of agency because God had set it all in motion. Yet the rise of naturalistic science left no place for divinity. Dr. Riskin traces the centuries-long struggle to banish agency from scientific explanation in favor of a passive view of nature’s machinery, while showing how this effort remained both incomplete and futile. In doing so, she boldly recasts the old vitalist-mechanist debate as a contradiction that grew out of the successive revolutionary ideas of the Reformation and Enlightenment. These were not mere abstractions; Dr. Riskin shows how the paradox became materialized, in automata, cells, robots, eggs, AI, and epigenetics. She makes a persuasive case that the early scientific attributions of action and purpose to God still haunt naturalistic explanations. No matter how rigorous and naturalistic, scientists still find the language of biological agency useful, even indispensable. In the end, as Dr. Riskin makes clear, the old tension between mechanism and purpose remains with us, and that is not a bad thing for science.

The Patrick Suppes Prize honors accomplishments in three deeply significant scholarly fields, with the prize rotating each year between philosophy of science, psychology or neuroscience, and history of science. The history of science prize is awarded for an outstanding book in history of science appearing within the preceding six years. The works considered for the prize are restricted to works that emphasize detailed analysis of important systematic findings in any branch of science, ancient or modern, using quantitative and mathematical methods.

The selection committee was Ruth Schwartz Cowan (chair), Janice and Julian Bers Professor Emerita, History and Sociology of Science, University of Pennsylvania; Babak Ashrafi, President, Chief Executive Officer, Consortium for History of Science, Technology and Medicine; Mahzarin R. Banaji, Richard Clarke Cabot Professor of Social Ethics, Department of Psychology, Harvard University; Angela N. H. Creager, Thomas M. Siebel Professor in the History of Science, Chair, Department of History, Princeton University; Noel M. Swerdlow, Professor Emeritus of Astronomy and Astrophysics and of History, University of Chicago, Visiting Professor, California Institute of Technology; Susan Wolf, Edna J. Koury Distinguished Professor of Philosophy, University of North Carolina at Chapel Hill; Harriet Zuckerman, Professor of Sociology Emerita, Columbia University; and the committee was put together by Richard Shiffrin, Distinguished Professor, Luther Dana Waterman Professor, Professor of Psychology and Cognitive Science, Indiana University.

**Martine Rothblatt**

*Member/Speaker*

**Martine Rothblatt** is the Chairperson & CEO of United Therapeutics Corporation (UT), a corporation she started to save her youngest child's life from a rare illness. Dr. Rothblatt earned her Ph.D. in Medical Ethics from the Royal London College of Medicine and Dentistry after earning JD and MBA degrees from UCLA, which also recently awarded her the UCLA Medal, its highest honor.

Her company (UT) is now saving hundreds of lives a year with medicines for pulmonary hypertension and neuroblastoma, and by restoring otherwise discarded donor lungs to transplantability. UT is also in clinical development of manufactured kidneys, hearts and lungs to be delivered via autonomously flown electric vertical takeoff and landing (eVTOL) systems.  Dr. Rothblatt led the efforts to create the first genetically-modified porcine hearts and kidneys transplanted into humans (xenotransplantation), resulting in a life-extending xeno-heart transplant in January 2022.

In addition to her contributions to medical science, Dr. Rothblatt is also responsible for creating SiriusXM satellite radio and other satellite communications systems. She is pursuing innovations in aviation and architecture, including the design and piloting of an electric helicopter, and the creation of the world's largest zero carbon footprint building. She is an inventor holding several patents, and an author of several books, the most recent of which pertains to artificial cognition and cyber-consciousness. Dr. Rothblatt was elected to the American Philosophical Society in 2008.

**S. Shankar Sastry**

*Speaker*

**S. Shankar Sastry** is the former Dean of Engineering and Faculty Director of the Blum Center of Developing Economies at the University of California, Berkeley. He is currently on the corporate boards of C3 IoT, HCL Technologies and Lexmark and is the Chair of the Scientific Advisory Board of Eriksholm, the research arm of Oticon. Dr. Sastry received his Ph.D. from UC, Berkeley and taught for several years on the faculty of MIT and at Harvard University as a chaired Gordon McKay professor. He has received honorary doctorates from the Royal Institute of Technology, Stockholm, University of Waterloo, Canada, and the Politecnico di Torino and an M.A. Honoris Causa from Harvard.

Dr. Sastry previously served as the Director of the Center for Information Technology in the Interests of Society (2005-2008) and was Chairman of the Department of Electrical Engineering and Computer Sciences (2001-2005). He was the Director of the Information Technology Office at DARPA (with the equivalent military rank of a Major General) from 1999-2001.  From 1996–1999, he was the Director of the Electronics Research Laboratory at Berkeley, an organized research unit on the Berkeley campus conducting research in computer sciences and all aspects of electrical engineering. His areas of research are embedded and autonomous software, AI, robotics, computer vision, nonlinear and adaptive control and learning, robotic vehicles in the air, ground and underwater, control of hybrid systems, robotic surgery, and biological motor control and prosthetics.

Dr. Sastry has coauthored over 550 technical papers and 10 books, including *Adaptive Control: Stability, Convergence, and Robustness* (1989, with M. Bodson), *A Mathematical Introduction to Robotic Manipulation* (1994, with R. Murray and Z. Li), and *Generalized Principal Component Analysis* (2016, with R. Vidal and Yi Ma). He has co-edited *Hybrid Control II, Hybrid Control IV and Hybrid Control V* (with P. Antsaklis, A. Nerode, and W. Kohn, 1995, 1997, and 1999, respectively) and co-edited *Hybrid Systems: Computation and Control* (1998, with T.Henzinger) and *Essays in Mathematical Robotics*(with Baillieul and Sussmann, Springer-Verlag IMA Series).

Dr. Sastry was elected into the National Academy of Engineering in 2001 and has also received the President of India Gold Medal in 1977, the IBM Faculty Development award for 1983–1985, the NSF Presidential Young Investigator Award in 1985 and the Eckman Award of the of the American Automatic Control Council in 1990. He is a Fellow of the American Academy of Arts and Sciences.  He received the Distinguished Alumnus Award from the International House at Berkeley in 2017 and the Berkeley Citation in 2018 and has received the Chang-Lin Tien Education Leadership Award from the Asia Pacific Fund in 2010.

**Amartya Sen**

*Member/Speaker*

**Amartya Sen** is the Thomas W. Lamont University Professor, and Professor of Economics and Philosophy, at Harvard University and Senior Fellow at the Harvard Society of Fellows. He has also held the position of Master of Trinity College, Cambridge, from 1998-2004 and was Professor of Economics at Jadavpur University Calcutta, the Delhi School of Economics, the London School of Economics, and Drummond Professor of Political Economy at Oxford University. Dr. Sen holds undergraduate degrees from both Presidency College, Calcutta, and Trinity College, Cambridge, and earned his Ph.D. from Trinity College.

His research has ranged over social choice theory, economic theory, ethics and political philosophy, welfare economics, theory of measurement, decision theory, development economics, public health, and gender studies. Dr. Sen’s books have been translated into more than thirty languages, and include *Choice of Techniques* (1960), *Growth Economics* (1970), *Collective Choice and Social Welfare* (1970), *On Economic Inequality* (1973, 1997); *Poverty and Famines* (1981);  *Utilitarianism and Beyond* (1982, jointly with Bernard Williams); *Choice, Welfare and Measurement* (1982),  *Commodities and Capabilities* (1985), *The Standard of Living* (1987), *On Ethics and Economics* (1987); *Hunger and Public Action* (1989, jointly with Jean Drèze); *Inequality Re-examined* (1992); *The Quality of Life* (1993, jointly with Martha Nussbaum);  *Development as Freedom* (1999); *Rationality and Freedom* (2002); *The Argumentative Indian* (2005); *Identity and Violence: The Illusion of Destiny* (2006), *The Idea of Justice* (2009), *An Uncertain Glory: India and Its Contradictions* (2013, jointly with Jean Drèze), *The Country of First Boys* (2015) and his most recent book: *Home in the World: A Memoir* (2022).

Dr. Sen has served as President of the Econometric Society, the American Economic Association, the Indian Economic Association, and the International Economic Association. He was formerly Honorary President of OXFAM and is now its Honorary Advisor. He won the Nobel Prize in Economics in 1998 and was elected to the American Philosophical Society in 1997.

**Mark J. Thompson**

*Member/Speaker*

**Mark Thompson** is a British media executive and now Chair of the Board of Director of Ancestry, the largest for-profit genealogy company in the world. Just prior to assuming his current role, he served as President and CEO of *The New York Times* Company from 2012, stepping down in the summer of 2020. He was responsible for leading the *Times'* strategy, operations and business units, and working closely with the chairman to direct the vision of the company. Mr. Thompson was instrumental in accelerating the pace of *The Times’* digital transformation. Under his leadership, *The Times* became the first news organization in the world to pass the one million digital-only subscription mark. The company also introduced a new era of international growth, launched an industry leading branded content studio and invested in virtual reality, producing some of the most celebrated work in this emerging medium.

Before leading the *Times* Company, Mr. Thompson joined the BBC in 1979 as a production trainee. He helped launch *Watchdog* and *Breakfast Time*, was an output editor on *Newsnight*, and was appointed editor of the *Nine O'Clock News* in 1988 and of *Panorama* in 1990. He became controller (programming and scheduling chief) for BBC2 and Director of Television for the BBC before leaving the BBC in 2002 to become CEO of Channel 4 Television Corporation in the United Kingdom. Mr. Thompson later served as Director-General of the BBC from 2004, where he reshaped the organization to meet the challenge of the digital age, ensuring that it remained a leading innovator with the launch of services such as the BBC iPlayer. He also oversaw a transformation of the BBC itself, driving productivity and efficiency through the introduction of new technologies and bold organizational redesign.

Mr. Thompson’s book, *Enough Said: What’s Gone Wrong with the Language of Politics?,* which is based on lectures he gave as a visiting professor of Rhetoric and the Art of Public Persuasion at the University of Oxford, was published in the UK and US in September 2016. Mark Thompson was educated at Stonyhurst College and Merton College, Oxford, and was elected to the American Philosophical Society in 2017.

**Zhu Wang**

*Artist*

**Zhu Wang** is a graduate of the Music Middle School Affiliated to the Shanghai Conservatory of Music, where he studied with Zhe Tang, and Fou Ts’ong. He received a Bachelor of Music degree from The Juilliard School, where he was also the recipient of the Gina Bachauer and Mieczyslaw Munz Scholarship. Mr. Wang is currently pursuing his post-baccalaureate diploma at Curtis Institute of Music, under the tutelage of Robert McDonald.

Praised as “especially impressive” and “a thoughtful, sensitive performer” who “balanced lyrical warmth and crisp clarity” (Tommasini – New York Times), Mr. Wangwas awarded First Prize in the 2020 Young Concert Artists International Auditions. He is also the first prize winner of the 2nd Zhuhai International Mozart Competition for Young Musicians, 4th Manhattan International Music Competition, Hilton Head Young Artist Piano Competition, and the Juilliard Gina Bachauer International Scholarship Piano Competition, and was a recipient of the Juilliard Mieczyslaw Munz Scholarship. In 2019, he was one of three finalists in the Clara Haskil International Piano Competition, and has been a featured soloist on WQXR’s Young Artist Showcase and WFMT’s Dame Myra Hess Memorial Concerts. Celebrated for his “technical mastery and deep sense of lyricism,” (The Durango Herald), this season Mr. Wang made his debuts at Carnegie’s Zankel Hall and Kennedy Center’s Terrace Theater. His New York debut made the New York Time’s “Best of Classical Music 2021” list.

Mr. Wang has performed all over the world, including in China, Italy, Poland, Japan, and across the U.S. at prestigious venues including the Kennedy Center for the Performing Arts, Weill Recital Hall at Carnegie Hall, Kammermusiksaal of Berliner Philharmonie, Warsaw Philharmonic Concert Hall, Shanghai Concert Hall, Chicago Cultural Center, and The Morgan Library. An active chamber musician and champion of new music, he also performed the world premiere of American composer Timo Andres’s *Moving Etúdes* on his national tour.

**Duncan J. Watts**

*Speaker*

**Duncan J. Watts** is the Stevens University Professor and twenty-third Penn Integrates Knowledge University Professor at the University of Pennsylvania. In addition to his appointment at the Annenberg School, he holds faculty appointments in the Department of Computer and Information Science in the School of Engineering and Applied Science, and the Department of Operations, Information and Decisions in the Wharton School, where he is the inaugural Rowan Fellow. Dr. Watts holds a B.Sc. in Physics from the Australian Defense Force Academy, from which he also received his officer’s commission in the Royal Australian Navy, and a Ph.D. in Theoretical and Applied Mechanics from Cornell University.

Before coming to Penn, Dr. Watts was a principal researcher at Microsoft Research (MSR) and a founding member of the MSR-NYC lab. He was also an AD White Professor at Large at Cornell University. Prior to joining MSR in 2012, he was a professor of Sociology at Columbia University, and a principal research scientist at Yahoo! Research, where he directed the Human Social Dynamics group.

He is the author of three books: *Six Degrees: The Science of a Connected Age* (2003), *Small Worlds: The Dynamics of Networks between Order and Randomness* (1999), and *Everything is Obvious: Once You Know The Answer* (2011).

Dr. Watts’ research on social networks and collective dynamics has appeared in a wide range of journals, from *Nature, Science, and Physical Review Letters to the American Journal of Sociology* and *The Harvard Business Review*. He has been recognized by the 2009 German Physical Society Young Scientist Award for Socio and Econophysics, the 2013 Lagrange-CRT Foundation Prize for Complexity Science, and the 2014 Everett M. Rogers Award. Dr. Watts was named an inaugural fellow of the Network Science Society in 2018 and a Carnegie Fellow in 2020.