



## From Molecular Insights to Patient Stratification for Neurological and Psychiatric Disorders—A Virtual Workshop October 5-6, 2021

## Planning Committee Member Biographical Sketches

Steven Hyman, M.D. (Workshop Co-Chair), is Director of the Stanley Center for Psychiatric Research at the Broad Institute of Harvard and MIT, a Core Faculty Member of the Broad Institute, and Harvard University Distinguished Service Professor of Stem Cell and Regenerative Biology. From 2001 to 2011, he served as Provost of Harvard University, the University's chief academic officer. As Provost he had a special focus on development of collaborative initiatives in the sciences and engineering spanning multiple disciplines and institutions. From 1996 to 2001, he served as director of the US National Institute of Mental Health (NIMH), where he emphasized investment in neuroscience and emerging genetic technologies. He also initiated a series of large practical clinical trials, including an emphasis on children, a population about which little was known.

Dr. Hyman is the editor of the Annual Review of Neuroscience, founding President of the International Neuroethics Society (2008-2014), and President (2015) of the Society for Neuroscience, the leading professional organization for neuroscientists with approximately 40,000 members. He is a member of the National Academy of Medicine, of the U.S. National Academies of Sciences, Engineering, and Medicine, where he serves on the governing Council, the Board of Health Science Policy, and chairs the Forum on Neuroscience and Nervous System Disorders, which brings together industry, government, academia, patient groups, and foundations. He is a fellow of the American Academy of Arts and Sciences, a fellow of the American Association for the Advancement of Science, a fellow of the American College of Neuropsychopharmacology, and a Distinguished Life Fellow of the American Psychiatric Association.

Dr. Hyman received his BA summa cum laude from Yale College, a BA and MA from the University of Cambridge, which he attended as a Mellon fellow, and an MD cum laude from Harvard Medical School.

Dimitri Krainc, M.D., Ph.D. (Workshop Co-Chair), currently serves as the Aaron Montgomery Ward Professor and Chairman of the Department of Neurology and Director of the Center for Neurogenetics at Northwestern University, Feinberg School of Medicine. Previously, Dr. Krainc spent more than 20 years at Harvard Medical School where he completed his research and clinical training and served on the neurology faculty at Massachusetts General Hospital and Harvard Medical School until 2013 when he relocated to Chicago. Informed by genetic causes of disease, his lab has studied converging mechanisms across different neurodegenerative disorders that have led to the development of targeted therapies and innovative clinical trials. His group has made impactful contributions to the understanding of Huntington's disease pathogenesis that led to novel therapeutic strategies (Science, 2002; Cell, 2004; Cell 2006; Cell, 2009, Nature Medicine, 2011). They discovered a mechanism that links Parkinson's (PD) and Gaucher's diseases via lysosomal glucocerebrosidase (Cell, 2011) that led to development of targeted therapeutics (Science Translational Medicine, 2019). His team also uncovered novel converging lysosomal and mitochondrial mechanisms in various forms of PD that were observed only in human neurons, but not in mouse models (Science, 2017), providing a platform for improved translation of preclinical studies in PD. Their recent discovery of direct contacts between mitochondria and lysosomes (Nature, 2018) has fundamental

implications for elucidating the role of organelle dynamics in physiological and pathological cellular functions. His work is currently funded by the Javits Award, as well as several other NIH and foundation grants.

Eline Appelmans, M.D., M.P.H., BMedSci, is the Director of Neuroscience Research Partnerships at the Foundation for the National Institutes of Health. In her role, Dr. Appelmans leads the Neuroscience portfolio and team. She works in coordination with the NIH, non-profit, industry leaders, and FNIH project leads on the implementation of the Accelerating Medicines Partnership (AMP) for Alzheimer's Disease (AMP-AD), AMP Parkinson's Disease (AMP-PD), Disease Neuroimaging Initiative 3 Private Partner Scientific Board (ADNI3 PPSB) and the Biomarkers Consortium Neuroscience Steering Committee (BC NSC), and other projects in development. Directly managing AMP-AD and AMP-PD. Prior to joining the FNIH team, Dr. Appelmans worked for 3.5 years at Fred Hutchinson Cancer Research Center in Seattle WA, specializing in biostatistics, bioinformatics, and epidemiology related to Vaccine and Infectious Diseases. Dr. Appelmans also spent time working at Beaumont Hospital Ireland in Colorectal and General Surgery as well as Gynecology, Urology, Infectious Diseases, and Stroke, and Geriatric Medicine. Dr. Appelmans received her Master's in Public Health from University of Washington and her Medical Degree and associated Bachelors in Medical Science from the Royal College of Surgeons in Ireland.

**Paola Arlotta, Ph.D.,** is the Chair and Golub Family Professor of Harvard's Department of Stem Cell and Regenerative Biology. She is also Associate Member of the Stanley Center for Psychiatric Research at the Broad Institute. Collectively, the Arlotta lab research program explores the interface between development and engineering of the neocortex, to gain fundamental understanding of both the principles that govern normal cortical development and of previously-inaccessible mechanisms of human neurodevelopmental disease. The lab is working to understand and model complex human cortical pathology, focusing on the development of new high-throughput in vitro models of human cortical development and neurodevelopmental disease using 3D cerebral organoids. Dr. Arlotta received her M.S. in biochemistry from the University of Trieste, Italy, and her Ph.D. in molecular biology from the University of Portsmouth in the UK. She subsequently completed her postdoctoral training in neuroscience at Harvard Medical School. She has won numerous awards including most recently the Friedrich Wilhelm Bessel Award, George Ledlie Prize, the Fannie Cox Prize, and a Harvard College Professorship. Her research has been published in and widely cited in many noteworthy journals including Nature, Science, Neuron, and Cell Reports.

Linda Brady, Ph.D., serves as the Director of the Division of Neuroscience and Basic Behavioral Science at the National Institute of Mental Health (NIMH). In this role, she provides scientific, programmatic, and administrative leadership for an extramural research program portfolio in basic neuroscience to support NIMH's mission of transforming the understanding and treatment of mental illnesses. Dr. Brady has directed programs in neuropharmacology, drug discovery, and clinical therapeutics and organized Consortia focused on ways to accelerate the development and clinical application of radiotracers in clinical research. She has provided leadership for the National Cooperative Drug/Device Discovery/Development Groups for the Treatment of Mental Disorders and First in Human and Early Stage Clinical Trials of Novel Investigational Drugs or Devices for Psychiatric Disorders initiatives. Dr. Brady serves as co-chair of the Neuroscience Steering Committee of the Biomarkers Consortium, a public-private research partnership of the Foundation for the National Institutes of Health (FNIH) that focuses on discovery, development, and qualification of biological markers to support drug development, preventive medicine, and medical diagnostics. She serves as co-chair of the Steering Committee for the Accelerating Medicines Partnership – Schizophrenia, a public-private partnership to generate tools to improve success in developing early stage interventions for patients

who are at risk of developing schizophrenia. She is also a member of the National Academies Forum on Drug Discovery, Development, and Translation. Dr. Brady was trained in pharmacology and neuroscience. She completed her Ph.D. at Emory University School of Medicine, followed by post-doctoral work and research positions at the Uniformed Services University of the Health Sciences and the NIMHIntramural Research Program. She is the author of more than 70 peer reviewed scientific publications and is a member of the Society for Neuroscience and a Fellow and President of the American College of Neuropsychopharmacology. Dr. Brady has received NIH Director's Awards and NIH Merit Awards in recognition of her activities in biomarker development and drug development for mental disorders.

Bradford Casey, Ph.D., serves as Senior Associate Director of the Michael J. Fox Foundation's Research Programs division and leads the Foundation's Genomics and Data Science research portfolios. Dr. Casey manages diverse grant projects and programs, working with other Foundation scientists to manage a broader scientific portfolio and develop the Foundation's research strategy to support transformative research in Parkinson's disease. He engages with key experts across disciplines to identify and develop new approaches to address gaps in the field, establishes strategic partnerships to support critical research, and aligns the field around critical challenges to serve the needs of patients. Dr. Casey also serves as a steering committee member and scientific liaison to the Global Parkinson's Genetics Program (GP2), an ambitious partnership to expand global understanding of the diverse genetic architecture of PD, and the Accelerating Medicines Partnership for Parkinson's disease (AMP-PD), a public-private consortium focused on leveraging strengths of federal, academic, and industry partners to develop shared research tools and resources for the biomedical research community. He has published numerous scientific articles, and has provided presentations on scientific, strategic, and research advocacy efforts at domestic and international conferences. Dr. Casey received his Ph.D. in Neuroscience, conducting his doctoral and postdoctoral research at the University of Texas Southwestern Medical Center with a focus on developing and applying novel and emerging computational, analytic, and sequencing technologies to address fundamental questions in neuroscience.

Carole Ho, M.D., is the Chief Medical Officer and Head of Development at Denali Therapeutics, Inc. Carole has built an integrated development organization that is responsible for advancing therapeutic candidates from IND enabling toxicology through Phase 1 to Phase 3 testing. Under Carole's leadership, Denali has advanced more than five programs into clinical development since Denali's founding in 2015 across therapeutic areas including Rare Disease, Parkinson's disease, Alzheimer's disease, and ALS. Carole previously served as Vice President of Genentech Early Clinical Development and was responsible for delivery of pivotal trial-ready drug candidates in Neurology, Ophthalmology, Immunology, and Infectious Disease. During her 8-year tenure at Genentech, Carole held roles with leadership responsibility across multiple early- and late-stage clinical programs including Rituxan® for Wegener's granulomatosis and microscopic polyangiitis and ocrelizumab for Multiple Sclerosis. At Genentech, in collaboration with Banner Health, Carole's team led the initiation of the world's first prevention trial in Alzheimer's disease in participants at risk for dementia due to a genetic mutation. Carole completed her residency in Neurology at Harvard Medical School at the Massachusetts General Hospital / Brigham and Women's Hospital, where she also served as Chief Resident. She obtained her M.D. from Cornell University and S.B. in Biochemical Sciences from Harvard College. Prior to her Industry career, Carole was on Faculty in the Department of Neurology at Stanford University. Carole currently serves on the Board of Directors of Beam Therapeutics, NGM Therapeutics, and Target ALS.

Frances Jensen, M.D., is Professor of Neurology and Chairman of Neurology at the Perelman School of Medicine, University of Pennsylvania, and Co-Director of Penn Translational Neuroscience Center. She was formerly Professor of Neurology, Harvard Medical School, Director of Translational Neuroscience and senior neurologist at Boston Children's Hospital and Brigham and Women's Hospital. She is a graduate of Cornell Medical College and obtained her neurology residency training at the Harvard Longwood Neurology Residency Program. Her research focuses on mechanisms of epilepsy and stroke, and the mechanistic interaction of epilepsy with other disorders such as autism and dementia, with specific emphasis on elucidating new therapies for clinical trials development. Dr. Jensen received the 2007 Director's Pioneer Award from the NIH to explore the interaction between epileptogenesis and cognitive dysfunction, and was elected as a member of the National Academy of Medicine in 2015. Dr. Jensen was President of the American Epilepsy Society in 2012 and has served on a number of other leadership boards including the Council for the Society for Neuroscience and the Council at NICHD. She currently serves on the Board of the American Neurological Association, the scientific advisory panel at NIH for the BRAIN Initiative, and on a number of charitable foundations for neuroscience research. She has authored over 150 manuscripts on subjects related to her research and has been continuously funded by NIH since 1987. Dr. Jensen has trained numerous clinical and basic research fellows who now hold independent faculty positions nationally and internationally. Dr. Jensen is a Trustee of the Franklin Institute in Philadelphia and is involved in community outreach for brain research and education. In addition, Dr. Jensen is an advocate for awareness of the adolescent brain development, its unique strengths and vulnerabilities, as well as their impact on medical, social, and educational issues unique to teenagers and young adults, and author of the book "The Teenage Brain", released by Harper Collins in 2015/16, translated and published in over 25 languages worldwide.

**Bill Martin, Ph.D.,** is the Global Therapeutic Area Head of Neuroscience for Janssen Research & Development. Dr. Martin brings a diverse background and more than 20 years of demonstrated success in neuroscience R&D leadership to the scientific community. His experience spans drug discovery and development, scientific and business strategy, as well as company formation and growth. At Janssen, Dr. Martin has end-to-end responsibility for the neuroscience R&D portfolio from discovery, translational medicine, biomarkers and to clinical development. Prior to Janssen, Dr. Martin co-founded Blackthorn Therapeutics where he held positions of increasing responsibility, from Chief Scientific Officer and Head of R&D to President and CEO. He began his career at Merck and later joined Theravance Biopharma where he held multiple leadership positions across all aspects of Neuroscience R&D.

Dr. Martin has served on numerous Boards of Directors and Advisory Councils, including those of BlackThorn Therapeutics, the Alliance for Artificial Intelligence in Healthcare and Brown University's Carney Institute for Brain Science. He has held leadership positions in the Society for Neuroscience, the American Physiological Society and the International Brain Research Organization and has published extensively, with more than 75 publications in scientific journals. He graduated from Swarthmore College, earned a Ph.D. from Brown University, and conducted postdoctoral research at the Keck Center for Integrative Neuroscience at the University of California, San Francisco.

John Ngai, Ph.D., is the Director of the NIH's Brain Research through Advancing Innovative Neurotechnologies (BRAIN®) Initiative. Dr. Ngai earned his bachelor's degree in chemistry and biology from Pomona College, Claremont, California, and PhD in biology from the California Institute of Technology (Caltech) in Pasadena. He was a postdoctoral researcher at Caltech and at the Columbia University College of Physicians and Surgeons before starting his faculty position at the University of California at Berkeley. During more than 25 years as a Berkeley faculty member, Dr. Ngai has trained 20 undergraduate students, 24 graduate students and 15 postdoctoral fellows in addition to teaching well over 1,000 students in the classroom. His work has led to the publication of more than 70 scientific articles in some of the field's most prestigious journals and 10 U.S. and international patents. Dr. Ngai has received many awards including from the Sloan Foundation, Pew Charitable Trusts, and McKnight Endowment Fund for Neuroscience. As a faculty member, Dr. Ngai has served as the director of Berkeley's Neuroscience Graduate Program and Helen Wills Neuroscience Institute. He has also provided extensive service on NIH study sections, councils and steering groups, including as previous co-chair of the NIH BRAIN® Initiative Cell Census Consortium Steering Group. Dr. Ngai will oversee the long-term strategy and day-to-day operations of the NIH BRAIN Initiative as it takes on the challenges of the next five year plan.

**Amir Tamiz, Ph.D.,** is the Associate Director at National Institute of Neurological Disorders and Stroke (NINDS) and the Director of the Division of Translational Research (DTR). Dr. Tamiz joined NINDS in 2012 and assumed leadership role for the NIH Blueprint Neurotherapeutics network (BPN) and Innovation Grants to Nurture Initial Translational Efforts (IGNITE) program. Blueprint Neurotherapeutics network is a collaborative effort among 15 of the NIH institutes and centers, leveraging their resources to offer neuroscience researchers funding for drug discovery and development activities to confront major, cross-cutting challenges in neuroscience. The program has established an efficient pipeline between academia and industry advancing many projects from chemical optimization to Phase I clinical testing. Dr. Tamiz envisioned and launched the IGNITE program in 2014 which has created a contiguous source of support from discovery to preclinical development. IGNITE covers a suite of funding programs spanning assay development and therapeutic agent identification and characterization, pharmacodynamics and In vivo efficacy studies, and development and validation of translational model systems for drug discovery.

Prior to joining NIH, Dr. Tamiz had held scientific and management positions in research and development of therapeutic programs at Corvas International (acquired by Dendreon), CovX (now part of Pfizer), and Alba Therapeutics. Dr. Tamiz received his Ph.D. at University of Oregon and conducted postdoctoral research at the Department of Neuroscience at Georgetown University Medical Center.

**Sarah Tishkoff, Ph.D.,** is the David and Lyn Silfen University Professor in Genetics and Biology at the University of Pennsylvania, holding appointments in the School of Medicine and the School of Arts and Sciences. She is also the Director of the Penn Center for Global Genomics & Health Equity in the Department of Genetics. Dr. Tishkoff studies genomic and phenotypic variation in ethnically diverse Africans. Her research combines field work, laboratory research, and computational methods to examine African population history and how genetic variation can affect a wide range of practical issues – for example, why humans have different susceptibility to disease, how they metabolize drugs, and how they adapt through evolution. Dr. Tishkoff is a member of the National Academy of Sciences and a recipient of an NIH Pioneer Award, a David and Lucile Packard Career Award, a Burroughs/Wellcome Fund Career Award, the ASHG Curt Stern award, and a Penn Integrates Knowledge (PIK) endowed chair. She is on the NAS Board of Global Health and the scientific advisory board for the Packard Fellowships in Science and Engineering, and is on the editorial boards at Cell, PLOS Genetics, Genome Research and G3 (Genes, Genomes, and Genetics). Her research is supported by grants from the National Institutes of Health, the National Science Foundation, the Chan Zuckerberg Institute, and the American Diabetes Association.

**Stacie Weninger, Ph.D.**, is the President of FBRI. Prior to this position, she was the Senior Director of Science Programs for the Fidelity Foundations. In 2005, Dr. Weninger served as the Project Manager

and Senior Analyst for the Task Force on Women in Science at Harvard University. From 2001-2005, Dr. Weninger was a Senior Scientist at Cell Press for the journal Neuron. Before joining Cell Press, Dr. Weninger was a postdoctoral research fellow at Children's Hospital Boston and Harvard Medical School with Dr. Bruce Yankner. She was a Howard Hughes Medical Institute predoctoral fellow in the Program in Neuroscience at Harvard University. While a graduate student and postdoctoral research fellow, Dr. Weninger was actively involved in undergraduate teaching, winning six teaching awards. Dr. Weninger received a Ph.D. in neuroscience from Harvard University, and a B.S. degree in chemistry with highest honors from the University of North Carolina, Chapel Hill. She currently chairs the Collaboration for Alzheimer's Prevention; is President of Alzforum; serves as Chairman of the Board of Directors for Rugen Therapeutics; serves as a member of the Board of Directors for Aratome, Atalanta, Eikonizo, RBNC, Sironax, and Target ALS; and serves as a member of the Scientific Advisory Boards for Denali Therapeutics, the Indian Institute of Science's Centre for Brain Research and the UK Dementia Research Institute. She previously served as a founding member of the Board of Directors for Denali Therapeutics (NASDAQ: DNLI); as well as a member of the Board of Directors for Annexon Biosciences (NASDAQ: ANNX), BRI-Alzan (acquired by MeiraGTx), Digital Cognition Technologies (acquired by Linus Health), Enspectra, Inscopix, Syllable Life Sciences (acquired by RBNC), and Q-State Biosciences.

Alice Zhang, is the CEO and Co-founder of Verge Genomics. Alice has been named a Forbes 30 Under 30 Featured Honoree, MIT Technology Review's Innovator Under 35, and SF Business Times' 40 Under 40. Prior to Verge, she spent seven years at the forefront of systems biology research at the National Cancer Institute, the Lewis-Sigler Institute for Integrative Genomics at Princeton University, and UCLA. She spent five years in the UCLA-Caltech MD/PhD program, where she helped author several papers on gene networks involved in neuroregeneration. Alice received her bachelor's degree from Princeton University in Molecular Biology and was a recipient of the prestigious Paul & Daisy Soros Fellowship for New Americans. In her spare time, Alice also is an angel investor and advisor for startups at the intersection of technology and biology.