Precision Medicine in Neuroscience: Tools, Translation, and Implementation: A Workshop

Committee

Rosa Canet-Avilés

Co-Chair

Rosa Canet-Aviles, Ph.D. is the Vice President of Scientific Programs at CIRM and leads a team that actively works towards identifying the most promising basic and early stage research in stem cells and other areas related to regenerative medicine and enabling their success. Under her leadership, the Scientific Programs team manages a portfolio of hundreds of active programs that include basic mechanistic research, discovery, exploratory research, and identification of potential candidates for translational development. Rosa is also responsible for the education and training programs as well as the internal and external collaborative networks and consortia that will result from the early-stage scientific programs managed by this group. Together with the rest of the leadership team, Rosa is responsible for the strategic alignment and connectivity with other CIRM programs (e.g., clinical networks, knowledge and data networks, registries, educational and communication portals) with the ultimate goal of translating all these efforts into cures. Rosa brings nearly two decades of experience developing and leading multi-stakeholder initiatives across biopharma, government and nonprofit organizations. In her recent role as the Director of Strategic Alliances at the Eisai Center for Genetics Guided Dementia Discovery (G2D2), as part of the leadership team at G2D2, Rosa was responsible amongst other for the strategic planning of alliances and external innovation partnerships in the neurobiology business unit. As such, Rosa was instrumental in driving growth to the organization through the identification and management of external innovation opportunities. During the previous 7 years, Rosa was the Director of Neuroscience Research Partnerships at the Foundation for the National Institutes of Health (FNIH), Rosa was responsible for the development and management of the Neuroscience Research Partnership portfolio of projects and programs that includes: the Accelerating Medicines Partnership (AMP) for Alzheimer’s Disease (AMP-AD) 1 and 2, AMP Parkinson’s Disease (AMP-PD), AMP Schizophrenia (AMP SCZ), the Alzheimer’s Disease Neuroimaging Initiative 3 (ADNI3) and the Biomarkers Consortium Neuroscience Steering Committee (BC NSC). Rosa managed different teams in coordination with NIH, FDA, non-profit organizations and industry leaders. Rosa earned her PhD degree in neuroscience from the School of Medicine at Leeds University, UK. She also holds a BS in organic chemistry from the Central University of Barcelona.

Gayle Wittenberg

Co-Chair

Gayle Wittenberg, Ph.D. is Vice President of Precision Measures, Neuroscience Research & Development at Johnson & Johnson Innovative Medicine, where she provides strategic and operational leadership for measurement, biomarkers, and data-driven decision-making across the neuroscience pipeline. Previously, she served as Vice President Neuroscience Data Science & Digital Health at Janssen R&D, where she built and led a multidisciplinary organization spanning molecular & discovery, digital, clinical biomarkers and real-world evidence. Dr. Wittenberg's expertise lies at the intersection of neuroscience, data science and precision medicine, with a particular focus on how quantitative measurement, computational models and digital and biological markers can enable actionable clinical decisions. Her work has emphasized translating emerging tools into scalable, decision-grade approaches for neurological and psychiatric disorders, while addressing practical challenges related to validation, workflow and adoption. She has received multiple leadership and innovation awards in industry and has served on scientific review panels and advisory committees spanning neuroscience, data science and translational research. Dr. Wittenberg earned her PhD in molecular biology and neuroscience from Princeton University following undergraduate training in physics and engineering at Oregon State University.

Linda S. Brady

Member

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 (AMP® SCZ), 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 a member of the National Academies Forum on Neuroscience and Nervous System Disorders. 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 NIMH Intramural 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 Past President of the American College of Neuropsychopharmacology. Dr. Brady has received NIH Director's Awards in recognition of her activities in biomarker development, public-private partnerships, drug development for mental disorders, collaboration and leadership of AMP® SCZ, and a National Alliance on Mental Illness Distinguished Service Award.

Laura Bustamante

Member

Laura Ana Bustamante, Ph.D. is a neuroscientist researching the cognitive processes underlying successfully achieving goals and ways to support goal attainment. With the goal of transforming the future of mental health, she integrates her lived experience of neurodivergence with formal training in clinical science and advocacy work. Her research in the field of computational psychiatry addresses challenges with cognitive function and motivation that individuals with mental health conditions sometimes experience. She is currently a staff scientist at Washington University in St. Louis in the Psychological & Brain Sciences department and earned her PhD at the Princeton Neuroscience Institute. Her goal is to integrate neurodiversity and disability perspectives into psychology and psychiatry research and practice. For example, by understanding cognition in context, targeting increased accessibility, and adopting strengths-based approaches. She has led workshops on “Neurodiversity in Academia” and “Neurodiversity Affirming Computational Psychotherapy” as well as discussing these topics on podcasts and news articles. She contributes her lived expertise to LivedX for Neuro, with an eye towards 1) increasing autonomy for mental and brain health care users, 2) decreasing stigma and bias (e.g., ableism, sanism), and 3) leveraging the tremendous potential of neuroscience to improve well-being. You can learn more about Dr. Bustamante on her personal website at: https://www.lauraanabustamante.com/.

Brian Fiske

Member

Brian Fiske, Ph.D. is Chief Scientist at The Michael J. Fox Foundation for Parkinson's Research, where he has developed and led scientific strategy for over two decades. A neuroscientist by training, Brian earned his PhD from the University of Virginia with postdoctoral training at Columbia University before serving as an Associate Editor at Nature Neuroscience. At MJFF, he drives an ambitious research agenda to accelerate development of new Parkinson's therapies, championing open science and collaborative approaches to de-risk innovation. He is widely published in the field and serves on multiple international advisory committees shaping the future of neurodegenerative disease research.

Magali Haas

Member

Magali Haas, M.D., Ph.D. is a committed, global leader in brain health research, advocacy, and policy, with over 25 years of experience advancing precision approaches for complex brain disorders. Her career has focused on integrating disease biology, biomarkers, computational modeling, and therapeutic innovation to accelerate more targeted and effective treatments worldwide. Dr. Haas currently serves as Chief Medical Officer and a member of the Board of Directors at Psilera Inc., where she supports the development of next-generation neuroplastogens for multiple brain disorders. She is also the Founder and Board Chair of Cohen Veterans Bioscience, a nonprofit biomedical and technology research organization she led as CEO from 2012 to 2024. Under her leadership, the organization pioneered internationally recognized translational research and advocacy programs in PTSD and traumatic brain injury, catalyzing biomarker discovery, disease target validation, and cross-sector collaboration. Previously, Dr. Haas held senior bench-to-bedside leadership roles across early- and late-stage neuroscience clinical development, translational medicine, diagnostics, and integrative solutions at Johnson & Johnson. She advises national and international stakeholders as a member of the National Research Advisory Council to the U.S. Secretary of Veterans Affairs and through service on global advisory boards, including the European Platform for Neurodegenerative Diseases and IMEC. Dr. Haas earned a BS in Bioengineering from the University of Pennsylvania, an MS in Biomedical Engineering from Rutgers University, and an MD and PhD in Neuroscience, with distinction, from Albert Einstein College of Medicine.

Julie Harris

Member

Julie Harris, Ph.D. is the Vice President of Science Initiatives at the Allen Institute. Harris was previously Executive Vice President of Research Management at the Cure Alzheimer's Fund where she oversaw the funding strategy and research priorities for a ~$29 million grant portfolio in support of the most promising science and scientists working to end the burden of Alzheimer's disease. Between 2011 and 2020, she worked at the Allen Institute for Brain Science as a researcher and Associate Director of Neuroanatomy where she played pivotal roles building several of the Institute's signature, foundational open science resources, including the Allen Mouse Brain Connectivity Atlas. Harris was also Vice President of Preclinical Biology at Cajal Neuroscience, a Seattle biotech startup focused on identifying therapies for neurodegenerative disease. She received a B.S. in Zoology from Michigan State University, a Ph.D. in Neurobiology and Behavior from the University of Washington, and has 50 peer-reviewed publications to her name.

Steven E. Hyman

Member

Steven E. Hyman, M.D. is Harvard University Distinguished Service Professor and Harald McPike Professor of Stem Cell and Regenerative Biology and a Core Institute Member of the Broad Institute of MIT and Harvard where he directs the Broad Program in Brain Health. He is principal investigator of the Psychiatric Biomarkers Network (PBN), a multi-institutional and multi-sector consortium aimed at discovering fluid biomarkers for schizophrenia-bipolar spectrum disorders and establishing a repository for sharing of samples and data. From 2012-2024 Hyman directed the Stanley Center for Psychiatric Research at Broad, from 2001 to 2011 he served as Provost (chief academic officer) of Harvard University, and from 1996 to 2001 he was Director of the US National Institute of Mental Health (NIMH). At NIMH he modernized its research investments, emphasizing neuroscience, emerging genomic technologies, and initiating a series of large pragmatic clinical trials to inform practice. He has served as Editor of the Annual Review of Neuroscience (2002-2016) and Chair of the International Advisory Committee on the revision of the Mental, Behavioral, or Neurodevelopmental Disorders section of the International Classification of Diseases, 11th edition, (ICD-11) for the World Health Organization (2006-2014). He was founding President of the International Neuroethics Society (2008-2013), President of the Society for Neuroscience (2015), and President of the American College of Neuropsychopharmacology (2018). He is a fellow of the American Academy of Arts and Sciences, a fellow of the American Association for the Advancement of Science, a distinguished life fellow of the American Psychiatric Association, and a member of the National Academy of Medicine (NAM) where he is a member of the Forum on Neuroscience and Nervous System Disorders (chaired 2012-2018), served on the governing Council (2012-2018), and represented NAM on the governing board of the National Research Council, the operating arm of the National Academies of Sciences, Engineering, and Medicine (2016-2019). He currently chairs the Boards of Directors of the Charles A. Dana Foundation (NY) and the Wyss Center for Bio and Neuroengineering (Geneva, Switzerland). In the private sector he is a Director of Voyager Therapeutics, Cyclerion Therapeutics, and Vesalius Therapeutics, and is a founder of Emugen Therapeutics. He serves on the Scientific Advisory Boards of J&J Innovative Medicines and F-Prime Capital. He received his BA, summa cum laude, from Yale, an MA from the University of Cambridge, which he attended as a Mellon fellow studying History and Philosophy of Science, and an MD, cum laude, from Harvard Medical School.

Michael Irizarry

Member

Michael C. Irizarry, M.D., M.P.H. is Senior Vice-President of Clinical Research and Deputy Chief Clinical Officer at Eisai, responsible for the overall strategy and clinical development of the neurosciences portfolio, including regulatory approvals for lecanemab and lemborexant. He earned undergraduate and medical degrees from Georgetown University and an MPH from the Harvard School of Public Health. He completed neurology residency and Memory Disorders Fellowship at Massachusetts General Hospital, and continued as Harvard Medical School faculty in the Massachusetts Alzheimer's Disease Research Center. His research encompassed molecular mechanisms, clinical-pathological correlations, animal models, biomarkers, and epidemiology of neurodegenerative diseases, especially Alzheimer's disease. Prior to joining Eisai in 2018, Dr. Irizarry held a series of leadership positions at Eli Lilly (Vice-President, Early Clinical development, Neurosciences), and GlaxoSmithKline (including acting Vice President for Worldwide Epidemiology).

Bruce Korf

Member

Bruce Korf, M.D., Ph.D. is the former Chair of the Department of Genetics, Associate Dean for Genomic Medicine, UAB Heersink School of Medicine; Chief Genomics Officer, UAB Medicine, and Wayne H. and Sara Crews Finley Endowed Chair in Medical Genetics. He is currently Distinguished Professor Emeritus of Genetics. Dr. Korf is past president of the Association of Professors of Human and Medical Genetics, past president of the American College of Medical Genetics and Genomics, and past president of the ACMG Foundation for Genetic and Genomic Medicine. He has served on the Board of Scientific Counselors of the National Cancer Institute and the National Human Genome Research Institute at the NIH and is currently a member of the National Advisory Council for Human Genome Research. His major research interests are genomic medicine and the natural history, genetics, and treatment of neurofibromatosis. He served as principal investigator of the Department of Defense funded Neurofibromatosis Clinical Trials Consortium, and as co-PI of the Alabama Genomic Health Initiative. He is the contact PI for the All of Us Southern Network and the UAB Undiagnosed Diseases Program, part of the NIH Undiagnosed Diseases Network. He is co-author of Human Genetics and Genomics (medical student textbook, now in fourth edition), co-editor Emery and Rimoin’s Principles and Practice of Medical Genetics, and former editor-in-chief of the American Journal of Human Genetics. Dr. Korf is on medical advisory committees for SpringWorks Therapeutics, Infixion Bioscience, and Inflection Medicine. He holds stock on GenomeMedical and has stock options for Inflection Medicine.

Dimitri Krainc

Member

Dimitri Krainc, M.D., Ph.D. is the Aaron Montgomery Ward Professor and Chairman of the Davee Department of Neurology and Director of the Feinberg Neuroscience Institute and the Simpson Querrey Center for Neurogenetics. Prior to joining Northwestern in 2013, Krainc spent more than two decades at the Massachusetts General Hospital and Harvard Medical School, where he completed his research and clinical training and served on faculty. He has dedicated his scientific career to studying molecular pathways in the pathogenesis of neurodegeneration. Informed by genetic causes of disease, his work has uncovered key mechanisms across different neurodegenerative disorders that have led to pioneering design and development of targeted therapies. He has received numerous awards and recognitions for his work, including the Javits Neuroscience Investigator Award and the Outstanding Investigator award from NIH, and was elected to the Association of American Physicians, the National Academy of Medicine, and the National Academy of Inventors. He is the principal founding scientist of two biotech companies and serves as President of the American Neurological Association. Dr. Krainc is a Founder of Vanqua Bio, LTI (now Bial) and a Venture Partner at OrbiMed and NeuroVC.