Nominations for Appointment to the Grants Working Group (GWG)

NEW APPOINTMENTS

Stewart Anderson, M.D.
Professor of Psychiatry
Associate Chair for Research, Child Psychiatry
Associate Director, Lifespan Brain Institute
Children's Hospital of Philadelphia and UPenn School of Medicine

Referral: Dr. Anderson was identified by Dr. Chan Lek Tan.

Expertise Relevance to CIRM GWG: Dr. Anderson is familiar with basic techniques for studying neurodevelopment with the above modalities, in particular recent expertise in imaging single synapse activity in culture of human stem cell derived neurons, and in mitochondrial influences on neuronal function. His clinical focus is on intellectual disability, epilepsy, autism, and schizophrenia in which will be invaluable in reviewing Discovery program applications.

Prior Service in CIRM Reviews: Dr. Anderson has participated in Discovery program reviews.

Bio:
Dr. Anderson serves as director of research in the Department of Child and Adolescent Psychiatry and Behavioral Services and associate director of the Lifespan Brain Institute, a CHOP-Penn collaboration dedicated to identifying the neuropathological antecedents of neuropsychiatric disease.

He has a longstanding interest in the interface between basic science and clinical research, and his research has involved the development of the cerebral cortex and schizophrenia.

Dr. Anderson's current research involves the molecular and cellular mechanisms that govern the development of the mammalian forebrain. Using mouse genetics, forebrain slice and dissociated culture techniques, as well as mouse and human embryonic stem cells in cell culture and transplantation experiments, he and his lab team study the development of the cerebral cortex. They are particularly interested in understanding the molecular underpinnings behind the fate determination and axon targeting of subclasses of GABAergenic interneurons implicated in the neuropathology of schizophrenia.

New research directions by Dr. Anderson and his lab include the study of mitochondria in interneuron migration, maturation, and function. In addition, they are generating mouse and human stem cell-derived interneurons for use in cell-based therapies for seizures, psychotic disorders, and as tools for the study of gene-gene and gene-environment interactions in neuropsychiatric disease.

Kristen Brennand, Ph.D.
Elizabeth Mears and House Jameson Professor of Psychiatry
Co-Director, Yale Science Fellows Program
Department of Psychiatry, Division of Molecular Psychiatry
Department of Genetics,
Wu Tsai Institute,
Yale University School of Medicine

Referral: Dr. Brennand was identified by Dr. Rosa Canet-Aviles and John Krystal.

Expertise Relevance to CIRM GWG: Dr. Brennand's expertise in mechanistic studies of neurologic diseases will be invaluable in reviewing Discovery program applications.

Prior Service in CIRM Reviews: N/A

Bio:
Dr. Kristen Brennand is the Elizabeth Mears and House Jameson Professor of Psychiatry and Professor of Genetics at Yale University School of Medicine in New Haven, Connecticut. She established her independent laboratory in the Pamela Sklar Division of Psychiatric Genomics at the Icahn School of Medicine at Mount Sinai in New York City, after completing post-doctoral training at the Salk Institute for Biological Studies with Dr. Fred Gage and graduate studies at Harvard University with Dr. Douglas Melton. Her mission is to unravel the mysteries of the human genome within a collaborative, inclusive, and supportive training environment. Her research combines expertise in human stem cell models, genomic engineering, and neuroscience to identify the mechanisms that underlie brain development, traits, and disease. Understanding the basic biology governing the complex interplay between genetic variants and the environment will springboard the development of novel, personalized approaches to improve health and prevent disease. She is committed to achieving more equitable training for the next generation of rigorous scientists, compassionate physicians, and collaborative teams of cross-disciplinary researchers. Toward this, I am Co-Director of the Yale School of Medicine Science Fellows Program, a recruitment and training pathway for the structured promotion to faculty of recent graduates from disadvantaged backgrounds.

Alice Luo Clayton, Ph.D.
Senior Science Advisor, NIH BRAIN Initiative
Office of the BRAIN Director
National Institutes of Health

Referral: Dr. Clayton was identified by Dr. Rosa Canet-Aviles.

Expertise Relevance to CIRM GWG: Dr.Clayton is trained as a systems/circuit neuroscientist and have broad expertise ranging from microcircuit neural dynamics in animals and humans, to behavioral and cognitive neuroscience in animals and humans. While her technical expertise is not in genetics or cell/molecular biology, she has strong expertise in assessing cell/mol experimental model systems of neurodevelopmental and psychiatric conditions utilizing behavioral or circuit read-outs. Her expertise in planning and implementation of neuroscience initiatives will be invaluable in reviewing Discovery program applications.

Prior Service in CIRM Reviews: N/A

Bio:
Dr. Alice Luo Clayton joined the Office of the BRAIN Director in 2023 as a Senior Science Advisor. In her role, Alice will focus on strategic planning and implementation of integrative activities across the BRAIN initiative. Alice brings over 14 years of experience in the research funding ecosystem. Most recently, she was at the Coalition for Aligning Service working on behalf of the Sergey Brin Family Foundation to spearhead the initial strategic framework for a new research initiative. Prior to that role, she was a Senior Scientist at the Simons Foundation Autism Research Initiative for 11 years. She managed grant portfolios and related activities within systems, behavioral, and cognitive neuroscience. She also created and oversaw the Bridge to Independence program. Alice began her career in research funding as a AAAS Science & Technology Policy fellow at NIMH, focusing on programmatic activities in developmental translational research.

Dr. Luo Clayton was trained as a systems neuroscientist, receiving her Ph.D. from the University of Pennsylvania under the mentorship of Dr. Gary Aston-Jones and completing postdoctoral training at the Intramural Research Program at the National Institute on Drug Abuse under the mentorship of Dr. Roy Wise. Her research focused on delineating the form and function of novel afferent circuitry to the Ventral Tegmental Area and specifying the role of these circuits in circadian rhythms, motivation and contextual learning. She is passionate about creative opportunities that bring diverse perspectives together to achieve innovative, yet pragmatic solutions for unmet medical needs.

Matthew J. Girgenti, Ph.D.
Assistant Professor, Psychiatry
Member, Wu Tsai Institute at Yale, Center for Brain and Mind Health, Yale Stem Cell Center, Yale School of Medicine
Investigator, National Center for PTSD, West Haven VA Medical Center

Referral: Dr. Girgenti was identified by Dr. John Krystal.

Expertise Relevance to CIRM GWG: Dr. Girgenti's expertise in functional genomics of psychiatric disorders will be invaluable in reviewing Discovery program applications.

Prior Service in CIRM Reviews: N/A

Bio:
Dr. Matt Girgenti is an Assistant Professor of Psychiatry at Yale School of Medicine. He is a neuroscientist and molecular biologist and a member of the Division of Molecular Psychiatry and the Wu Tsai Institute at Yale. He is also a VA-NCPTSD Research Scientist at the West Haven VA Medical Center. He received his doctoral degree at the University of Connecticut in molecular neuroscience. He completed his postdoctoral fellowship in Molecular Psychiatry at Yale followed by a VA Career Development fellowship in postmortem brain genomics. His early research focused on the epigenetic basis of schizophrenia using neural stem cells to demonstrate a role for the SCZ-risk gene *ZNF804a* as a gene transcription regulator. During his postdoc, his research focused on the cell-type-specific effects of rapid antidepressants, including ketamine and scopolamine using pharmacogenomic approaches. During his VA Career Development fellowship he worked on human postmortem studies focused on the functional genomics of neuropsychiatric disorders, specifically PTSD brain (Girgenti MJ, et al. 2021). His research now focuses on genomic studies of the postmortem human brain, combining molecular biology and bioinformatics to understand the neurobiology of major brain and behavioral disorders, including depression, PTSD, and alcohol use disorder.

Karoline Kuchenbäcker, Ph. D.
Professor of Genetic Epidemiology
University College London

Referral: Dr. Kuchenbäcker was identified by Dr. Andrew Mcquillin.

Expertise Relevance to CIRM GWG: Dr. Kuchenbäcker's expertise in genetic risk factors for psychosis and mood disorders will be invaluable in reviewing Discovery program applications.

Prior Service in CIRM Reviews: N/A

Bio:
Dr. Karoline Kuchenbäcker is Professor of Genetic Epidemiology at University College London where she leads the "Diversity in Genomics" group. Her research focusses on the genetic and environmental risk factors for diseases by leveraging the unique characteristics of diverse populations. She has developed methodological standards for diverse samples as well as innovative methods to empower locus discovery and to assess transferability of genetic risk factors.

She is also the Scientific Lead/interim Program co-Lead for Diverse Data at Genomics England which aims to reduce health inequalities and improve patient outcomes within genomic medicine.

Dr. Kuchenbäcker's group is leading international efforts to understand the genetic basis of major depressive disorder in diverse populations. She is also the PI of DIVERGE, one of the largest dedicated cohorts for clinical depression.

Dr. Kuchenbäcker earned her PhD in Genetic Epidemiology at University of Cambridge, UK, and completed her postdoctoral training at the Wellcome Sanger Institute where she developed a strong interest in genetic research in diverse populations.

She co-founded the London Genetics Network (LGN) to increase collaboration, foster diversity, develop resources for training and development, and to support early career researchers.

Ralda Nehme, Ph.D.
Director, Stem Cell Program; Institute Scientist
Broad Institute

Referral: Dr. Nehme was identified by Dr. Steve McCarroll.

Expertise Relevance to CIRM GWG: Dr. Nehme's expertise in investigating the genetic, cellular, and molecular mechanisms underlying neurodevelopmental and psychiatric diseases, using human stem cell-based models, genome editing technologies, and image-based, electrophysiological, and genetics approaches to examine cellular phenotypes linked to human genetic variation will be invaluable in reviewing Discovery program applications.

Prior Service in CIRM Reviews: Dr. Nehme has participated in Discovery program reviews.

Bio:
Ralda Nehme is an institute scientist and principal investigator in the Stanley Center for Psychiatric Research at the Broad Institute of MIT and Harvard, where she also directs the stem cell program. Her research is focused on investigating the genetic, cellular, and molecular mechanisms underlying neurodevelopmental and psychiatric diseases. The Nehme lab uses human stem cell-based models, genome editing technologies, and image-based, electrophysiological, and genetics approaches to examine cellular phenotypes linked to human genetic variation. Through a large collaborative effort, they have established a key resource of human pluripotent stem cells and genetic data from hundreds of donors, aimed at expanding the scalability of experimental systems and understanding how specific genetic variants influence cellular phenotypes.

Nehme has received recognition and funding from numerous groups, including the Brain and Behavior Research Foundation, the Simons Foundation Autism Research Initiative, the Maternal and Child Health Research Institute at Stanford University, and the National Institute of Mental Health.

Nehme received her B.S. at the American University of Beirut. She completed her Ph.D. at Dartmouth College, where she studied neuronal development in C. elegans. She then conducted postdoctoral research at Harvard University, where she became interested in modeling psychiatric disease, and developed efficient methods to generate human stem cell-derived neural cells.

Diana Perkins, M.D., M.P.H.
Professor and Director of OASIS (Outreach and Support Intervention Services), University of North Carolina, School of Medicine, Psychiatry

Referral: Dr. Perkins was identified by the CIRM Review Team.

Expertise Relevance to CIRM GWG: Dr. Perkins' expertise in psychosis risk prediction and early intervention will be invaluable in reviewing Translational program applications.

Prior Service in CIRM Reviews: N/A

Bio:
Diana O. Perkins is an American professor at the University of North Carolina's (UNC) School of Medicine where she teaches psychiatry. She is a fellow with outreach roles. Her research involves early diagnosis and treatment of schizophrenia. She is noted for publishing a study that demonstrated that using a polygenic risk score (PRS) based on data from genome-wide association studies improved the psychosis risk prediction in persons meeting clinical high-risk criteria.

Perkins' undergraduate work was completed at the University of Maryland Psychology and Biochemistry. She received her Doctor of Medicine at University of Maryland School of Medicine. She completed a graduate degree in Epidemiology from UNC.

Tracy Young-Pearse, Ph.D.
Dennis J. Selkoe, MD, Distinguished Chair in Neurology
Associate Professor of Neurology, Harvard Medical School
Vice-Chair of Neuroscience Research, Brigham and Women's Hospital
Co-Director Human Nervous System Diseases Program, Harvard Stem Cell Institute (HSCI)

Referral: Dr. Young-Pearse was identified by Dr. Rosa Canet-Aviles.

Expertise Relevance to CIRM GWG: Dr. Young-Pearse is a neuroscientist dedicated to understanding the cellular and molecular mechanisms underlying neurological diseases, with an emphasis on understanding how genetic risk and resilience factors for disease impact upon the function of human brain cells. Her work integrates studies of

fundamental cell biological processes with studies of rodent models and human cohorts to disentangle the molecular roads leading to neurological disease will be invaluable in reviewing Discovery program applications.

Prior Service in CIRM Reviews: N/A

Bio:
Dr. Tracy Young-Pearse, PhD is a neuroscientist dedicated to understanding the cellular and molecular mechanisms underlying neurological diseases, with an emphasis on understanding how genetic risk and resilience factors for disease impact upon the function of human brain cells. Her work integrates studies of fundamental cell biological processes with studies of rodent models, human induced pluripotent stem cell experimental systems and human cohorts to disentangle the molecular roads leading to neurological disease. She is an Associate Professor of Neurology at Harvard Medical School, the Vice Chair for Basic Research in Neurology at Brigham and Women's Hospital and holds the Dennis J. Selkoe Distinguished Chair in Neurology.

Dr. Young-Pearse is a first-generation college graduate from a small town in upstate New York. As an undergraduate at Skidmore College in her hometown of Saratoga Springs. Her undergraduate research led her to Harvard University, where she entered their PhD program in Biomedical and Biological Sciences. There she studied cell fate determination in the retina under the guidance of Dr. Constance Cepko in the Department of Genetics. She then received postdoctoral training under the mentorship of Dennis Selkoe, which dramatically propelled her interests in interrogating mechanisms of neurological diseases.

Dr. Young-Pearse started her independent lab in 2013. Their lab was among the first to model familial Alzheimer's disease using induced pluripotent stem cell (iPSC) technology. They began by focusing on fully penetrant missense mutations in the gene APP that causes an early-onset form of the disease and showed that fAD mutation alters the cleavage profile of APP to affect the types of Aβ secreted and that this in turn affects the levels and phosphorylation state of tau in human neurons. They found that this effect on tau only occurs in neurons of forebrain fate, and that hindbrain neurons are more resistant to neurotoxic forms of Ab. They were the first to show that APP-mutant neurons respond to anti-Ab immunotherapeutic agents to reduce phosphorylated tau in cortical neuronal cultures.

Dr. Young-Pearse's interest in neurodevelopment from her early training years continues and informs her work on neurodegenerative disorders. Her lab has employed genome engineering strategies to probe molecular and regulatory functions of genetic variants implicated in neurodevelopmental disorders that have neurodegenerative components. This approach yielded numerous insights including the identification of dysregulated synaptic vesicle release in Trisomy 21 neurons, a mechanistic role of the autism gene POU3F2 in regulating Wnt signaling, and the consequence of mutation of the Christian Syndrome gene SLC9A6 on disrupted TAU proteostasis through autophagic regulation. Perhaps her lab's most notable research contributions are to the field's advancements in disentangling different molecular roads that lead to late onset Alzheimer's disease. For this they have deeply studied how common genetic risk factors drive dysfunction of different cell types in the brain. A key tool that they generated for this purpose was a set of iPSC lines from over 100 individuals in a deeply phenotyped cohort of aging. Using this cohort, they were the first to show quantifiable congruence between the expression profile of iPSC-derived neurons and astrocytes and the expression profile of brain tissue from the same individuals. More importantly, they showed an association of cognitive decline in the donor with measures of Aβ and tau in iPSC-derived neurons. In parallel, they've utilized large -omics data sets from human postmortem brain tissue and iPSC models to interrogate the functions of LOAD-associated genes such as INPP5D and SORL1, and how disruption of these genes can lead to disease. These studies consistently demonstrate that complex pathological conditions, such as late onset neuronal degeneration, are driven by the interactions of multifaceted biological domains that integrate to affect pathological tolerance, tipping the scales toward or away from clinically relevant outcomes.

Paul C. Van Ness, M.D.
Professor, Neurology-Neurophysiology, Baylor College of Medicine

Referral: Dr. Van Ness was identified by the CIRM Review Team.

Expertise Relevance to CIRM GWG: Dr. Van Ness's expertise in Clinical Neurophysiology & Treatment of Epilepsy will be invaluable in reviewing Translational program applications.

Prior Service in CIRM Reviews: Dr. Van Ness has participated in Clinical program reviews.

Bio:
Dr. Paul C. Van Ness is Professor of Neurology-Neurophysiology at Baylor College of Medicine. Dr. Van Ness is also Director of the Baylor Comprehensive Epilepsy Center and Head of the Peter Kellaway Section of Neurophysiology at BCM. His clinical interests include Epilepsy, Clinical Neurophysiology and General Neurology.

Dr. Van Ness received his medical degree from the University of California, Los Angeles (UCLA). He completed his internship in Internal Medicine at Cedars Sinai Medical Center in Los Angeles and his residency in Neurology at UCLA, where he also held a Fellowship in Epilepsy & Clinical Neurophysiology.

Dr. Van Ness has held certifications in Neurology, Clinical Neurophysiology, and Epilepsy from the American Board of Psychiatry and Neurology. He is an author or co-author of more than 70 journal articles on treatments for epilepsy and other seizure disorders. He has been a member of numerous medical societies and associations, more recently as a Fellow Member of the American Academy of Neurology.

REAPPOINTMENTS

CIRM is seeking the reappointment of the individuals listed in the table below. Their updated biographies follow.

Proposed Reappointments to GWG

Last	First	Term	Years	Expertise
Jenkins	Marc K.	3	6	Biology of T-Cell Immune & Autoimmune Responses
Povsic	Thomas J.	2	4	Translating Cell Therapies for Heart Disease
Sadek	Hesham	3	6	Stem Cell Metabolism & Cardiac Regeneration

Marc Jenkins, PhD
Marc K. Jenkins is a Regents Professor in the Department of Microbiology at the University of Minnesota, Minneapolis, Minnesota and Director of the Center for Immunology at the University of Minnesota. He was the ninety-seventh president of the American Association of Immunologists from 2013 to 2014 and served as an AAI Council member from 2008 to 2015. Dr. Jenkins was awarded the AAI Meritorious Career Award in 2002, AAI Excellence in Mentoring Award in 2018, and the AAI Lifetime Achievement Award in 2020. He was elected to the National Academy of Sciences in 2020.

Dr. Jenkins is an immunologist who studies CD4+ T lymphocytes. He is known for his work on the signals that these cells need to become activated by antigens, where in the body activation occurs, and how activation results in immune memory. Dr. Jenkins was born and raised in Minnesota. He received a BS degree in microbiology from the University of Minnesota in 1980 and a Ph.D. in microbiology and immunology from Northwestern University in 1985. He was a postdoctoral fellow in the Laboratory of Immunology at the National Institutes of Health before joining the faculty at the University of Minnesota.

Marc Jenkins' laboratory is interested in the consequences of antigen recognition by CD4+ T cells. His group is working to understand how the small number of CD4+ T cells that are specific for antigens from any given microbe or self-tissue participate in immune responses that are beneficial (infection control) or detrimental (autoimmunity) to the host. They are interested in the anatomy of CD4+ T cell activation, in particular how CD4+ T cells help B cells undergo affinity maturation in germinal centers or control macrophage infections in granulomas. They are also interested in fundamental questions such as how do B cell- and macrophage-helping CD4+ T cells form at the same time and why do only a small subset of the proliferating progeny of antigen-specific CD4+ T cells survive to become memory cells.

Dr. Jenkins has served on the GWG for 10 years. He has reviewed for Discovery stage programs and COVID-19 awards.

Thomas J. Povsic, MD, PhD, FACC, FSCA
Dr. Thomas Povsic is a tenured associate professor of medicine and interventional cardiologist at the Duke Clinical Research Institute (DCRI) at Duke University Medical Center. He received his Ph.D. in bioorganic chemistry from the California Institute of Technology, and his MD from Harvard Medical School and has been on faculty since 2004.

Dr. Povsic's key research interest has been investigating the role of cell therapy in vascular disease and the development and translation of novel basic therapeutics to clinical use. He has led a laboratory focused on the assessment of endothelial progenitor cells (EPCs) in a variety of clinical conditions, and has published extensively on the relationship between reparative capacity and a variety of clinical and functional outcomes. The Povsic lab has collected blood for analysis of EPCs in over 1000 patients and has worked with in collaboration with biomedical engineering to use EPCs derived from patients with advanced CAD to line and form novel grafts. Other research interests include regenerative approaches to treatment of acute myocardial infarction as well as molecular approaches to limiting reperfusion injury, as well as development of novel antithrombotic therapies.

Dr. Povsic has played a leadership role in a multitude of clinical trials in regenerative medicine for cardiovascular indications, including MARVEL exploring myoblast therapy for congestive heart failure, and as the national principal investigator of the RENEW trial exploring the use of autologous CD34+ cell for the treatment of refractory angina as well as lead investigator in the CHART program, a trial of autologous bone marrow cells augmented for cardiopoiesis for the treatment of congestive heart failure. He most recently led the EXACT trial of VEGF gene therapy for refractory angina. He has served on the executive and steering committees for such large phase III programs as REGULATE-PCI and AEGIS-2 exploring novel thrombotic therapies and lipid modulation in the treatment of cardiovascular disease. He is also a member of the Transatlantic Alliance for Cell Therapy In Cardiovascular Syndromes (TACTICS group). He has served as a principal investigator or adjudicator for over 75 clinical event committees, as well as served on several data safety monitoring boards, trial steering committees, and advisory boards.

Dr. Povsic has served on the GWG for 6 years. He has reviewed for Clinical program.

Hesham Sadek, MD, PhD
Dr. Hesham Sadek obtained his medical degree from Ain Sham University in Cairo, Egypt, and his PhD from Case Western Reserve University in Cleveland, Ohio. He completed clinical training in Internal Medicine and cardiology at the University Hospitals of Cleveland, and post-doctoral fellowship in cardiac regeneration at UT Southwestern Medical Center. He is a practicing cardiologist with board certification in Internal Medicine, Cardiovascular Disease and Echocardiography.

Dr. Sadek's research focuses on mammalian heart regeneration, and the link between metabolism and cell cycle regulation. He is currently a Professor of Internal Medicine/Cardiology, Molecular Biology and Biophysics at UT Southwestern Medical Center, where he holds the J. Fred Schoellkopf, Jr. Chair in Cardiology. The Sadek laboratory is funded by grants from NIH, AHA, NASA, CPRIT, CRSM and Foundation Leducq. Most recently, he accepted a position as Chief of Cardiology and Director of the Sarver Heart Center at University of Arizona.

Dr. Sadek has served on the GWG for 12 years. He has reviewed for Discovery and Translational programs.