Nominations for Appointment to the Grants Working Group (GWG)

NEW APPOINTMENTS

Deborah K. Armstrong, MD
Professor of Oncology and of Gynecology & Obstetrics, Johns Hopkins University

Referral: Dr. Armstrong was identified by the Review team's Senior Science Officer based on assessment of expertise through publications.

Expertise Relevance to CIRM GWG: Dr. Armstrong's expertise in breast cancer, cancer genetics, gynecologic cancers, and medical oncology will be invaluable in the Clinical stage program awards.

Prior Service in CIRM Reviews: Dr. Armstrong has served as a specialist reviewer for Clinical stage programs. She has also served on a CIRM Clinical Development Advisory Panel.

Dr. Deborah K. Armstrong is Professor of Oncology and of Gynecology & Obstetrics at the Johns Hopkins University School of Medicine. Dr. Armstrong works in the area of women's malignancies, with a particular emphasis on breast cancer, ovarian cancer and other gynecologic malignancies, and the genetics of breast and ovarian cancer. Dr. Armstrong's clinical focus is on the development of new therapeutic approaches to the treatment of breast cancer and gynecologic malignancies. Dr. Armstrong is active in NRG/GOG, serving on Developmental Therapeutics and Phase I committees and as co-chair of the Medical Oncology Committee. She is co-chair of the for the Gynecologic Cancer Steering Committee of the National Cancer Institute and chair of the Ovarian Committee for the National Comprehensive Cancer Network (NCCN). She is a former member and chair of the Oncology Drugs Advisory Committee (ODAC) to the FDA. She has been an Integration Panel Member of the DOD Ovarian Cancer Research Program since 2007.

Dr. Deborah K. Armstrong received a bachelor's degree in bacteriology from the University of California at Berkeley then attended the George Washington University School of Medicine. While at George Washington, she was elected to the Alpha Omega Alpha medical honor society and was awarded the American Medical Women's Association Scholarship Achievement Citation. Dr. Armstrong received her MD degree with distinction then completed training in internal medicine at the University of Pittsburgh and served as Chief Medical Resident. Dr. Armstrong completed a fellowship in medical oncology at the Johns Hopkins Oncology Center. During her oncology training Dr. Armstrong was awarded fellowships from the Susan G. Komen Foundation and the Stetler Research Fund. Dr. Armstrong has been a faculty member at the Johns Hopkins Kimmel Cancer Center since completing fellowship. Since joining the Johns Hopkins faculty, Dr. Armstrong has received a Young Investigator Award from the American Society of Clinical Oncology, a Career Development Award from the American Cancer Society, the Ladies Home Journal Breakthrough Achievement Award, the Rosalind Franklin Award for Excellence in Ovarian Cancer Research, the Director's Teaching Award in Clinical Science from the Johns Hopkins Kimmel Cancer Center, and has twice received the Johns Hopkins University Department of Medicine Osler Housestaff Teaching Award.

Elizabeth Connick, MD
Professor of Medicine and Immunology, University of Arizona

Referral: Dr. Connick was identified by the Review team's Senior Science Officer based on assessment of expertise through publications.

Expertise Relevance to CIRM GWG: Dr. Connick's expertise in HIV immunopathogenesis, HIV-related cardiovascular

disease, and HIV in women will be invaluable in the review of Discovery, Translational, and Clinical stage program awards. She also has expertise in education, from high school level to clinical fellowships.

Prior Service in CIRM Reviews: Dr. Connick has served as a specialist reviewer on Discovery program awards.

Bio:
Dr. Elizabeth Connick is a Professor of Medicine and Immunobiology and Chief of the Division of Infectious Disease at the University of Arizona College of Medicine. She is also the current Chair of the Women's Health Collaborative Science Group affiliated with the AIDS Clinical Trials Group (ACTG). Her research is focused on the immunopathogenesis of HIV-1 infection including HIV cure strategies, sex differences in HIV infection, and cardiovascular disease. She is well known for studies of lymphoid tissue immunology and clinical trials of immune-based therapies in HIV-1 infection.

Dr. Connick earned her MD at Harvard Medical School, completed her internship and residency in Internal Medicine at Columbia Presbyterian Hospital in New York, and completed her fellowship in Infectious Diseases at University of Colorado Health Sciences Center in Denver. She was a member of the faculty in the Division of Infectious Diseases at the University of Colorado for 22 years prior to accepting her current position at University of Arizona. On a national level, she previously served as chair of the NIH's AIDS Immunology and Pathogenesis study section, and as a member of the FDA Antiviral Drug Advisory Committee and the Office of AIDS Research Advisory Council. She is currently the chair of the Women's Health Collaborative Science Group as well as a member of the Scientific Advisory Steering Committee of the ACTG. She received the Constance B Wofsy Woman's Health Award in 2020 in recognition of her contributions to scientific research on women living with HIV. She is an Associate Editor for *Clinical Infectious Diseases*, and serves on the Editorial Boards of *Infectious Disease News, Frontiers in Immunology, Journal of the International AIDS Society,* and the *Journal of Acquired Immune Deficiency Syndromes.*

Julian Hiscox, PhD
Professor, University of Liverpool

Referral: Dr. Hiscox was identified by the Review team's Senior Science Officer based on assessment of expertise through publications.

Expertise Relevance to CIRM GWG: Dr. Hiscox's expertise on coronaviruses will be invaluable in the review of Discovery and Translational stage applications.

Prior Service in CIRM Reviews: Dr. Hiscox has served as a specialist reviewer on Translational program awards.

Bio:
Dr. Julian Hiscox has been Chair (and Professor) in Infection and Global Health at the University of Liverpool since 2012 and is currently a Deputy Associate Pro-Vice Chancellor for Research and Impact. He also has an adjunct professorial appointment with the Infectious Disease Horizontal Technology Centre (ID HTC), part of the Agency for Science, Technology and Research (A*STAR) in Singapore. His work has focused on viral genetics, viral evolution, viral interactions with the respiratory system, viral interactions with the human body and animal models of disease. He runs a research group composed of 6 PDRAs and 10 PhD students investigating coronaviruses, Ebola virus, and respiratory threats and viruses. His laboratory's work on SARS-CoV-2 includes viral genetics and evolution, analysis of tissue from patients with COVID-19, analysis of post-mortem tissue, development of diagnostic sequencing methodologies and analysis of virus and tissue from animal models of disease.

Dr. Hiscox has a BSc in Genetics from University College London (1991) and a PhD in Microbiology on the mechanism of coronavirus RNA synthesis from the University of Reading (1995). He has been working on corona and related viruses since 1991, has been a principal investigator (running his own research group) since 1999 on coronaviruses. He has published over 140 peer reviewed scientific papers on viruses, including in the premier scientific journals of *Nature* and *Science*. His coronavirus experience spans animal, avian and human coronaviruses including SARS-coronavirus, MERS-coronavirus and SARS-coronavirus-2 (SARS-CoV-2) – the causative agent of COVID-19. He has published some 60 scientific papers on coronaviruses and 19 papers on related viruses. He has also worked on influenza virus and human respiratory syncytial virus. His current research portfolio includes over $9 million in funding to work on severe coronaviruses in humans and animal models and medical countermeasures funded by the US Food and Drug Administration. He has research funding to work on other biological and chemical threats that cause respiratory damage in partnership with the Defence Science Technology Laboratory. His expertise in viruses is recognised by his co-opted membership of The New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG), an advisory body that advises the UK Government's Chief Medical Officer, and the Department of Health's Advisory group for testing – serology for SARS-CoV-2. He acts as a consultant for King Fahad Medical

City in Saudi Arabia on severe coronavirus infection in humans including SARS-CoV-2 and MERS-CoV. Previously, he was an infantryman in the British Army reserve and is currently an instructor for Royal Airforce air cadets.

Clark Hung, PhD
Professor, Biomedical Engineering & Orthopedic Sciences (in Orthopedic Surgery)

Referral: Dr. Hung was identified by the Review team's Senior Science Officer based on assessment of expertise through publications.

Expertise Relevance to CIRM GWG: Dr. Hung's expertise in cartilage bioengineering as well as teaching/mentoring invaluable to reviewing Discovery stage, Translational stage, and Education program awards.

Prior Service in CIRM Reviews: Dr. Hung has served as a specialist reviewer on Discovery stage programs, i.e., Basic Biology and Quest.

Bio:
Dr. Clark Hung is a Professor of Biomedical Engineering & Orthopedic Sciences at Columbia University's Department of Biomedical Engineering. He also serves as Director of the Cellular Engineering Laboratory and Director of the Masters Program in the Department of Biomedical Engineering. He conducts basic to translational stage musculoskeletal research. His recent focus has been on using state-of-the-art biological and engineering tools to perform cell and tissue research aimed at developing effective tissue replacements which mimic or restore normal tissue structure-function in orthopaedic and other load-bearing tissues of the body. His overall goal is to alleviate the most prevalent and chronic problems afflicting the musculoskeletal system such as arthritis, and problems related to sports and occupational injuries.

Dr. Hung earned his BS in Bioengineering at Brown University, his MEng and PhD in Bioengineering at University of Pennsylvania. He completed his postdoctoral fellowships at University of Pennsylvania in NASA research and at Columbia University in cartilage bioengineering. He serves as the Associate Editor for the *Journal of Orthopaedic Research*, Editor-in-Chief of *Orthopaedic Research and Reviews*, and Editorial Board Member of *The Open Orthopaedics Journal,* and has served as Deputy Editor, Editorial Board member and/or ad hoc reviewer for many other journals such as *Tissue Engineering: Parts A, B, C, Journal of Orthopaedic Research, Stem Cells.* He is a fellow of the Orthopaedic Research Society (ORS), International Combined Orthopaedic Research (ICORS), Biomedical Engineering Society (BMES), American Society of Mechanical Engineers (ASME), and American Institute for Medical and Biological Engineering (AIMBE). His research has led to over 165 publications and multiple patents, including one licensed to MTF Biologics (Edison, NJ) on a preservation media for osteochondral allografts used in the clinic. He has graduated 16 Columbia PhDs as primary advisor, including 5 individuals holding tenured faculty positions, 4 NSF graduate fellows, 5 NSF honorable mentions, 1 Whitaker Predoctoral Fellow and 1 Whitaker International Fellow. Dr. Hung has also made an effort to mentor and train DEI students over his career, including undergraduate students in BME and high school students enrolled in his summer course at Columbia. Among many honors, he has received the ORS Outstanding Achievement in Mentoring Award and the Marshall R. Urist Award for Excellence in Tissue Regeneration Research.

Martha Rook, PhD
Chief Technical Operations Officer, Insitro

Referral: Dr. Rook was identified by the Review team's Senior Science Officer based on assessment of expertise through publications.

Expertise Relevance to CIRM GWG: Dr. Rook's expertise in manufacturing, cell and gene therapy, and neurosocience will be invaluable for reviewing Discovery to Clinical stage program awards.

Prior Service in CIRM Reviews: Dr. Rook has served as a specialist reviewer on Clinical program awards.

Bio:
Martha Rook, insitro's Chief Technical Operations Officer, brings to the role more than 20 years of academic and industry experience in molecular biology, diagnostics development, biologics process development and cell and gene therapy manufacturing. Prior to joining insitro, Martha was Chief Technical Operations Officer at Sigilon Therapeutics, responsible for clinical supply of Sigion's encapsulated allogeneic cell therapy. At Sigilon, Martha led the Analytics, Manufacturing, Supply Chain and Quality organizations. Martha spent 13 years at MilliporeSigma where she held a variety of roles, ultimately serving as VP and Head of the Gene Editing & Novel Modalities Business where she led a

team developing and providing tools and services for cell and gene therapies from discovery to manufacturing. Martha received her Ph.D. in biochemistry from MIT and holds a B.S. in chemistry from Texas A&M University. She pursued post-doctoral studies in neuroscience as a Lefler Fellow at Harvard Medical School's Center for Neurologic Diseases.

Daniel Saris, MD, PhD
Professor, Mayo Clinic

Referral: Dr. Saris was identified by the Review team's Senior Science Officer based on assessment of expertise through publications.

Expertise Relevance to CIRM GWG: Dr. Saris's clinical knowledge and translational research expertise will be invaluable to reviewing Clinical and Translational stage program awards.

Prior Service in CIRM Reviews: Dr. Saris has served as a specialist reviewer on Translational program awards.

Bio:
Dr. Daniel Saris is Professor of Orthopedics and the first Professor of Regenerative Medicine at Mayo Clinic College of Medicine and Science. He serves as the Medical Director of the Mayo Clinic Bone and Tissue Bank and as a Consultant in the Mayo Clinic Department of Orthopedic Surgery. He is also Professor of Reconstructive Medicine at the University of Utrecht in the Netherlands and Clinical professor at the University Twente's Department of Developmental Bioengineering (DBE). Dr. Saris has expertise in regenerative medicine and cartilage repair utilizing cell technology, and his research focuses on biological joint repair, advanced imaging, joint homeostasis, and early intervention. Clinically, he has a focus on knee surgery, biological repair, osteotomy, meniscus, ligament reconstructions and joint replacement.

Dr. Saris earned his MD at the University of Amsterdam and PhD in Orthopaedics at the University of Utrecht in the Netherlands. He completed his residency in Orthopaedics and his research fellowship at the Mayo Clinic Rochester Orthopaedics, Cartilage & Biomechanics Laboratory. He has published over 280 peer-reviewed articles, has served on the Editorial Board of *Cartilage*, and reviewed for *American Journal of Sports Medicine, Biomaterials, Journal of Bone and Joint Surgery, Science* and *Stem Cells.* He helped establish and register ChondroCelect and MACI in the EU ATMP and registry and published the trial allowing MACI to be approved by FDA. Dr Saris and his team invented "Instant MSC Product accompanying Autologous Chondron Transplantation" (IMPACT), a one-stage cell therapy.

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
Doherty	Daniel	3	6	Developmental-Behavioral Pediatrics; Neurogenetics; Hindbrain Malformations; Ciliopathies
Koliatsos	Vassili	2	4	Neural injury and repair; Neurotrophic peptides; Neural stem cells; Neuroprotective small molecules; Neurotrauma; Neurodegenerative diseases; Axons and white matter; Wallerian degeneration
Kurtzberg	Joanne	3	6	HSCT, Cord Blood, and Tissue Cellular Therapies
Lonser	Russell	3	6	Neurosurgery; Drug Delivery; Gene Therapy; Neural Disorders; Neuro-oncology
Mammen	Pradeep	2	6	Cardiomyopathies; Heart Failure & Cardiac Support; Heart Transplant Medicine
Matsui	William	3	6	Cancer and Cancer Stem Cells

Rasmussen	Theodore	3	6	Chromatin Dynamics in Pluripotent Cells; Epigenetics; Teratology; Disease Models; Directed Differentiation; Reproductive Biology; Pharmaceutical Research; Human and Mouse iPSCs and ESCs
Rossant	Janet	3	6	Developmental & Stem Cell Biology
Sykes	Megan	3	6	Bone Marrow Transplantation; Transplantation Immunology
Tabar	Viviane	3	6	Neurosurgery; Brain Tumors; Pluripotent & Neural Stem Cell Biology; Stem Cell Therapy
Wagers	Amy	3	6	Hematopoietic & Skeletal Muscle Stem Cells; Aging
Zúñiga-Pflücker	Juan Carlos	2	2	T Cell Development, Hematopoiesis, Thymus Biology, Notch Signaling

Daniel Doherty, MD, PhD
Dr. Dan Doherty is Professor of Pediatrics at the University of Washington (UW) in the Divisions of Developmental and Genetic Medicine, adjunct Professor of Laboratory Medicine and Pathology, and affiliate Professor of Genome Sciences. He is also the Director of the Hindbrain Malformation Research Program, and the Genetics Core of the UW Intellectual and Developmental Disabilities Research Center, as well as an affiliate of the UW Institute for Stem Cell and Regenerative Research, The Brotman Baty Institute for Precision Medicine, and the Seattle Children's Center for Integrative Brain Research. His research focuses on how genomic perturbations result in hindbrain malformations, as a model for understanding human brain development and common disorders such as intellectual disability, autism, ataxic cerebral palsy, and mental health disorders such as schizophrenia. His group has identified the genetic causes of multiple neurodevelopmental conditions including tubulinopathy-related cerebellar dysplasia, TBCK- and TRAPPC12-related infantile encephalopathies, MACF1-related lissencephaly-brainstem malformation conditions, and MN1-related rhombencephalosynapsis, as well as Chudley-McCullough, Poretti-Boltshauser, and Joubert syndromes, with the objective of translating findings into diagnostic testing, detailed natural history studies to improve diagnostic, prognostic and medical management information for patients, and functional work to identify targets for precision therapies. Dr. Doherty's clinical interests complement the research interests of his group. He cares for children with all types of central nervous system abnormalities including, hindbrain malformations, forebrain malformations, hydrocephalus, agenesis of the corpus callosum, spina bifida, intellectual disability and cerebral palsy. He also provides prenatal counseling to women carrying fetuses with abnormal nervous system imaging findings to provide a pediatric perspective on these conditions.

Dr. Doherty earned his MD and PhD in Molecular Genetics from University of California, San Francisco in the laboratory of Yun Nung and Lily Jan. He completed his Pediatric residency and Developmental-Behavioral Pediatrics fellowship at the University of Washington School of Medicine. He has published over 90 articles in journals such as *Nature Genetics*, *Cell*, *Science*, *Nature Cell Biology*, *American Journal of Human Genetics, Lancet Neurology*, *Brain*, *Human Molecular Genetics*, *Acta Neuropathologica*, *Journal of Medical Genetics*, *American Journal of Medical Genetics, Investigative Ophthalmology and Visual Science,* and others.

Dr. Doherty served as a GWG member for 8 years. He reviewed for Discovery stage (Basic Biology) program awards and Tissue Collection for Disease Modeling awards.

Vassilis Koliatsos, MD, MBA
Dr. Vassilis Koliatsos is Professor of Pathology (Neuropathology), Professor of Neurology, and Professor of Psychiatry and Behavioral Sciences at Johns Hopkins University School of Medicine. He serves on the faculty of the graduate program of Pathobiology of Disease and leads the TBI Research Center in the Department of Pathology. He is also Clinical Professor of Psychiatry at the University of Maryland Medical Center and the Stulman Scholar in Clinical Neuropsychiatry and Senior Neuropsychiatrist for Research and Education at Sheppard Pratt Hospital. His primary research interest is the mechanisms of neural injury and repair, and his research focuses on cellular therapies for neurodegenerative diseases (e.g., Alzheimer's disease and amyotrophic lateral sclerosis (ALS)), and traumatic brain injuries, particularly blast-related traumatic brain injury.

Dr. Koliatsos earned his MD from the University of Athens Medical School in Greece. He completed a residency in internal medicine and neurology at Crete Naval Hospital, a psychiatry fellowship at University of Athens Medical School, and a neurology fellowship at Johns Hopkins Hospital. He also completed an internship in internal medicine

at Franklin Square Hospital, followed by a residency in psychiatry at Sheppard Pratt Hospital. Dr Koliatsos has had his own laboratory in the Division of Neuropathology of Johns Hopkins since 1990. He has worked extensively on the molecular and cellular mechanisms on neural injury and repair and has more than 100 original publications in this area. He discovered important effects of trophic polypeptides in the peripheral and central nervous system and established the foundation for stem cell therapies in amyotrophic lateral sclerosis, with his stem cell work on ALS entering the first clinical trial of cellular therapy for a neurodegenerative disease. His lab currently focuses on traumatic and degenerative axonopathies as they occur in traumatic brain injury (diffuse axonal injury), neurodegenerative diseases i.e., Alzheimer's disease and other white matter conditions, e.g. hypoxic ischemic encephalopathy, demyelination, and they are particularly interested in the role of the MAPK cascade of injury, NAD metabolism and SARM1 signaling and their convergence on Wallerian degeneration. He is actively using human neural stem cells in exploring genetic and pharmacological interventions for axonal degeneration in injury models in vitro.

Dr. Koliatsos has mentored numerous pre- and post-doctoral students and has taught residents in neurology and psychiatry on clinical neurosciences and neuropsychiatry. Among many awards, he has received a Leadership and Excellence in Alzheimer's disease Award and the Javits Neuroscience Investigator Award from NIH and a 2018 Discovery Award from Johns Hopkins University. He has been a public advocate for TBI research and patient care and sat for many years on the Maryland Governor's Traumatic Brain Injury Advisory Board. He has reviewed for NIH and DoD and has served as chair of TBI and Alzheimer's disease study sections for DoD for the last 3 years.

Dr. Koliatsos has served as a GWG member for almost 6 years. He has reviewed for Clinical program awards.

Joanne Kurtzberg, MD
Dr. Joanne Kurtzberg is the Jerome Harris Distinguished Professor of Pediatrics, Professor of Pathology, Director of the Marcus Center for Cellular Cures (MC3), Director of the Pediatric Transplant and Cellular Therapy Program, Director of the Carolinas Cord Blood Bank and Co-Director of the Duke Hospital Stem Cell Transplant Laboratory at Duke University. Dr. Kurtzberg is an internationally renowned expert in pediatric hematology/oncology, pediatric blood and marrow transplantation, umbilical cord blood banking and transplantation, and novel applications of cord blood and birthing tissues in the emerging fields of cellular therapies and regenerative medicine.

Dr. Kurtzberg's research in MC3 focuses on translational studies from bench to bedside, seeking to develop transformative clinical therapies using cells, tissues, molecules, genes, and biomaterials to treat diseases and injuries that currently lack effective treatments. Recent areas of investigation in MC3 include clinical trials investigating the safety and efficacy of autologous and allogeneic cord blood in children with neonatal brain injury – hypoxic ischemic encephalopathy (HIE), cerebral palsy (CP), and autism. Clinical trials testing allogeneic cord blood are also being conducted in adults with acute ischemic stroke. Clinical trials optimizing manufacturing and testing the safety and efficacy of cord tissue MSCs in children with autism, CP and HIE and adults with COVID-lung disease are underway. DUOC, given intrathecally, is under study in children with leukodystrophies and adults with primary progressive multiple sclerosis. The Carolinas Cord Blood Bank is an FDA licensed public cord blood bank distributing unrelated cord blood units for donors for hematopoietic stem cell transplantation (HSCT) through the CW Bill Young Cell Transplantation Program. The Robertson GMP Cell Manufacturing Laboratory supports manufacturing of RETHYMIC (BLA, Enzyvant, 2021), allogeneic cord tissue derived and bone marrow derived mesenchymal stromal cells (MSCs), and DUOC, a microglial/macrophage cell derived from cord blood.

Dr. Kurtzberg earned her MD at New York Medical College, followed by a residency in Pediatrics, and fellowships in Pediatric Hematology/Oncology at Upstate Medical Center in New York and Duke University Medical Center in North Carolina. In the past, Dr. Kurtzberg has developed novel chemotherapeutic drugs for acute leukemias, assays enumerating ALDH bright cells to predict cord blood unit potency, methods of cord blood expansion, potency assays for targeted cell and tissue based therapies. Dr. Kurtzberg currently holds several INDs for investigational clinical trials from the FDA. She has also trained numerous medical students, residents, clinical and post-doctoral fellows over the course of her career.

Dr. Kurtzberg served as a GWG member for 10 years. She reviewed for Translational stage program awards and Disease Team Research awards.

Russell Lonser, MD
Dr. Russell Lonser is Professor and Chair of the Department of Neurological Surgery at The Ohio State University College of Medicine. He holds the Dardinger Family Chair in Neurosurgical Oncology. Previously, he was Chief of the Surgical Neurology Branch at the National Institutes of Health.

Dr. Lonser received his MD from Loma Linda University Medical School and completed his Neurological Surgery residency training at the University of Utah. His research includes nervous system drug delivery, gene therapy and tumor biology. He has authored more than 300 publications. He has served as treasurer and president of the Congress of Neurological Surgeons. He is currently a Director on the American Board of Neurological Surgeons. He was the Head of the Research Subcommittee in Head, Neck and Spine Injury Committee for the National Football League. He has served on the editorial boards of *NEUROSURGERY, World Neurosurgery, Journal of Neurosurgery, PLoS One* and *Science Reports*. He is also consulting editor for *Neurosurgery Clinics of North America* and has edited 3 neurosurgical textbooks.

Dr. Lonser has served as a GWG member for almost 10 years. He has reviewed for the Clinical and Translational stage programs and Disease Team Research awards.

Pradeep Mammen, MD, FACC, FAHA
Dr. Pradeep Mammen is Professor of Internal Medicine who holds the Alfred W. Harris, M.D. Professorship in Cardiology at University of Texas Southwestern Medical Center. He is a clinician-scientist with clinical expertise in advanced heart failure, ventricular assist devices (VAD) and heart transplantation. In keeping with his clinical interest in the treatment and management of patients with a cardiomyopathy, he has developed significant scientific interest in investigating the molecular mechanisms underlying heart failure and cardiac/skeletal muscle myopathies. He is also Co-Director of the Senator Paul D. Wellstone Muscular Dystrophy Specialized Research Centers (MDSRC), one of the six in the country. The core mission of the Center is to rapidly develop genome editing into a viable and effective therapy for patients with Duchenne muscular dystrophy.

Dr. Mammen received his BSc in Bioengineering at the University of Pennsylvania and his MD at the University of Wisconsin-Madison. He completed his Internal Medicine Residency at the University of Iowa Hospitals & Clinics and completed Fellowships in General Clinical Cardiology, Molecular Cardiology, and Clinical Heart Failure/Cardiac Transplantation at UT Southwestern Medical Center. His long-term scientific goal is to continue evolving into a national leader in biomedical innovation and discovery in order to improve the quality and longevity of patients with heart failure, especially as it relates to cardiac/skeletal muscle myopathies. He runs a molecular cardiology laboratory that has been continuously funded by various federal (NIH), private (AHA) and industry (Catabasis Inc., GlaxoSmithKline Research Foundation, and PhaseBio Inc.) granting agencies. His molecular laboratory focuses on mechanistic studies to enhance our understanding of various signaling pathways that contribute to heart failure and cardiac/skeletal muscle myopathies. In particular, his research team is investigating the role of redox signaling to enhance the understanding of myogenesis, muscle regeneration, and cardiac/muscle remodeling.

Dr. Mammen has served as a GWG member for almost 6 years. He reviewed for the Translational and Clinical stage program awards, Infrastructure program awards and COVID-19 reviews.

William Matsui, MD
William Matsui is a Professor of Oncology, Director of the Hematologic Malignancy Program, Associate Chair of Research, and the Deputy Director of the LiveSTRONG Cancer Institutes at the Dell Medical School and the University of Texas at Austin. Prior to his arrival at the University of Texas at Austin in 2018, Dr. Matsui was a Professor of Oncology at the Johns Hopkins University School of Medicine and served as the Director of the Multiple Myeloma Program and co-Director of the Division of Hematologic Malignancies. Dr. Matsui is a clinician scientist and cares for adult patients with blood cancers, specifically leukemias, lymphomas, and multiple myeloma. Dr. Matsui has carried out laboratory-based translational research throughout his career and focused on understanding the intersection between cancer, stem cell, and developmental biology. His laboratory first identified unique populations of cancer cells with stem cell properties in the plasma cell malignancy multiple myeloma soon after joining the Hopkins faculty in 2002. He then extended his studies to other cancers including lymphomas, leukemias, and pancreatic cancer. Dr. Matsui's laboratory has also found that several pathways regulating normal stem cells, including those involved in embryonic development, are abnormally activated in cancer stem cells. Importantly, these basic research studies have simultaneously been translationally relevant and served as the basis for over a dozen novel clinical trials.

Dr. Matsui received his undergraduate degree in Biochemistry from Harvard College and his medical degree from the University of California at San Francisco. He completed his residency training in Internal Medicine at the University of Washington in Seattle and clinical fellowship training in Medical Oncology at Johns Hopkins. Dr. Matsui's work has resulted in over 130 peer-reviewed publications and been supported by the National Institutes of Health and several foundations, including the Leukemia and Lymphoma Society, the Multiple Myeloma Research Foundation, and the International Myeloma Foundation. Throughout his career, Dr. Matsui has been deeply committed to training and mentoring junior investigators. He established the Junior Faculty Mentoring Program in the Department of Oncology

at Johns Hopkins that subsequently became a model across the entire medical school, and several of his mentees currently hold faculty positions at various academic institutions across the US.

Dr. Matsui has served as a GWG member for almost 12 years. He has reviewed for the Clinical, Translational, Discovery and Education programs as well as Disease Team Research awards, Research Leadership awards, and Tools and Technologies awards.

Theodore Rasmussen, PhD
Dr. Theodore Rasmussen is Associate Professor of Pharmacology & Toxicology in the Department of Pharmaceutical Sciences at the University of Connecticut and a charter member of the University Connecticut Stem Cell Institute and the Institute for Systems Genomics at the University of Connecticut. He also holds a joint academic appointment in the Department of Molecular and Cell Biology. His research interests include personalized medicine using stem cells, cell-based therapeutics, nuclear reprogramming and epigenetics, and cell-based screens and assays. In addition, he works on the differentiation of human pluripotent cells to endodermal lineages including hepatocytes and biliary epithelial cells. The overall goal of his lab is to bring about advances in cell-based therapeutics through approaches drawn from stem cell biology, epigenetics, proteomics, and molecular genetics.

Dr. Rasmussen earned his B.S. in Biology at the University of Washington at Seattle and received his PhD in Genetics at the University of Wisconsin at Madison, where he studied processing of nuclear RNA. He then completed a postdoctoral fellowship at the Whitehead Institute at the Massachusetts Institute of Technology, where he performed research on X chromosome inactivation and embryonic stem cell biology. Dr. Rasmussen helped to establish a stem cell research program in the state of Connecticut. He teaches genetics and stem cell science at undergraduate and graduate levels and frequently participates in forums and panels that discuss stem cell research and ethics for the public. Dr. Rasmussen participates in grants review for international funding agencies and is also active in peer review for major scientific journals.

Dr. Rasmussen has served as a GWG member for about 12 years. He has reviewed for the Discovery and Education programs, Research Leadership awards, and COVID-19 awards.

Janet Rossant, PhD
Dr. Janet Rossant is Senior Scientist Emeritus at the Research Institute of The Hospital for Sick Children in Toronto, Canada, and President and Scientific Director of the Gairdner Foundation. She is also a Professor in the Department of Molecular Genetics at the University of Toronto. She is a leader in mammalian developmental and stem cell biology. Her research centers on understanding the genetic control of normal and abnormal development in the early mouse embryo using both cellular and genetic manipulation techniques. Her interests in early embryo led to the discovery of a novel placental stem cell type, the trophoblast stem cell.

Dr. Rossant trained in Zoology and Mammalian Development at the Universities of Oxford and Cambridge, United Kingdom, and has been in Canada since 1977, first at Brock University and then at the Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, from 1985 to 2005. She joined the Hospital for Sick Children in 2005 as its Chief of Research. Among many honors, she has received the International Society for Stem Cell Research (ISSCR) Achievement Award for her major impact on the field of stem cell and regenerative medicine, CIHR Michael Smith Prize in Health Research(Canada's most prestigious health research award), the Canada Gairdner Wightman Award (for extraordinary leadership paired with exceptional science), and the Conklin Medal from the Society for Developmental Biology (for extraordinary research contributions to the field and excellent mentorship towards of the next generation of outstanding scientists). She is a Fellow of both the Royal Societies of London and Canada and an International Member of the National Academy of Science.

Dr. Rossant served as a GWG member for 10 years. She reviewed Discovery stage program applications (Basic Biology), Tools and Technologies applications, and Research Leadership awards.

Megan Sykes, MD
Dr. Megan Sykes is the Michael J. Friedlander Professor of Medicine and Professor of Microbiology & Immunology and Surgical Sciences (in Surgery) at Columbia University, Director of the Columbia Center for Translational Immunology at the Columbia University College of Physicians and Surgeons, Director of Research for the Transplant Initiative at New York-Presbyterian Hospital, and Director of Bone Marrow Transplantation Research in the Division of Hematology/Oncology at Columbia University Medical Center. Dr. Sykes' research is in the areas of hematopoietic cell transplantation, achievement of graft-versus-leukemia effects without GVHD, organ allograft tolerance induction, xenotransplantation and Type 1 diabetes. Major efforts in her lab include both pre-clinical and clinical studies of non-

myeloablative hematopoietic cell transplantation to improve the induction of allograft tolerance and extend it to other graft types besides the kidney. A recent new direction for her lab is the analysis of lymphocyte turnover, chimerism and T cell trafficking in patients receiving intestinal and liver transplants.

Dr. Sykes earned her MD at the University of Toronto, completed her internship at Montreal General Hospital, and completed her residency at Toronto General Hospital and Toronto Western Hospital. To date, she has published more than 472 papers and book chapters. Dr. Sykes and her team have developed novel strategies for achieving graft-versus-tumor effects without graft-versus-host disease following hematopoietic cell transplantation (HCT), and her lab has pioneered minimal conditioning approaches for using HCT to achieve allograft tolerance. She developed an approach that has been evaluated in clinical trials of non-myeloablative haploidentical HCT whose safety and efficacy allowed trials of HCT for the induction of organ allograft tolerance, with the first intentional achievements of this outcome. Her work on xenogeneic thymic transplantation for tolerance induction led, for the first time, to long-term kidney xenograft survival in non-human primates. Among many awards and honors, she received the Medawar Prize for her outstanding contributions in the field of transplantation. Dr. Sykes has served as President of the International Xenotransplantation Association and Vice President of The Transplantation Society. She is a member of the National Academy of Medicine, a member of the Association of American Physicians, a Fellow of the American Association for the Advancement of Science, and a Distinguished Fellow of the American Association of Immunologists.

Dr. Sykes served as a GWG member for 10 years. She reviewed for the Discovery stage program awards (Basic Biology).

Viviane Tabar, MD
Dr. Viviane Tabar is the Chair of the Department of Neurosurgery and the Theresa C Feng Professor in Neurosurgical Oncology at Memorial Sloan Kettering Cancer Center in New York. She is a neurosurgeon and a scientist with a focus on stem cell biology.

Dr. Tabar's surgical practice is focused on primary brain tumors and tumors of the skull base. Her research is focused on harnessing the regenerative potential of human stem cells towards repairing the brain. Her lab portfolio includes the development of human pluripotent stem cell-derived dopamine neurons for Parkinson's disease now in a Phase I clinical trial, as well as therapies for chemotherapy and radiation therapy-induced brain injury. The lab has also pioneered the use of human embryonic stem cell-based models of brain tumors. Dr. Tabar is a member of the of the American Society for Clinical Investigation and the National Academy of Medicine.

Dr. Tabar served as a GWG member for 12 years. She reviewed for Discovery stage and Translational stage program awards, Alpha Stem Cell Clinic awards, Research Leadership awards, and Disease Team Therapy awards.

Amy Wagers, PhD
Dr. Amy Wagers is the Forst Family Professor of Stem Cell and Regenerative Biology at Harvard University, Senior Investigator in the Section on Islet Cell and Regenerative Biology at the Joslin Diabetes Center, Co-Chair of the Department of Stem Cell and Regenerative Biology at Harvard, and a member of the Paul F. Glenn Center for the Biology of Aging at Harvard Medical School. Her research focuses on defining the factors and mechanisms that regulate the migration, expansion, and regenerative potential of adult blood-forming and muscle-forming stem cells in order to exploit their potential for the treatment of diseases such as cancer, anemia, muscular dystrophy, and diabetes. Current research in her laboratory includes therapeutic editing of stem cell genomes in vivo and identifying cell autonomous and non-autonomous mechanisms underwriting stem cell dysfunction in aging and cancer.

Dr. Wagers earned her PhD in Immunology and Microbial Pathogenesis from Northwestern University, and completed postdoctoral training in stem cell biology at Stanford University. She has authored over 150 primary research and review articles, and her work has been recognized by awards from the Burroughs Wellcome Fund, Beckman Foundation, WM Keck Foundation, and Glenn Foundation, and National Institutes of Health. She has served on the State of Connecticut Stem Cell Research Advisory Committee and participated in several public education projects. In 2013, she received the New York Stem Cell Foundation's Robertson Prize for outstanding achievement in translational stem cell research and in 2018 received the NIH Pioneer Award for "High-Risk, High-Reward Research."

Dr. Wagers served as a GWG member for 10 years. She reviewed for the Discovery stage program awards (Basic Biology), Translational stage program awards, and Research Leadership awards.

Juan Carlos Zúñiga-Pflücker, PhD
Dr. Juan Carlos Zúñiga-Pflücker is Professor of Immunology and Chair of the Department of Immunology at the University of Toronto. He is also Senior Scientist in Biological Sciences for the Odette Cancer Research Program, and Director for the Sunnybrook Research Institute Centre for Cytometry and Scanning Microscopy. Dr. Zúñiga-Pflücker has over 20 years of experience with immunology and various stem cells. He has numerous areas of research interests, but there is common theme related to T cell development from hematopoietic stem/precursor cells, immune cell signaling related to the formation of T cell precursors, and the in vitro generation of immune cell progenitors from pluripotent stem cells. In addition to developmental immunology research, he is an active member of the CanCURE (Canadian HIV Cure Enterprise) research consortium.

Dr. Zúñiga-Pflücker earned his BSc in Zoology from the University of Maryland and his doctorate in Genetics - Immunology from George Washington University. He completed his postdoctoral fellowship at the NIH National Institute of Allergy and Infectious Disease (NIAID) where he continued his studies in molecular immunology. Upon completion of his postdoc, Dr. Zúñiga-Pflücker became an Assistant Professor in the Department of Immunology at the University of Toronto. He was promoted to an Associate Professor in 1999, and also became a Senior Scientist at the Sunnybrook Research Institute (SRI) in 2001. From 2004-present, he was promoted to Professor of Immunology at the University of Toronto and was named Chair of the Department of Immunology in 2012. He has served as the Director for the Advance Regenerative Tissue Engineering Centre, served as the Section Editor for *The Journal of Immunology*, and served as president of the Canadian Society for Immunology. He was honored with the 2020 AAI Distinguished Service Award for the invaluable service he provided to American Association of Immunologists. He has also received numerous research awards including the Canadian Society for Immunology's Investigator Award. Dr. Zúñiga-Pflücker has over 150 peer-reviewed publications, including research published in *Nature, Nature Immunology, Blood,* and *Journal of Immunology*, serves on numerous professional societies and NIH study sections, and is the recipient of various grants from the NIH and Canadian Institutes of Health Research.

Dr. Zuniga-Pflucker has served as a GWG member for almost 6 years. He reviewed for the Discovery stage program awards, Tools and Technologies awards, and COVID-19 awards.