

**CIRM Scientific and Medical Research Funding Working Group  
Biographical information of candidates nominated to serve as Alternate Scientific  
Members of the Working Group**

**Jeff Bulte, PhD**

Dr. Jeff Bulte is Director of Cellular Imaging at the Institute for Cell Engineering and Professor in the Department of Radiology at Johns Hopkins University. Prior to joining Johns Hopkins University in 2001, he spent ten years at the Laboratory of Diagnostic Radiology Research at the National Institute of Health where he pioneered the development of a labeling technique based on magnetic resonance imaging to track the distribution of stem cells implanted into a living animal. In 2005 this technique, which labels cells with iron oxide particles, was successfully used in tracking mesenchymal stem cells to monitor their progress in repairing tissue scarred by heart attack. This is believed to be the first demonstration of how this technique can be used to assess the clinical benefit of cell-based therapies.

Dr. Bulte received his PhD from the University of Groningen in The Netherlands and is a Senior Founding Member of the American Academy of Nanomedicine, also serving on the Philips Medical Systems Advisory Board as well as several editorial boards of scientific journals, including Current Stem Cell Research and Nanomedicine. He has authored over 100 journal articles and book chapters and holds several U.S. patents on the use of reporter agents and delivery systems for magnetic resonance-based imaging. He participates on grant review panels for the National Multiple Sclerosis Society, the Department Of Energy, the National Academy of Sciences, and the National Institutes of Health.

**Charles ffrench-Constant, PhD, FRCP**

Dr. Charles ffrench-Constant, Fellow of the Royal College of Physicians (FRCP), is a Professor of Neurological Genetics and a Wellcome Trust Research Leave Fellow at the University of Cambridge Centre for Brain Repair. An internationally recognized expert in brain development and how disease results from its dysfunction, Dr. ffrench-Constant is a member of the Cambridge Stem Cell Initiative to accelerate basic research in stem cell developmental biology and to translate research results into effective applications in regenerative medicine by stimulating novel collaborative and interdisciplinary approaches. He also chairs the U.K.'s Action Research Charity scientific advisory panel and is a member of the U.K. Medical Research Council Neurosciences panel. He is Principal Investigator of the Cambridge Center for Myelin Repair, a center of research excellence dedicated to promoting myelin repair in people with multiple sclerosis, and leads an international team focused on the biology and development of oligodendrocytes in order to enhance the body's ability to repair myelin. Originally trained in medicine at Cambridge, Dr. ffrench-Constant completed a Neurology residency at the University College London Hospitals before becoming accredited in Clinical Genetics with a special interest in Neurogenetics. He earned a PhD in neuroscience at the University College London.

**Douglas A. Kerr, MD, PhD**

Dr. Douglas A. Kerr is the director of the Transverse Myelitis Center focusing on comprehensive evaluations of this devastating disease, in addition to his role as Associate Professor of Neurology, of Cellular and Molecular Medicine, and of Molecular

Microbiology and Immunology at Johns Hopkins University. His research strives to determine the causes of Transverse Myelitis and to develop new treatment options. Dr. Kerr also focuses on stem cells as a potential source of therapy for functional recovery in patients with Transverse Myelitis and motor neuron disorders. In 2004, Dr. Kerr was honored by Christopher Reeve and The Spinal Cord Injury Project as a 'Hero of Hope' for his work on spinal cord regeneration. He plays an active political role in supporting stem cell research across the nation. In 2005 he was invited to give testimony to the State Senate and House of Representatives for the Maryland Stem Cell Act, and to the US Senate Subcommittee for the Expansion of Federal Funding of Human Embryonic Stem Cell Research in 2005 / 2006.

Dr. Kerr's research is supported by the National Institutes of Health, the Muscular Dystrophy Association, the Parkinson's Disease Foundation, and the Packard Center for Amyotrophic Lateral Sclerosis Research at Johns Hopkins University. He directs Project RESTORE, a Johns Hopkins-based undertaking to advance therapies for Transverse Myelitis and Multiple Sclerosis. After receiving both his MD and PhD from Jefferson Medical College at Thomas Jefferson University in Philadelphia, Dr. Kerr completed an internship in medicine in Philadelphia followed by residency in Neurology at the Johns Hopkins Hospital in Baltimore. He currently runs an active research program, sees patients at The Johns Hopkins Outpatient Center in Baltimore and teaches Stem Cell Biology and Applications, Advanced Virology and Neurology.

**Joanne Kurtzberg, MD**

Dr. Joanne Kurtzberg is Professor of Pediatrics and Director of the Pediatric Bone Marrow and Stem Cell Transplant Program at Duke University Children's Hospital and Health Center. The Pediatric Bone Marrow and Stem Cell Transplant Program is recognized nationally and internationally as a leader in both established techniques and research initiatives. Under her direction, the program has performed over 800 autologous and allogeneic transplants in children with cancer or genetic diseases since 1990. In 1993, Dr. Kurtzberg pioneered the use of unrelated umbilical cord blood transplants for children with resistant cancers and rare metabolic diseases, performing the first unrelated cord blood transplant. Her team has performed more cord blood transplants than any other group, saving the lives of more children with cancers and rare genetic diseases than any other center in the world. In 2005, her group demonstrated that children with Krabbe disease, a fatal genetic disorder can be saved and their brain development preserved if they receive stem cells from umbilical cord blood before symptoms of the disease develop.

Dr. Kurtzberg received her medical degree 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. She conducts both clinical and laboratory-based translational research on normal and malignant hematopoiesis, and currently holds INDs for phase I studies of therapy for novel anti-leukemic agents. In the laboratory, she focuses on mechanisms that regulate pathways of differentiation by hematopoietic stem cells. In the clinic, Dr. Kurtzberg is active in the Children's Oncology Group, coordinating a high risk study for children with newly diagnosed B-lineage acute lymphoblastic leukemia (ALL) as well as relapsed studies for children with T- and B-lineage ALL. Finally, Dr. Kurtzberg is investigating the use of banked umbilical cord blood as an alternative stem cell source for unrelated marrow transplantation.

**Thomas A. Reh, PhD**

Dr. Thomas A. Reh received his PhD in Neuroscience from the University of Wisconsin-Madison in 1981. Following postdoctoral and lectureship positions at Princeton University, he joined the Department of Medical Physiology at the University of Calgary as an Associate Professor. He is currently Professor of Biological Structure at the University of Washington School of Medicine where he also serves as Director of the Neurobiology and Behavior Program.

Dr. Reh's laboratory studies retinal development and retinal regeneration, with the goal of applying the principles learned from developmental biology to design strategies for promoting retinal regeneration in the adult mammalian retina. In 2006, he and his colleagues reported that they can reliably make retinal cells from embryonic stem cells. Experiments are now aimed at implanting these cells into blind animals to see if they can restore vision.

Supported by grants from the National Institutes of Health as well as private foundations, Dr. Reh has served on numerous national and international grant review panels and has published over 100 journal articles, reviews and books. He has been the recipient of many awards for his work, including the Grass Foundation and Jerzy E. Rose Awards, and the Heritage Foundation and Alfred P. Sloan Scholar awards. Dr. Reh is a member of the Scientific Advisory Board of the Foundation Fighting Blindness and for Acucela Inc., a clinical stage biotech company discovering new drug therapies for neurodegenerative retinal diseases such as macular degeneration, Stargardt's disease, retinitis pigmentosa and glaucoma.

**Glyn Stacey, PhD**

Dr. Glyn Stacey is Director of the United Kingdom's Stem Cell Bank, established with funding from the Medical Research Council and the Biotechnology and Biological Sciences Research Council. The goal of the Stem Cell Bank is to provide a repository for human stem cell lines of all types, and to supply well-characterized cell lines under appropriate and accredited quality systems both for basic research and for the development of clinical applications. In addition to his role as Director of the Stem Cell Bank, Dr. Stacey is head of the Division of Cell Biology and Imaging at the National Institute for Biological Standards and Control (NIBSC) in the United Kingdom, and serves as a visiting Professor at the University of Luton.

Early in his scientific career, Dr. Stacey's research involved microbiology and cancer research, and his interests were primarily in the field of cell biology relating to genetic stability, safety issues and standardization. This work led to his involvement in a range of related areas including plant tissue culture, cell preservation and management of biological resources. From 1989 -1998 he worked at the Center for Applied Biology and Research where he developed procedures for cell culture and cell banking. He also played a lead role in establishing a cell biology unit working on the development of cell substrates for manufacture of medical products and cell-based diagnostic assays. Part of Dr Stacey's initial work at NIBSC was focused on creating a new suite of clean-room laboratories designed to operate under Good Manufacturing Practice accreditation for cell banking. At NIBSC Dr. Stacey is focused on the development of appropriate cell biology activities relevant to the quality and safety of new biological medicines and therapies based on the use of human and animal cells. In addition to an active research portfolio in this area, Dr. Stacey has served as an advisor to the United Kingdom's Department of Health and to the World Health Organization, and was a member of the consultation group that drafted the United Kingdom's Code of Practice for the Production

of Human-derived Therapeutic Products. Dr. Stacey has organized the NIBSC Stem Cell Liaison Group, which provides an open forum for discussion amongst a variety of health care workers on safety and quality issues in the preparation of harvested hematopoietic stem cells for transplantation.

**Charles D. Stiles, PhD**

Dr. Charles D. Stiles, Professor of Microbiology and Molecular Genetics at Harvard Medical School is currently the deputy director of the Mahoney Center for NeuroOncology and co-chair of the Department of Cancer Biology at the Dana-Farber Cancer Institute. He is a lead investigator of the prestigious Nervous System Diseases Program through the Harvard Stem Cell Institute, and serves on the Scientific Advisory Board for the Brain Tumor Society and the Sontag Foundation, a charitable foundation focused on brain cancer and rheumatoid arthritis.

After receiving his PhD from the University of Tennessee at the Oak Ridge National Laboratories, and following postdoctoral research at the University of California, San Diego, Dr. Stiles joined the faculty of Harvard Medical School and the Dana-Farber Cancer Institute where he currently conducts research on brain cancers and brain development. His investigations are supported by the National Multiple Sclerosis Society, the Brain Science Foundation and the National Institutes of Health. In 2002, work by Dr. Stiles and colleagues led to a fundamental shift in our understanding of how myelin-producing cells are related to other cells of the central nervous system. Their observation that oligodendrocytes are more closely related to motor neurons than astrocytes has led to seminal contributions and insights into diseases such as brain cancer, multiple sclerosis, and mental retardation. In his career, Dr. Stiles has authored over 135 articles on growth factor signaling, neural development and brain cancer, and has received awards from the American Cancer Society, the American Association for Cancer Research, and the Roswell Park Memorial Institute. His fundamental work on the genetics of brain development conducted under the auspices of brain cancer research could have positive impacts on health problems outside the cancer field, including childhood mental retardation, Alzheimer's disease, and schizophrenia.