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

Christopher Breuer, MD

Christopher Breuer is Associate Professor of Surgery and Director of Tissue Engineering at Yale University School of Medicine. Dr. Breuer received his BA in Biology from College of the Holy Cross and his MD from Brown/Dartmouth. He completed an internship and residency in general surgery, a junior residency in pediatric surgery, a postdoctoral fellowship in surgical research, and was Chief Resident in both general surgery and pediatric surgery. Dr. Breuer is board certified in general surgery and pediatric surgery.

Dr Breuer's research interests focus on the development of improved vascular grafts for use in congenital heart surgery where complications arising from currently used vascular grafts are a leading cause of morbidity and mortality. He runs an NIH funded laboratory investigating the cellular and molecular mechanisms underlying vascular neotissue formation in tissue engineered vascular grafts. He is the principal investigator on the first FDA approved trial investigating the use of tissue engineered vascular grafts in humans. Dr. Breuer's clinical interests include minimally invasive and laparoscopic surgery for neonates, newborns, infants and children; neonatal surgery, including prenatal consultation, fetal intervention and postnatal surgical care; extracorporeal membrane oxygenation (ECMO); esophageal atresia; necrotizing enterocolitis; intestinal atresia; pediatric cardiac surgery; and pediatric thyroid and parathyroid surgery.

May Griffith, PhD, MBA

Dr. Griffith is Professor of Regenerative Medicine and Director of the Integrative Regenerative Medicine (IGEN) Centre at the Linköping University in Sweden and Adjunct Professor in the Department of Cellular & Molecular Medicine at the University of Ottawa. Dr. Griffith received her BS in zoology and human biology, her MS in zoology, and her PhD in anatomy at the University of Toronto. She received her MBA at the University of Ottawa.

Dr. Griffith's research interests are in biomaterial enhanced or enabled cell-based regeneration. She has been focusing on the development of biosynthetic alternatives to human donor corneas to meet a worldwide shortage of good quality donor tissue for corneal transplantation. In 2010, Dr. Griffith's laboratory published the two-year follow-up results from implantation into 10 patients of cell-free biosynthetic corneal implants fabricated from crosslinked recombinant human collagen as alternatives to donor human tissues. In this phase I clinical trial, the implants stimulated the endogenous regeneration of corneal tissues, nerves and tear film production. Because no exogenous cells were introduced, there was significantly less inflammation observed that in donor allografts. This was the first-in-human report of corneal regeneration enabled by the use of integrative materials, as human corneas normally do not regenerate on their own. Her biosynthetic and biomimetic materials have also been successfully tested in collaboration with other researchers for use in cartilage and cardiovascular regeneration.