



Friends of Doernbecher
at Oregon Health & Science University

GRANT RECIPIENTS

2009-2010

For eleven years, the Friends of Doernbecher have funded a grant program that awards \$75,000 annually to Doernbecher faculty or staff to pursue research or develop projects and programs at the hospital. In many cases, this kind of initial funding can get a project underway and provide a platform and track record, which will assist in securing longer-term funding from the National Institutes of Health or other sources. Congratulations to the recipients of the 2009-2010 Friends Grants!

The Center for Pediatric Pharmacology and Therapeutics at Doernbecher Children's Hospital

Awarded to: Amira Al-Uzri, MD, MCR

Amount Awarded: \$15,000

The mission of The Center for Pediatric Pharmacology and Therapeutics is to promote drug studies in children and advance the knowledge of how drugs work, get metabolized, and act in pediatric patients. The two main aims for the center are: (1) To be able to analyze drug levels and genetic testing in children using blood spots from filter papers like the ones used in newborn screening without the need for multiple needle sticks in the vein. (2) To be able to collect data about drugs in children using minimal numbers of blood samples by using specialized *population kinetic modeling*. Friends of Doernbecher funds will be used to establish The Center for Pediatric Pharmacology and Therapeutics (CPPT) and support its first study, in which data and blood samples collected from another study will be used to develop Tacrolimus assays using blood spots from filter papers. The data from the existing study will also be used to develop pediatric population kinetic models for Tacrolimus that will utilize a small number of blood samples. Establishing the CPPT in Doernbecher Children's Hospital will not only boost Doernbecher's regional and national stature, but will enhance our understanding of how drugs work in children and ultimately improve the quality of medical care provided to all children in Oregon.

Human Stem Cell Transplantation for Repair of Pediatric White Matter Disorders

Awarded to: Stephen Back, MD

Amount Awarded: \$30,000

White matter injury is a major cause of life-long neurological disability in children with cerebral palsy, spinal cord injury and a number of more rare but devastatingly fatal genetic disorders. Stem Cells Inc., in collaboration with Dr. Back, have shown in a newborn mouse model that human neural stem cells (hNSCs) are able to robustly repair white matter lesions through the generation of new myelin – a key component of the white matter that is needed to rapidly conduct information along nerve fibers throughout the brain and spinal cord. Dr. Back and his team will conduct a series of studies using the high-field strength MRA scanner at OHSU that are designed to demonstrate that: (1) human NSCs can robustly generate new myelin in juvenile animals at an age that is developmentally similar to the ideal age window to transplant the cells in pediatric patients; (2) that the human NSCs generate myelin faster in juvenile animals than in newborns; (3) human NSCs generate progressively greater amounts of new myelin over time that can be detected by MRI scanning. The over-riding objective of these studies is to use this data to support new clinical trials to test human NSCs for repair of pediatric brain injury.

Pediatric Emergency Simulation Program

Awarded to: Robert Cloutier, MD

Amount Awarded: \$30,000

The goal of the Pediatric Emergency Simulation Program is to improve the safety and quality of patient care of children throughout Doernbecher Children's Hospital and the region by utilizing simulation-

based education to train a diverse group of pediatric providers ranging from paramedics to physicians. The Institutes of Medicine and the Joint Commission have called for evidenced-based approaches to improving patient safety, and simulation has been demonstrated to be an effective method of training providers without putting patients at risk. New wireless technology allows simulation training to come to the learner so that our educational scenarios can take place in the locations where providers encounter children in clinical practice. Friends of Doernbecher funds will be used to purchase new simulation equipment in order to broaden the availability of the curricula developed by members of the Pediatric Emergency Medicine section. By extending Doernbecher's educational outreach to community providers, the program can increase their emergency preparedness and promote recognition of the new Doernbecher Pediatric Emergency Department.

Thank you to everyone who applied! Information for the 2010-2011 Grant program will be available in December. Contact Megan Bulger at bulgerm@ohsu.edu or call 503 220-8341 or 800 800-9583 with any questions.