



Friends of Doernbecher
at Oregon Health & Science University

For the past twelve years, the Friends of Doernbecher have funded a grant program that awards \$100,000 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 provides seed money to get project underway and provides 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 2011-2012 Friends Grants!

Dr. Kellie Nazemi

Project: Functional Discovery of Therapeutic Targets in Diffuse Intrinsic Pontine Glioma (DIPG)

Awarded: \$30,000

Diffuse Intrinsic Pontine Glioma (DIPG) is a uniformly fatal form of brain cancer in children and there are no curative treatments in spite of a multitude of prior clinical trials. Every year in the United States, approximately 200 children will be diagnosed with DIPG and die because of this disease, often within several months. Using biopsied tumor tissue donated by the family of a five year old DIPG patient, Dr. Nazemi and her team will study the conditions for DIPG tumor cell growth in culture and test the sensitivity of DIPG tumor cells to emerging, molecularly-targeted drugs. This is a pilot project and the first step in a larger vision of developing an innovative method for personalized and targeted treatment planning for children with brain tumors.

Dr. Michael Chiang

Project: Novel Imaging Methods for Retinopathy of Prematurity Analysis

Awarded: \$47,000

Retinopathy of Prematurity (ROP) is a vascular eye disease affecting low birth weight infants, and is the leading cause of childhood blindness throughout the world. In Oregon each year, there are over 600 premature infants at risk for developing ROP and over 100 of these infants are hospitalized at Doernbecher. With this funding, Dr. Chiang will develop an infrastructure to use novel imaging techniques in premature infants for use in a telemedicine setting. Telemedicine is a new and emerging technology where a remote expert captures medical data for interpretation. Computer-based algorithms for analyzing these images will also be developed. Extending previous work by Dr. Chiang, this project will improve clinical care and scientific understanding of ROP and will develop a web-based ROP image repository at OHSU.

Dr. Susan Lindemulder

Project: Cardiac MRI to Characterize Anthracycline-Induced Cardiomyopathy in Survivors of Childhood Cancer

Awarded: \$23,000

Childhood cancer survivors who receive chemotherapy drugs called anthracyclines are at risk for injury to the heart muscle. This heart damage may get progressively worse for many years after patients finish cancer treatment. In extreme cases, these drugs cause heart failure requiring heart transplant. With this funding, Dr. Lindemulder will study if the combination of a cardiac MRI and blood tests can detect subtle heart injury that is not seen on echocardiogram in survivors of childhood cancer. The ultimate goal of this research is to detect heart damage from anthracyclines earlier, so that patients can receive medical treatment that prevents the heart injury from worsening over time. This project is significant because it fosters a novel and valuable partnership between the fields of pediatric oncology and pediatric cardiology.