Pediatric Research Resources

Intermountain Injury Prevention and Control Center (IICRC): The goal of the IICRC, located at University Research Park, is to reduce the incidence and severity of injury in Public Health Service Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming). Established in 1996, the IICRC consolidates research and injury control activities that have been in place since 1992. The IICRC integrates the expertise of physicians, epidemiologists, biostatisticians, law enforcement, criminal justice system, toxicologists, health educators, and economists. This provides comprehensive analysis of the complex injury problems facing Public Health Services Region VIII, leading to identification of high-risk populations, strategies for preventive intervention, and methods of improving the outcome from injury.

Neonatal Research Network-Utah Center: In 1986, the NICHD initiated the NRN to conduct multi-center clinical trials and observational studies in neonatal medicine. Multiple clinical centers were incorporated to provide sufficient populations, ensuring adequate statistical power to detect clinically important differences. These centers provide representative demographics, rigorous background data, resources and interdisciplinary staffs, and a systematic process for developing studies. Additional strengths include the uniform conduct of trials, standardized data collection, quality assurance regarding data, high quality analyses, and long-term, consistent follow-up. The NRN-Utah Center, established in 2006, has 3 NICUs at 3 hospitals—PCMC, University of Utah, and LDS. Patient welfare is its first priority. It supports a data coordinating center (RTI: neonatal.rti.org); various committees (steering, standing, and project-specific); and resources for proposal development, avoiding conflicting studies, budget development and management, compliance issues, and contracts/agreements.

University of Utah Pediatric Pharmacology Research Program (PPP): The PPP was established in 1997 through collaboration between the college of Pharmacy and the Department of Pediatrics to address the insufficient study of medications in children. In 1999, the PPP expanded into a pediatric clinical trials program with a $247,000 start-up grant from the Primary Children’s Medical Center foundation. With this funding, clinical coordinators were hired and trained to coordinate medication studies for University faculty. The Program is led by Robert Ward, MD, a neonatologist and clinical pharmacologist and Jeanne Francis, RN, CCRC, and includes 5 study coordinators. The PPP has 3 major focuses: 1) clinical trial coordination of drug studies by pediatric faculty at the University; 2) NIH Pediatric Pharmacology Research Unit network grant; and, 3) PPP to support training clinical pharmacologists and pediatric clinical pharmacology research. Since 1999, the program has enrolled 817 pediatric patients, coordinated 69 studies by 21 faculties from 13 divisions within the University’s Health Sciences Center, and generated $4,400,217 in research revenue to the PCMC, UUMC, Pediatrics Department, and the Health Sciences Center.

Pediatric Pharmacology Research Unit Network (PPRU) Site: The PPRU Site was funded from 2004-2008 as 1 of 13 sites in the NIH Pediatric Pharmacology Research Unit Network. Total funding was $1,757,603. Principal Investigator Robert Ward, MD is boarded in Pediatrics, Neonatology, and Clinical Pharmacology. He is a member of the FDA Pediatric Advisory Committee; the prior Chair for the AAP Committee Drugs and consultant regarding PREA and BPCA provision; a member of the National Children’s Study Pharmacology Working Group; and organizer for national meetings including Neonatal Pharmacology (8th year-2008) and Neonatal Clinical Trials 1st year-2008).
Co-I Steven Kern, PhD is a bioengineer, pharmacokineticist who conducts anesthesia research. Dr. Kern was the interim Chair Pharmaceutics/Pharmaceutical Chemistry at the University’s College of Pharmacy from 2004-2006 and also is a Co-I for the PPRU. He is on sabbatical in Basel, SW with Novartis working on pediatric pharmacology study design and data analysis and will return in July 2008. He collaborates with Co-I Jennifer Forbey, PhD and PI Robert Ward, MD in pK analyses. Dr. Forbey, PhD (2007-2008) is conducting NONMEM analysis of morphine effects in children 3-18 years of age. She will be leaving to teach biology at Boise State in fall 2008. The Utah PPRU is the principal site for 2 studies: 1) methadone pK, safety, bioavailability study in neonates underway at the University and is expanding to other PPRU sites; and 2) a study of morphine pK and its efficacy in 3 to 18 year-olds in the PICU. It is a collaborating site with 14 non-Utah studies, 5 University of Utah studies, and 3 studies that collaborate with other NIH networks.

The National Children’s Study: The University of Utah/Department of Pediatrics is one of the leaders of the National Children’s Study, the largest long-term study of children’s health and development ever to be conducted in the United States. Department Chair Edward B. Clark, MD is the Principal Investigator for the study. In 2005, the Department of Pediatrics was awarded $16,002,852 to fund Salt Lake County as one of seven Vanguard Centers across the nation. In 2007, the Department was awarded $14,469,760 to support an additional Study location in Cache County, UT. In 2008, the department was awarded $18,123,781 to support the Tri-County location of Bear Lake County, ID and Lincoln and Uinta Counties, WY. We anticipate competing for a fourth location in Apache County, AZ in the near future.

This longitudinal Study will enroll a cohort of 100,000 children and identify environmental and individual susceptibility factors for asthma, birth defects, dyslexia, attention deficit/ hyperactivity disorder, autism, schizophrenia, obesity, and other adverse birth outcomes. Environmental exposures (chemical, physical, biological, and psychosocial) will be assessed during pregnancy and throughout childhood to age 21. Genetic material will be collected and stored to analyze gene-environment interactions. Unlike studies that seek answers to a single question, the NCS will address multiple questions to provide as much information as possible. It will provide sufficient data to researchers, health care providers, educators, and others who work with children, to develop prevention strategies, health and safety guidelines, educational approaches, and, possibly, new treatments and cures for health conditions.