

College of Medicine



Supporting and promoting the highest standards of scientific research, ensuring the long-term health and well-being of Saskatchewan children Today, medical research is a sophisticated and dynamic part of the technological boom that is resonating all around us. It is no longer a question of if we will triumph over childhood disease, but when.

Technological and scientific progress is mirrored in our children's improved quality of life: a son, the hockey star, safe from polio and other diseases that are now preventable; a granddaughter, the star of her school play, a survivor of childhood leukemia.

Through ongoing research and dedicated teamwork, many more diseases afflicting children will be effectively controlled, prevented or completely eliminated.

The Children's Health Research Trust Fund and its many supporters recognize, however, that despite the many medical science discoveries that have helped improve and protect children's health, more work needs to be done to tackle the many concerning challenges that remain.

Children's Health Research in Saskatchewan

The serious consequences of childhood disease provide an important impetus for dramatically increasing children's health research in Saskatchewan. Childhood disease can

- adversely affect a child's growth and development,
- interfere with a child's quality of life and productivity, and
- add stress to a child's family, and to society as a whole.

Expert and dedicated care for children through highly productive health research is a well-established tradition in this province. The Department of Pediatrics, University of Saskatchewan, was established more than 50 years ago and is currently undergoing rapid expansion. New faculty members with varied interests and expertise are collaborating with scientists from many different disciplines to initiate children's health research programs. This research is crucial to

- increase knowledge and understanding of childhood diseases,
- develop new forms of therapy, and
- promote more effective prevention strategies.

One important project supported by the Children's Health Research Trust Fund will study the earliest origins of health and disease.



What is the purpose of the research?

This project will study the effect that inflammation occurring during pregnancy has on the development of certain diseases in the offspring later in life. Inflammation is a complex response of the body to irritation, injury, or infection; when it occurs on the skin, for example, we recognize it as pain, redness, and swelling. Similar reactions can occur in other organs and tissues. We believe there are circumstances occurring during pregnancy that cause inflammation and might affect the developing fetus in a way that leads to future diseases in which inflammation plays a role.

We will study how increased inflammation influences the occurrence of premature birth, future obesity, diabetes, and diseases of the heart and blood vessels, the nervous system, the lungs and the immune system. This will be the first study to thoroughly investigate the role of inflammation during pregnancy as a factor that could lead to future disease in the offspring.

Why is this study important?

The results of this study will have important implications for disease treatment and prevention. For example, research results are expected to provide information to help prevent premature labour in some women and to help understand, treat and prevent many other diseases that occur later in life including, as examples, allergies, arthritis, autism, diabetes, heart disease, and conditions associated with obesity.

Who is doing this study?

This study is being led by a team of researchers affiliated with the University of Saskatchewan in association with collaborators from elsewhere in the country. Researchers include pediatricians, obstetricians, nurses, nutritionists, physical therapists, psychologists, biochemists, toxicologists and geneticists.

How is this study being funded? This important study is possible due to the generosity of contributors to the Children's Health Research Trust Fund in partnership with other funding agencies.

Special Funds

The continuing generosity and demonstrated support of donors allow the Children's Health Research Trust Fund to care for children through ongoing research. In addition to a general funding pool, a number of special funds support research relating to specific pediatric health care concerns.

The Adolf Polisiuk Research Fund encourages research relating to Sudden Infant Death Syndrome, perinatal and neonatal medicine, and studies for which obstetrical and pediatric collaboration is required.

The Idy Leonoff Research Fund supports research relating to childhood cancer.

The Kiera Goertz Research Fund supports research by individuals representing health care disciplines concerned with children with heart disease and their families.

The Ludwig, Olga and Constance Kaye Research Fund supports research about the effects on children of infectious disease during their mother's pregnancy, particularly diseases that affect eyesight and/or hearing.

The Tamara Esther Avivi Research Fund facilitates research to improve the understanding, treatment and prevention of childhood asthma and allergic disorders.

The Richardson Research Fund promotes research that would lead to new therapies and cures for neurological disorders such as spinocerebellar degeneration and other forms of cerebellar ataxia.



For more information please contact:



C/O Department of Pediatrics

Royal University Hospital 103 Hospital Drive, Saskatoon, SK, Canada S7N OW8 Phone: (306) 966-8150 Fax: (306) 975-3767 Email: alan.rosenberg@usask.ca www.medicine.usask.ca/pediatrics/chrtf





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