Canoe Study Timeline
Childhood Allergy and the Neonatal Environment

**Data and Sample Collection**

**Surveys**
- Surveys completed at enrollment, each study visit and each phone call or online.

**Additional Components**
- 2, 12 & 36 Months
  - In-home dust collection kits

**Child Sample Collection**
- **Birth**
  - Nasal Swab, Skin Swab, TEWL, Merconium (first stool)
- **2 Months**
  - Nasal Filter Paper, Stool
- **4 Months**
  - Nasal Collection, Urine, Skin Swab, Stool, Toenail Clipping, TEWL
- **12 Months**
  - Nasal Collection, Stool, Blood, Skin Swab, TEWL
- **24 Months**
  - Nasal Collection, Urine, Stool, Blood, Skin Swab, TEWL
- **36 Months**
  - Nasal Collection, Skin Swab, TEWL

**Prenatal**
- Blood, Urine, Stool, Hair, Toenail Clippings, Skin Swab

**Birth**
- Placenta, Cord Blood

**2 Months**
- Breast Milk, 1-time collection
Improving Maternal-Child Health Through Research

What do we learn from the data we collect?

**Survey and Phone Calls**
Maternal: Prenatal; Child: Infancy through Early Childhood
Individual information that is important for assessing health and study outcomes.

**Placenta and Cord Blood**
Maternal: Birth
The placenta plays a major role in pregnancy outcomes and can help us understand future health of mother and child.

**Blood**
Maternal: Birth; Child: Early Childhood
*Mother’s blood* collected close to the time of birth is examined for nutritional factors during pregnancy. *Child’s blood* will help determine allergic responses and provide other markers of health. Blood from the mother and child will also provide a DNA sample for genetic research.

**Breast Milk**
Maternal: Child’s Infancy
This sample will allow us to measure the combinations of proteins, fats, vitamins, and carbohydrates found in breast milk.

**Transepidermal Water Loss (TEWL) Test**
Child: Infancy through Early Childhood
Using a specialized instrument, we will measure the child’s skin moisture and hydration.

**Nasal, Skin Swab and Stool Combination**
Maternal: Prenatal
Child: Birth (meconium) through Early Childhood
The measurement of healthy bacteria that are naturally in/on the body is called the microbiome. These samples allow us to sample the microbiome and measure substances the body produces in response to the environment.

**Urine Collection**
Maternal: Prenatal
Child: Infancy through Early Childhood
The measurement of naturally produced substances in urine will help us learn how to predict health. These are known as “biomarkers”.

**Hair and Toenail Clippings**
Maternal: Prenatal
Child: Infancy through Early Childhood
These samples allow us to measure chemicals and other substances stored in hair and toenails that tell us about exposures over a long period of time.

**Wipe Kit/Home Dust Collection**
Child’s Home: Infancy through Early Childhood
Indoor particle sampling looks for normal substances found in the home. These particles are naturally occurring, present in all homes, and can impact our health.