Why is it that one group of women with similar racial and ethnic backgrounds experiences rates of preterm birth that are dramatically lower than another group with the same racial and ethnic characteristics? It’s a question that has confounded doctors and researchers for years, and it lies at the heart of what Dr. Irina Buhimschi, Director of the Center for Perinatal Research at The Research Institute at Nationwide Children’s Hospital, and Theme 5 leader, hopes to find out.

Because preterm birth results in a lifetime of health challenges, it impairs the quality of life of children and their families. In Ohio, one out of every eight babies is born preterm—more than 15,000 a year. The study funded by March of Dimes will enable Dr. Buhimschi’s team to attain their highest goal: for everyone to be born with equal opportunity.

It is one of the reasons Dr. Buhimschi became an obstetrician in the first place. “It is the only medical specialty where there is happiness and patients are mostly healthy,” says Dr. Buhimschi. “An obvious exception—preterm birth.

“We can put rockets on the moon but we don’t understand why or how nine months in utero makes a new person,” she adds. So she turned to research. “Practicing medicine allowed me to impact one person at a time; research allows me to impact a whole community.”

**WHY ARE PRETERM RATES OF SOMALI WOMEN IN U.S. SO LOW?**

African American women are twice as likely as women from any other racial or ethnic background to deliver a preterm baby. This racial disparity is well documented, but not well understood, as it remains an issue even when access to health care, behavior, education, or socioeconomic status are taken out of the equation.

There is, however, a minority population of African descent with a notably low rate of preterm birth, as low as or lower than women of European ancestry—Somas.

Ohio has the second largest Somali community in the country, with an estimated 45,000+ Somalis who have arrived in waves of refugees fleeing Somalia’s civil war. The large majority of women of Somali descent in Ohio live and work in Franklin County.

Because preterm birth is the birth of an infant prior to 37 weeks of pregnancy.

Why is this group the exception? That is what a multi-disciplinary team led by Dr. Buhimschi intends to find out. Because identifying what makes Somali women less susceptible to preterm birth will help develop strategies to improve outcomes for African American, and all, women. That is the “positive deviance” approach: to study what works so it can be replicated.

“We believe a variety of genetic, environmental and social factors are involved in preterm birth. From stress and resilience, to diet and lifestyle, to vaginal and gut bacteria, we will comprehensively study why Somali-American women have lower rates of preterm birth. Our hope is to develop an evidence-based plan of action for lowering rates of preterm birth in other populations,” said Dr. Buhimschi.

Partners in this research collaborative include Nationwide Children’s Hospital and The Ohio State University Wexner Medical Center; the University of Cincinnati and Cincinnati Children’s Hospital Medical Center; Case Western Reserve University and University Hospitals MacDonald Women’s Hospital and Rainbow Babies & Children’s Hospital; and MetroHealth System.
Moms and babies in the U.S. are facing an urgent health crisis:

- In this country 1 in 10 babies is born prematurely each year.
- Worldwide 15 million babies are born prematurely each year.
- Premature birth and its complications are the largest contributors to infant death in the United States and globally.
- More than 380,000 babies are born prematurely in the U.S. each year.
- In addition to the human toll, the societal cost of premature birth is more than $26 billion in the U.S. per year.
- Women of color are up to 50 percent more likely to give birth prematurely and their children can face a 130 percent higher infant death rate.
- In this country black women have maternal death rates over three times higher than women of other ethnicities.
- More than 20 percent of premature babies are born to black women—that’s 1 in 5 babies.
- Employers pay 12 times as much in health care costs for premature/low birthweight babies compared to babies born without these complications.

Because premature birth has many possible causes, each PRC is charged with exploring a different transdisciplinary research target that is likely to be crucial to the prevention of premature birth. To accomplish its goal the Ohio Collaborative has developed five interrelated theme areas, each bringing together renowned thinkers, researchers, physicians and top academics to focus on key aspects of the underlying causes of preterm birth.

For more information on how you can be a part of this effort please contact: 914.997.4492

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