For more than 75 years, the March of Dimes has been a powerful force for improving the health of infants, children and their families.

The March of Dimes was founded in 1938 by Franklin Delano Roosevelt to lead the fight to eradicate poliomyelitis. At the time, polio was a terrifying and mysterious childhood cripper that paralyzed tens of thousands, including FDR himself. In response, the March of Dimes mobilized an effort that was unheard of in the history of medical philanthropy. After funding a nearly 20-year effort to develop an effective vaccine and building a grassroots volunteer force second to none, the March of Dimes provided for the vaccination of hundreds of millions of children and adults. In doing so, the March of Dimes fulfilled its original charter: the practical elimination of polio in the United States and many other countries around the world. This now legendary accomplishment proved to be just the first of many.

This is what we do. This is what we’ve always done.

Identifying the fundamental causes and the solutions to the problem of premature birth is now the main research priority for the March of Dimes. We’re not looking merely for incremental advancements, either, but rather breakthrough research discoveries that will do for prematurity what the vaccine research we funded did for the eradication of polio.

This is something for which we have assembled the expertise to succeed, and something we have done before—in fact, since 1954, our investment in research has led to the awarding of the Nobel Prize to 13 different scientists whose original work was supported by our grants. Now, we’re putting everything we know about how to support scientific inquiry into this effort.

The March of Dimes Prematurity Research Centers.
Extraordinary effort in service of an extraordinary cause.

To reach our goal of solving the mystery of premature birth, the March of Dimes set about building the infrastructure that would facilitate the dynamic environment transdisciplinary research demands. This infrastructure would be comprised of existing centers of excellence in their own right, but when integrated with others, forms a framework for collaboration and discovery on a large scale.
March of Dimes Campaign To End Premature Birth Case Statement

This strategy of discrete research centers working together for a single goal represents the most focused, and the most diverse mobilization of scientific expertise ever brought to bear on the elimination of prematurity, combining experts in various fields—not just pediatricians, obstetricians and gynecologists, but physiologists, informaticians, sociologists, data analysts, internists, physicists, geneticists, engineers and technologists, many of whom had never even considered working on premature birth before.

One Cause. Five March of Dimes Prematurity Research Centers Connecting Multiple Research Themes.

Both the individual output of each of the five centers—Stanford University, the Ohio Collaborative, Washington University in St. Louis, the University of Pennsylvania, and the University of Chicago-Northwestern-Duke—and their aggregate effort will assure that all promising approaches to prevent premature birth will be explored.

We believe the critical mass of the collective output of these centers will lead us to one so-far elusive goal: the prevention of premature birth. The March of Dimes selected each of the centers on the basis of their expertise in particular areas, their proximity and access to tangential resources, and their connectivity—their ability to integrate their work with the complementary work being done by the other centers. Because we want each center to pursue the Research Themes we’ve laid out for them, their findings will inform and amplify the Themes the other centers are pursuing.

The Ohio Collaborative will pursue the following research themes:

- **Evolutionary Synthesis of Human Pregnancy.** The goal of this research theme is to build a computer-based infrastructure called the GEneSTATION that includes a repository of the evolutionary history that has shaped every human gene and genomic element relevant to preterm birth.

- **Genetics of Unique Human Populations.** Researchers will use the latest genetic sequencing and analysis technology to identify those genes associated with preterm birth and identity variations between normal populations and those predisposed to prematurity.

- **The Molecular Developmental Biology of Pregnancy.** Investigators will develop animal models to test gene and pathway discoveries emerging from other research themes and explore maternal-fetal signals that may lead to improved pregnancy outcomes.

- **Progesterone Signaling in Pregnancy Maintenance and Preterm Birth.** Explaining the mechanism by which
progesterone affects three critical areas of the uterus—in the uterine wall, the uterine cervix and the inner lining of the uterine wall will help identify therapeutic targets to prevent premature birth.

- **Sociobiology of Racial Disparities in Preterm Birth.** This research theme will test the hypothesis that racial disparities in preterm birth results from the overall impact of sociologic, environmental, and biomedical stressors moderated in individual psychosocial and physiologic resilience.

We want to give every baby a fighting chance.

No one knows what causes a woman to go into labor at a particular time, premature or otherwise. But we suspect premature birth has been around as long as human beings. At present, it is just as likely to occur in women who have had otherwise completely normal and healthy pregnancies, as in women who have known risk factors. Premature birth cuts across races, nationalities, cultures, ages, income and education levels, and geographies. It has multiple causes, exactly how many is anyone’s guess, and they probably interact in a yet to be determined number of ways.

But in one way or another, sooner or later, prematurity affects us all. It is a problem that speaks directly to who and what we are, and affects something so fundamental, so basic to our natures that we must all share in its resolution. Likewise, the answer to premature birth—and there will be an answer—will benefit us all. We will finally know, not just what causes premature birth, but normal births, too. That knowledge will translate to advances in nutrition, education, health care and an improved standard of living because a better start for some babies and their families means a better start for us all. So help us give every baby a fighting chance. Please join us in our cause to eliminate non-medically indicated premature birth. We at the March of Dimes, and millions of babies around the world about to be born too soon, are counting on you.

**For more information on how you can be a part of this effort, please contact**

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