



Florida Chapter National Research Grants

When Franklin D. Roosevelt founded the March of Dimes in 1938 he chose research to be one of the cornerstones of the effort to defeat polio. Seventeen years and \$25.5 million dollars in March of Dimes funded research later, the polio vaccine was declared safe and highly effective.

As the new century proceeds, our research investments continue to be one of the cornerstones of the March of Dimes mission. March of Dimes programs fund several different types of research, all aimed at preventing birth defects and infant mortality. These programs include basic research into life processes, such as genetics and development; clinical research applied to prevention and treatment of specific birth defects and prematurity; the study of environmental hazards; and research in social and behavioral sciences relevant to our mission. A number of these research grants are taking place right here in Florida.

Florida Gulf Coast University, Ft. Myers, Florida

Researcher: Lakshmi J. Gogate, Ph.D.

TITLE: A Longitudinal Study of Preterm and Full-Term Infants' Perception and Attention to Word-Object Pairings and Later Word Learning

This research study hopes to determine whether the ability to learn word-object pairings in preterm babies is delayed compared to full-term babies, and how this ability may predict language development. Babies must learn word-object relationships before they can learn word meanings, and a delay in this ability may lead to problems with language development. Preterm babies are at greater risk for developmental delays in language due to immature sensory and motor systems. If baby's ability to learn word-object relations predicts later language outcomes, it could help with earlier diagnosis and give the opportunity to provide services in time to prevent language delays.

Florida State University, Tallahassee, Florida

Researcher: Hong-Guo Yu, Ph.D.

TITLE: Regulation of Meiotic Recombination and Chromosome Segregation

This program is investigating the role of a protein (cohesin) in the orderly pairing and separation of chromosomes during meiosis, a specialized form of cell division that produces egg and sperm cells. Errors in meiosis can result in an embryo with too many or too few chromosomes, often leading to miscarriage or the birth of a baby with Down syndrome or other chromosomal birth defects. We hope to understand the underlying cause of chromosomal birth defects, as a step toward learning to prevent or treat them.

University of South Florida, Tampa, Florida

Researcher: Michael Fant, MD, Ph.D.

TITLE: PAC1 in Placental Development and Function

This research project is attempting to define the role of a gene (Plac1) in regulating the development of the placenta, to learn how abnormalities in this gene may contribute to poor placental growth and function. The placenta plays a crucial role in assuring normal fetal growth and development, and placental problems can lead to poor fetal growth and other pregnancy complications. The study also seeks to determine whether some maternal antibodies may increase the risk of pregnancy complications including miscarriage, preeclampsia, preterm labor and uterine infections. The ultimate goal of the study is to develop innovative treatments for these pregnancy complications.