

Stacy Drury, M.D. Ph.D.

Associate Director, Tulane Brain Institute
Vice Chair of Research/ Department of Pediatrics
Remigio Gonzalez MD Professor of Child Psychiatry

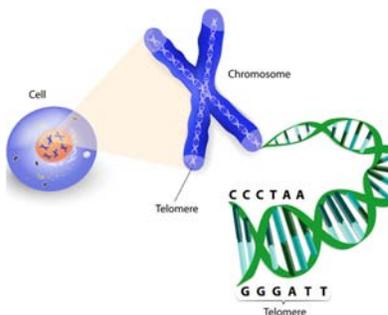
Brain Institute Research Groups

Brain-Body Health; Hormone-Brain Interactions;
Broad Research Goals

To better understand how the interaction between early life adversity with genetic and epigenetic factors influences child health and development. The lab also explores how caregiving and the broader community environment can provide protective buffering to children against the lasting negative effects of early life stress.

Research Overview

Early life, including the prenatal period, represents one of the most critical developmental time periods. During the first years of life the brain undergoes rapid changes, rapidly growing and changing to prepare the child for the experiences and environments that they expect to encounter throughout their lives. Research now clearly finds that even the prenatal environment has direct



effects on the development of the child, some of which occur through epigenetic changes. After a child is born the early caregiving a child receives serves as a critical developmental regulator of both child behavior and biology. Sensitive and responsive caregiving has been shown to shape children's physiologic stress response systems, guiding how they respond to later stressors. This same sensitive caregiving also influences epigenetic and cellular factors. Research in the Drury lab has demonstrated the impact of caregiving, abuse, neighborhood violence, and maternal prenatal smoking, among other factors, on

telomeres, the cellular aglet cap at the end of every chromosome. Telomeres are the cellular clock, marking aging and stress within the cell, that capture a myriad of different stress exposures and are potentially predictive of future health risks. Efforts to decrease the lasting, cross-domain, health effects of toxic stress, child maltreatment, and violence need to not only look at the outside of children but also protect the inside biological factors to ensure life-long health.



Dr. Drury's research is currently funded by NIMH, NIMHD, and The Bill and Melinda Gate Foundation. She has previously received funding from the Dr. Harry Seneca Trust, NARSAD, The Harvard Center of the Developing Child, NIEHS, SAMSHA and the Tulane Oliver Fund. Her work has been featured in the Washington Post: ("[Violence at home puts a genetic stamp on kids and may lead to health problems.](http://m.washingtonpost.com/news/to-your-health/wp/2014/06/18/violence-at-home-puts-a-genetic-stamp-on-kids-and-may-lead-to-health-problems/)" [http://m.washingtonpost.com/news/to-your-health/wp/2014/06/18/violence-at-home-puts-a-](http://m.washingtonpost.com/news/to-your-health/wp/2014/06/18/violence-at-home-puts-a-genetic-stamp-on-kids-and-may-lead-to-health-problems/)

[genetic-stamp-on-kids-and-may-lead-to-health-problems/](http://m.washingtonpost.com/news/to-your-health/wp/2014/06/18/violence-at-home-puts-a-genetic-stamp-on-kids-and-may-lead-to-health-problems/)) and the Wall Street Journal (John S

Dykes: "How dickensian childhood leaves genetic scars." <http://online.wsj.com/article/SB10001424052702304363104577390462225369908.html?KEYWORDS=telomere>)

Dr. Stacy Drury and members of her research team

