How is the brain shaped and refined by children’s early social and emotional experiences? In this colloquium I will focus on the development of children who have endured environments marked by toxic levels of stress early in their development. These children are known to be at increased risk for a variety of health, academic, and social problems. Some of these problems appear immediately, but others may not manifest themselves until much later in development. I will highlight ways in which we can address central issues in human development by studying the quality and timing of children’s social experiences. To do so, I will describe recent research involving children who have experienced child abuse and neglect, children raised in poverty, children raised in institutional settings, children who have endured traumatic life experiences, and typically developing children. Through these studies, I will highlight new insights about the developmental processes underlying children’s sensitivity to their social environments as a way to understand the emergence of both adaptive and maladaptive human emotional behavior. Defining and specifying ways in which the environment creates long-term effects on brain and behavior holds tremendous promise for improving the health and well-being of children.