Abstract:

Experimental animal studies suggesting that early glucocorticoid exposure may have lasting effects on the neurodevelopment of the offspring provide a developmental model with substantial implications for theory and public health. Translational research on this topic is well-developed and underway, but major questions remain about how well findings from animal studies concerning, for example, mechanisms of action and the role of postnatal rearing, extend to humans. In this presentation I will present findings from three studies on prenatal anxiety/stress and child development: a) a large-scale community study that has followed pregnant mothers and their children to mid-adolescence; b) a clinical investigation with detailed data on prenatal exposure to glucocorticoids; c) a further clinical investigation seeking to link prenatal exposure with immunological outcomes in the child. The central aims are to examine the data supporting (and challenging) the existing experimental animal model. For example, data will be presented to show that prenatal cortisol exposure, indexed by amniotic fluid levels, predicts lower cognitive ability in the infant, but that this effect is moderately by child–mother attachment: in children with an insecure attachment the correlation was \( r(54) = -0.47, p < .001 \); in contrast, the association was non-existent in children who had a secure attachment \( r(70) = -0.05, \text{ns} \).