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Day 1- 25.6, Plenary I- 10:00-11:30

Epigenetic alterations in Holocaust offspring

Abstract:

There has been much interest in trying to understand whether the effects of trauma are passed down to the next generation, or even subsequent generations. Recent advances in molecular biology and epigenetics have provided paradigms for understanding long term effects of stress. Epigenetic research in animals has provided models for how such effects might be transmitted and there has been great speculation regarding whether and to what extent such mechanisms can be applied towards understanding some of the enduring effects of trauma in offspring of survivors. This presentation will focus on the consequences of parental trauma and will examine the question of whether such effects are biologically “transmitted.”

Most of the research has been conducted on adult children of Holocaust survivors but is supported by observations in children born to pregnant women who survived the world trade center attack on 9/11. Findings demonstrating epigenetic marks associated with parental trauma effects of PTSD will be reviewed, and discussed in the context of whether they represent generational “damage” resulting from adversity or indicate attempts to adapt to environmental challenge to achieve resilience.

Learning objectives:

1. To discuss biological mechanisms associated with Epigenetics (including preconception, in utero, and postnatal influences).
2. To discuss intergenerational transmission and risk for psychopathology in offspring.
3. To discuss enduring biological alterations.