

**~ Special Seminar ~**

**NO REGISTRATION NEEDED – ALL WELCOME!**

**Jointly hosted by:**

**The UCL Centre for Developmental Cognitive Neuroscience (CDCN),  
the UCL Centre for Adolescent Health (CAH) and the UCL Institute of  
Cognitive Neuroscience (ICN)**

**Date: Thursday 14th February 2013**

**Time: 4:00pm**

***Dr Jay Giedd***

National Institute of Mental Health, USA

***“Structural Development of the Adolescent Brain”***

**Venue: Kennedy Lecture Theatre, Ground Floor**

**Institute of Child Health, 30 Guilford Street, WC1N 1EH**

**Abstract:**

The adolescent brain has been forged by evolution to have different features than those of a child or an adult, but it is not broken or defective. Phenomenal ability to adapt to environmental demands (i.e. plasticity), dynamic changes in the brain's reward circuitry, and dramatic alterations in how the different components of the brain interact with each other make adolescence a time of great opportunity but also a time of vulnerability. Adolescence is the most common time for emergence of many psychiatric conditions including anxiety and mood disorders, eating disorders, psychosis, and substance abuse. Neurobiological maturation drives behavioural changes of increased risk taking, heightened sensation seeking, and a move away from parent to peer affiliation. These behaviours are not inherently bad but may contribute to an increased likelihood for addiction, unwanted teen pregnancy, sexually transmitted diseases, motor vehicle accidents, or violent criminal activity. Neuroimaging investigations are beginning to map trajectories of brain development in health and illness, discern the influences - for good or ill - on these trajectories, and explore how the biological changes interact with the behavioural changes and social context to affect the lives of teens and their families. Dr Giedd will summarize results from his 21 year ongoing longitudinal brain imaging study encompassing over 6000 scans from 3000 youth; discuss the impact of the digital revolution on the way teens learn, play, and interact; and speculate on future directions of adolescent neuroscience research.

**Biosketch:**

Jay N Giedd is a practicing Child and Adolescent Psychiatrist, Chief of Brain Imaging at the Child Psychiatry Branch of the National Institute of Mental Health, and adjunct Professor at the Johns Hopkins Bloomberg School of Public Health in the Department of Population, Family & Reproductive Health. Since 1991 Dr Giedd has been conducting research on the biological basis of cognition, emotion, and behaviour with a particular emphasis on the teen years.

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