Meanwhile, inside the adolescent brain...

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Youth & Identity Kickoff, UU, June 27th 2013
Most teenagers go through the expected major changes in behavior, cognition and brain development.

A minority experiences problems - The question is why and can we help them?
What is happening?

◆ Most teenagers go through the expected major changes in behavior, cognition and brain development

◆ A minority experiences problems - The question is why and can we help them?
Brain development
From here to maturity

Areas for basal functions develop first, areas for complex associated functions develop later.
Influences of Genes, Hormones, Environment

**GENES**
- Brain volume
- Which genes?

**HORMONES**
- LH
- FSH
- Estradiol
- Testosterone
- $r = 0.22 \ (p<0.05)$

**ENVIRONMENT**
- Brain functioning
- Local brain growth
- G X E interaction
- Parents?
- Peers?
- School?

Is SOMETHING happening?.. YES!

- Which genetic, hormonal, environmental factors influence behavioral brain development?
- Important to study how educational training and other environmental interventions may promote efficiency and connectivity of the brain network to allow teenagers to thrive!