

**17th Annual**

# Neuroscience Center 2006 Retreat of Excellence

**Keynote Speaker**

**and Chancellor's Award Lecturer  
in Neuroscience**



**Huda Y. Zoghbi, M.D.**

Professor of Molecular and Human Genetics,  
Pediatrics, Neurology, and Neuroscience;  
Investigator, Howard Hughes Medical Institute;  
Member of the National Academy of Sciences;  
Baylor College of Medicine, Houston, TX

## **Rett Syndrome and MeCP2: Gateway to Neuropsychiatric Disorders**

Rett syndrome (RTT) is a neurological disorder that disrupts postnatal development. RTT patients appear normal for 6-18 months and then lose the ability to speak and walk, and develop incessant hand-wringing motions as well as autistic features. RTT is caused by mutations in the transcriptional repressor, methyl CpG binding protein 2 (MeCP2). MeCP2 is believed to alter chromatin structure and histone acetylation by binding methylated cytosine residues and recruiting histone deacetylases to promoter sequences. Mutations in MECP2 cause not only Rett syndrome, but a variety of other disorders ranging from mild learning disability or autism in females to severe mental retardation, psychoses, or encephalopathy in males. MeCP2 is highly abundant in the brain, is expressed in neurons, and its appearance coincides with neuronal maturation. Mice genetically engineered to carry a truncating mutation (*Mecp2308*) develop most of the features of the human disease including stereotypic forelimb motions, balance problems, seizures, anxiety-like behaviors, and altered social interactions.

This presentation will discuss how genetic, molecular, and electrophysiology studies are beginning to provide insight about the pathogenesis of Rett syndrome and about the role of MeCP2 in postnatal brain development and synaptic plasticity. In addition, I will discuss how studying Rett pathogenesis could provide insight into several neuropsychiatric disorders.

**Saturday,**

**May 20, 2006**

**8:00 a.m. to 2:00 p.m.**

**2020 Gravier Street, 8th Floor**

Keynote Lecture: 9:30 a.m.  
8th Floor Conference Room  
LSU-Lions Medical Research Center

Poster Set-up:  
8:00 a.m. to 9:00 a.m.

Poster Viewing:  
11:00 a.m. to 1:00 p.m.  
8th and 9th Floor

Light Lunch and Awards:  
1:00 - 2:00 p.m.  
8th Floor Conference Room

Members of the Greater New Orleans  
Society for Neuroscience Chapter are  
invited to submit abstracts and  
participate in the event.

**Deadline for abstract and  
registration submission  
is May 8, 2006**

**Contact Melissa Musacchia  
at 599-0831 or  
e-mail: [mmusac1@lsuhsc.edu](mailto:mmusac1@lsuhsc.edu)**