BCM Baylor College of Medicine
Department of Neurology

Neurology Grand Rounds

Sponsored by Baylor College of Medicine

Friday, March 7, 2008
8:00 to 9:00 AM
Onstead Auditorium
Mitchell Basic Science Research Building

Autophagy: a novel therapeutic target for Parkinson's disease

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Objectives:
At the end of this program, participants should be able to:

- understand the causes and pathogenesis of Parkinson's disease;
- recognize two most important protein degradation pathways: ubiquitin-proteasome system (UPS) and autophagy-lysosome pathway (ALP) related to Parkinson's disease; and
- be aware of the role of autophagy lysosome pathway as a potential therapeutic target for Parkinson's disease

References:

- Braak H, Del Tredici K, Rub U, de Vos RA, Jansen Steur EN, Braak E. Staging of brain pathology related to sporadic Parkinson's disease. Neurobiol Aging 2003; 24: 197-211.
- Ciechanover A. Proteolysis: from the lysosome to ubiquitin and the proteasome. Nature Reviews 2005; 6: 79-86.
- Cuervo AM, Stefanis L, Fredenburg R, Lansbury PT, Sulzer D. Impaired Degradation of Mutant α-Synuclein by Chaperone-Mediated Autophagy. Science 2004; 305: 1292-5.
- Larsen KE, Sulzer D. Autophagy in neurons: a review. Histol Histopathol 2002; 17: 897-908.
- Ravikumar B, Berger Z, Vacher C, O'Kane CJ, Rubinsztein DC. Rapamycin pre-treatment protects against apoptosis. Hum Mol Genet 2006; 15: 1209-16.
- Rideout HJ, Lang-Rollin I, Stefanis L. Involvement of macroautophagy in the dissolution of neuronal inclusions. Int J biochem Cell Biol 2004; 36: 2551-62.
- Rubinsztein DC. The roles of intracellular protein-degradation pathways in neurodegeneration. Nature 2006; 443: 780-6.

Target Audience, Needs, Educational Methods, Activity Evaluation:
Physicians, residents, fellows, and other healthcare professionals need to be updated about new advances in the clinical and research areas for the diagnosis, treatment, and management of patients with neurological disorders. Educational methods will include lectures, case presentations, audio/video presentations, and questions & answer sessions. Participants will be asked to complete an activity evaluation.

Accreditation/Credit Designation
Baylor College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Baylor College of Medicine designates this educational activity for a maximum of *1.0 AMA PRA Category 1 Credit(s)™*. Physicians should only claim credit commensurate with the extent of their participation in the activity.