New Research Takes a Significant Step toward Developing a Blood Test for Accurate Diagnosis of Parkinson’s and Overlapping Disorders

Abstract to be presented at the American Neurological Association’s 143rd Annual Meeting October 21-23, 2018 in Atlanta

(MOUNT LAUREL, NJ, October 21, 2018) — Clumps and deposits of a synaptic protein, α-synuclein, are found in neurons and certain glia of patients with Parkinson’s disease (PD), Dementia with Lewy body disease (DLB), and multiple system atrophy (MSA), but distinguishing these overlapping diagnoses is often challenging. In research to be presented at the American Neurological Association’s 143rd Annual Meeting October 21-23, 2018, investigators from the University of California- Los Angeles examined neuronal and oligodendroglial exosomes isolated from blood samples of 50 healthy controls, 50 patients with PD, and 30 patients with MSA; they found that α-synuclein was elevated in patients relative to controls and that the fractions of the protein in neuronal to glial exosomes were different enough to distinguish PD from MSA patients with 90% accuracy and sensitivity. Exosomes are tiny packets filled with protein, DNA and RNA that are shed by cells and brain derived α-synuclein containing exosomes have recently been identified in blood.

The abstract, “α-synuclein in Brain-derived Blood Exosomes Distinguishes Multiple System Atrophy From Parkinson’s Disease,” was submitted by Suman Dutta, PhD, and Gal Bitan, PhD.

“This is a significant step toward developing a blood test specific for diagnosing these ‘synucleinopathies’ in life, paving the way for more precise prevention and treatment of these devastating brain diseases,” said M. Elizabeth Ross, MD, PhD; Director, Center for Neurogenetics at Weill Cornell Medicine and Chair of the ANA’s Scientific Program Advisory Committee.

To request access to the full program of abstracts (embargoed until the start of the Annual Meeting on October 21), please contact Rachel Brown at rbrown@steegethomson.com.
Members of the media are welcome to attend the full meeting and can view the full advance program here. For the meeting schedule at a glance, click here. To register and obtain press credentials, please click here.

About the American Neurological Association (ANA)

From advances in stroke and dementia to movement disorders and epilepsy, the American Neurological Association has been the vanguard of research since 1875 as the premier professional society of academic neurologists and neuroscientists devoted to understanding and treating diseases of the nervous system. Its monthly Annals of Neurology is among the world’s most prestigious medical journals, and the ANA’s Annals of Clinical and Translational Neurology is an online-only, open access journal providing rapid dissemination of high-quality, peer-reviewed research related to all areas of neurology. The acclaimed ANA Annual Meeting draws faculty and trainees from the top academic departments across the U.S. and abroad for groundbreaking research, networking, and career development. For more information, visit www.myana.org or @TheNewANA1.

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