

FOR IMMEDIATE RELEASE

## **Inhibikase Advances Development Program for Multiple System Atrophy (MSA) Based on Demonstration of Key Role of c-Abl Kinase in MSA Neurodegeneration**

ATLANTA, December 3, 2020— Inhibikase Therapeutics, a clinical-stage pharmaceutical company developing therapeutics for Parkinson's disease and related disorders that arise inside and outside of the brain, announced today the unexpected finding that c-Abl kinase plays a pivotal role in the alpha-synuclein-induced neurodegeneration that underlies the initiation and progression of multiple system atrophy (MSA). The study, led by the laboratory of Jeffrey H. Kordower, PhD, of Rush University Medical Center, along with collaborating investigators including Inhibikase President & CEO Milton Werner, PhD, was focused on further validating novel animal models of MSA and revealed that c-Abl activates and regulates alpha-synuclein aggregation in the brains of MSA patients and in the brains of animal models of the disease. The findings are published in the January 2021 edition of *Neurobiology of Disease* (doi: 10.1016/j.nbd.2020.105184.)

Parkinson's disease and multiple system atrophy (MSA) are similar progressive neurodegenerative disorders in which the abnormal accumulation and aggregation of the neuronal protein, alpha-synuclein, is known to play a crucial role, self-propagating in the brain and other organ systems to drive neurological dysfunction and degeneration. The critical role of c-Abl kinase activation and chemical modification of alpha-synuclein aggregates in Parkinson's disease initiation and progression is well established, but in MSA, synuclein aggregates arise in a distinct cell type in the brain that isn't associated with neurodegeneration. The study showed that, in addition to Parkinson's disease, c-Abl activation plays a key and defining role in alpha-synuclein aggregate-driven neurodegeneration in MSA.

“With the finding that c-Abl kinase could potentially play a critical role in MSA pathogenesis, Inhibikase's pursuit of c-Abl inhibitors targeting alpha-synuclein pathology in Parkinson's disease and related disorders may prove to be useful as a treatment for this devastating disorder,” said Milton Werner, Ph.D., President and Chief Executive Officer of Inhibikase Therapeutics. “In collaboration with the Kordower laboratory, Inhibikase will use these newly created preclinical models to evaluate the treatment potential of the company's kinase inhibitor portfolio in MSA.”

### **About Multiple System Atrophy (MSA)**

Multiple system atrophy (MSA) is a rapidly progressive neurodegenerative disorder that is extremely debilitating and fatal. MSA is a rare disease, affecting potentially 15,000 to 50,000 people in the U.S. Symptoms, which reflect the progressive loss of function and death of different types of nerve cells in the brain and spinal cord, tend to appear in people over the age of 50 and advance rapidly, leading to death within 5-10 years after symptoms first appear, often due to cardiac or respiratory complications. While some of the symptoms of MSA can be treated with medications, currently there are no disease-modifying treatments and no cure for MSA.

### **About Inhibikase ([WWW.INHIBIKASE.COM](http://WWW.INHIBIKASE.COM))**

Inhibikase is a clinical-stage pharmaceutical company developing therapeutics for Parkinson's disease and related disorders that arise inside and outside of the brain. Inhibikase is headquartered in Atlanta, Georgia

with additional offices in Boston, Massachusetts.

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