

## **Press Release:**

### **First Commercial *in vitro* Test System for Human Neuroprotection in Proteopathic Diseases such as Alzheimer's and Parkinson's**

To be released at BioEurope in Munich, 2.11.2015

Today, SynAging, Nancy, France announced its collaboration with MTI-GlobalStem, Gaithersburg, MD, USA, a provider of human induced pluripotent stem (IPS) cells and optimized neuronal differentiation reagents and protocols. This collaboration, which started in 2014, has resulted in SynAging's highly reproducible neuroprotection assays on human neurons for drug developers in AD and PD.

MTI-GlobalStem provided know-how and materials for the generation of differentiated human neurons in multiwell plates, while SynAging initially characterized the resulting mixed neuronal culture composition, looking at neuronal and glial marker expression. SynAging has subsequently developed assays which treat these human neuronal cultures with its established amyloid beta oligomers (AbO) and alpha-synuclein oligomers (aSO) that have well established neurodegenerative properties in rodent primary neurons, mimicking AD and PD, respectively. Highly reproducible neurodegeneration is induced rapidly in these human cultures and neurons are rescued in a dose dependent manner - e.g. by BDNF, a known blocker of neuronal apoptosis.

Dr. Thierry Pillot, CEO and CSO of SynAging, commented: "This new assay system allows our clients to test their drug candidates on human neurons and targets first. Thus very early in drug discovery 'on human target' effects can be validated *in vitro*, including in target knockdown experiments, reducing the downstream risks in development. As is the case with our rodent cultures, the *in vitro* assays with human neurons permit an initial evaluation of disease modifying properties of novel compounds prior to

potential evaluation in our well established *in vivo* mouse cognition models. We are very grateful to MTI-GlobalStem for their enthusiasm and support of this joint project!”

Dr. Jonathan Auerbach, CTO of MTI-GlobalStem Inc. replied: “It was a pleasure working with Thierry and his team at SynAging. They performed very thorough and valuable work using our human iPSC-derived (HIP™) neurons. We are very excited by their success as this is true validation of the utility of our HIP™ Neuron platform for use in drug development and screening. SynAging’s results, together with functional synaptic, electrophysiological and imaging data from other collaborators and our own R&D team, demonstrate the strength and relevance of this system.”

**About MTI-GlobalStem:** MTI-GlobalStem is a leading supplier of cutting-edge tools and reagents for the life sciences. Utilizing its own patent portfolio and know-how, MTI-GlobalStem’s specialized team of highly skilled and experienced scientists are filling the gap with primary and iPSC-derived neural cells, stem cells and supporting feeder cells, optimized growth media and supplements, and an innovative platform of novel targeted reagents used to deliver nucleic acids into stem cells and neuronal cells with maximum efficiency.

**About SynAging:** SynAging focuses on disease-inducing protein aggregates, which are involved in the earliest stages of proteopathic neurodegenerative diseases, like Alzheimer’s and Parkinson’s. As a contract research organization SynAging provides highly reproducible drug testing services, employing these proprietary protein aggregates to initiate disease symptoms *in vitro* and *in vivo*.