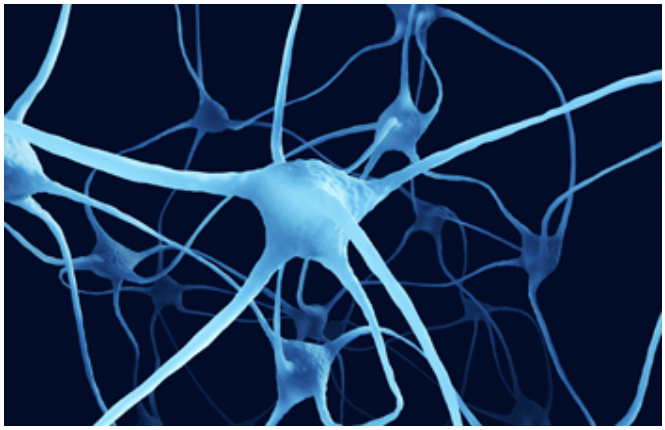
New research into delaying the onset of motor neurone disease shows positive results

25 May 2017, by Amy Pullan



Credit: University of Sheffield

New research conducted by scientists at the University of Sheffield into a drug candidate which could help to delay the onset of motor neurone disease has shown encouraging early results.

The drug candidate was discovered by the British artificial intelligence company BenevolentAI.

The study, which was led by Dr Richard Mead and Dr Laura Ferraiuolo from the University's Sheffield Institute of Translational Neuroscience (SITraN), found significant and reproducible indications that the drug prevents the death of motor neurones in patient cell models and delayed the onset of the disease in the gold standard of models.

Motor neurone disease, also known as amyotrophic lateral sclerosis (ALS) is a progressive neurodegenerative disease that causes muscle weakness, paralysis, and ultimately, respiratory failure. Life expectancy following diagnosis is approximately two to five years.

There are currently only two FDA approved drugs available to patients, Riluzole, approved in 1995, and Edaravone, approved only a few weeks ago.

SITraN are now moving to the next phase of their research, advancing the existing study and assessing the suitability and potential for clinical development. Researchers expect to publish an abstract at the motor neurone disease Association 28th International Symposium in Boston, USA in December.

Dr Richard Mead from SITraN said: "This is an exciting development in our research for a treatment for ALS. BenevolentAI came to us with some newly identified compounds discovered by their technology—two of which were new to us in the field and, following this research, are now looking very promising. Our plan now is to conduct further detailed testing and continue to quickly progress towards a potential treatment for ALS."

SITraN is one of the world leading centres for research into motor neurone disease, Alzheimer's and Parkinson's disease. From basic neuroscience research to novel therapies and clinical trials—SITraN's aim is to improve the lives of patients with neurodegenerative disorders and their families worldwide.

The purpose-built facility uniquely allows the multidisciplinary collaboration of clinicians, scientists and health professionals to develop new treatments for the benefit of patients.

Ken Mulvany, Founder and Chairman of BenevolentAI commented: "We understand from SITraN their research demonstrates that the hypothesis and drug candidate that our technology identified has delayed the onset of cell death in the gold standard model of ALS. We are incredibly

encouraged by these findings. We very much look forward to the results of SITraN's further studies and are hopeful for the positive impact that this drug could have for people living with ALS."

Provided by University of Sheffield