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Developing a Cell Therapy for Parkinson's Disease

AMSBIO reports upon a publication** that cites how its STEM-CELLBANKER® animal-free cryopreservation media has played a role in the development of a cell therapy for Parkinson's Disease that will soon be going into clinical trials.



Parkinson's disease

is one of the most common neurodegenerative diseases worldwide. Its main features include motor symptoms such as bradykinesia, rigidity, resting tremor, and postural instability, though non-motor symptoms are often also present. Currently the main therapy for Parkinson's disease consists of augmentation of dopamine levels in the brain via dopamine supplements or agonists or by inhibiting dopamine degradation. Treatment using this methodology is symptomatic but not long-lasting, and unfortunately has no neuroprotective effect. Cell therapy with grafts of human fetal tissue from the ventral mesencephalon have been carried out successfully, with multiple reports of long-term benefits.

A pioneering study

from the Centre for Stem Cell Biology at the Memorial Sloan Kettering Cancer Centre (USA) has focused on developing stem cell-derived midbrain dopamine progenitors for the treatment of Parkinson's Disease. This study highlighted, amongst other things, that scientists have been able to demonstrate the efficacy of STEM-CELLBANKER® to store, thaw and then recover these manufactured cells for clinical use in patients.

STEM-CELLBANKER®

is a ready-to-use, chemically defined, animal-free freezing medium manufactured under GMP conditions. It is optimized for embryonic stem (ES) and induced pluripotent stem (iPS) cell storage, as well as being a suitable solution for the cryopreservation of other fragile cell types. Containing only European or US Pharmacopoeia graded ingredients, STEM-CELLBANKER® is the optimal choice for storage of cells developed for cell therapy applications. It is also available as a DMSO free formulation. STEM-CELLBANKER® significantly increases cell viability while maintaining cell pluripotency, normal karyotype and proliferation ability after freeze-thaw. STEM-CELLBANKER® is ready-to-use and requires no special devices, such as a controlled rate freezer, in order to achieve consistently high viabilities following resuscitation from cryopreservation, even over extended long-term storage.



To read the Parkinson's Disease cell therapy paper

in full please visit <https://bit.ly/3eYwZ5L>. For further information including a video introduction to STEM-CELLBANKER® please visit <https://www.amsbio.com/stem-cell-cryopreservation/> or contact AMSBIO on +44-1235-828200 / +1-617-945-5033 / info@amsbio.com.

AMS Biotechnology (AMSBIO)

Founded in 1987, AMS Biotechnology (AMSBIO) is recognized today as a leading transatlantic company contributing to the acceleration of discovery through the provision of cutting-edge life science technology, products and services for research and development in the medical, nutrition, cosmetics and energy industries. AMSBIO has in-depth expertise in extracellular matrices to provide elegant solutions for studying cell motility, migration, invasion and proliferation. This expertise in cell culture and the ECM allows AMSBIO to partner with clients in tailoring cell systems to enhance organoid and spheroid screening outcomes using a variety of 3D culture systems, including organ-on-a-chip microfluidics. For drug discovery research, AMSBIO offers assays, recombinant proteins and cell lines. Drawing upon a huge and comprehensive biorepository, AMSBIO is widely recognised as a leading provider of high-quality tissue specimens (including custom procurement) from both human and animal tissues. The company provides unique clinical grade products for stem cell and cell therapy applications-these include high quality solutions for viral delivery (lentivirus, adenovirus and adeno-associated virus) in addition to GMP cryopreservation technology.

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