

## Novel reagents advance research into Parkinsons disease and sleep disorders

### BioPORTER®, Detachin™, and SoluLyse™ reagents

In a recent blog post – **AMSBIO** describe how **life science research groups** are using their **BioPORTER®, Detachin™, and SoluLyse™ reagents** to make groundbreaking advances in Parkinson's research, hypersomnia studies and eco-friendly microbial ester production.

### These novel reagents

empower research by enhancing the efficiency, accuracy, and reproducibility of scientific investigations

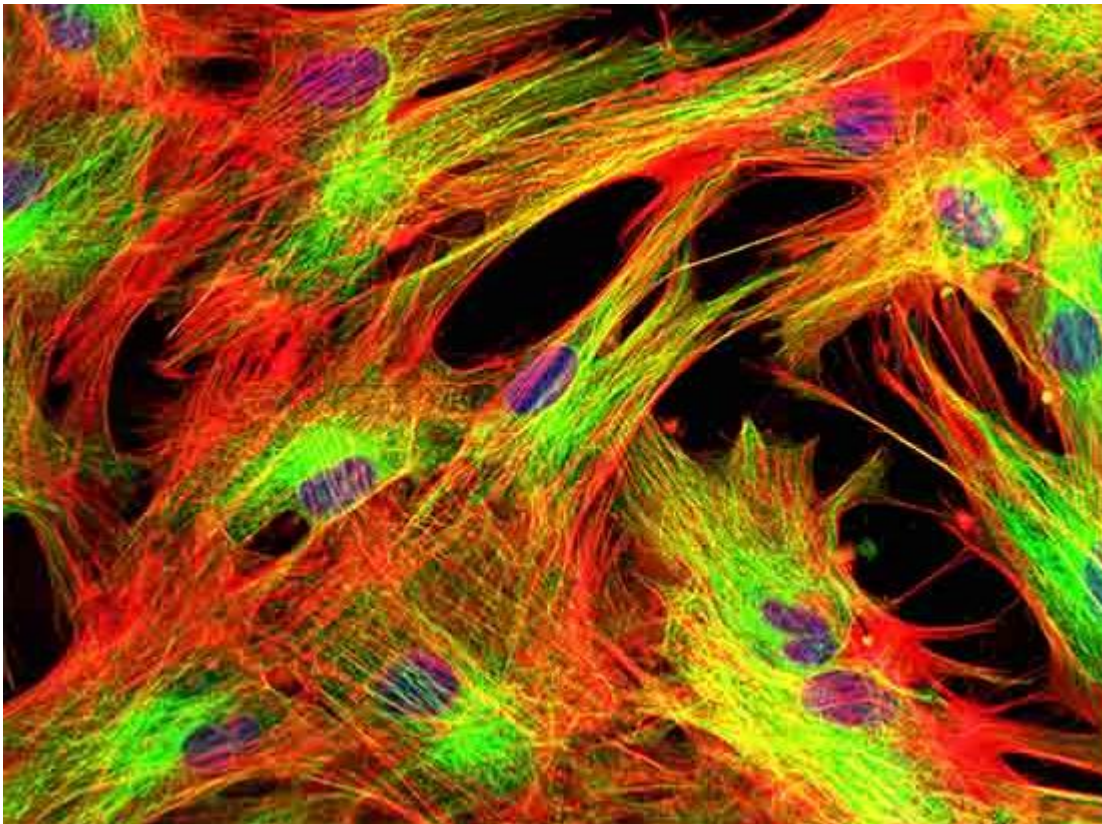


Image caption: BioPORTER® protein delivery reagent kit enables direct translocation of proteins into living cells

### A collaborative effort

led by Dr. Wenjing Wang at the University of Michigan and Dr. Xiaobo Mao of Johns Hopkins University School of Medicine has made exciting advances in the development of potential therapeutics for Parkinson's disease. To determine the relationship between  $\alpha$ -syn



aggregation and PFFNB2 in mammalian cells, Dr. Wang and Dr. Mao used a BioPORTER® protein delivery reagent kit to enable easy transduction of  $\alpha$ -syn preformed fibrils to HEK293T cells. BioPORTER® uses biocompatible polymers to encapsulate and protect proteins during delivery, ensuring stability and activity, and paving the way for more accurate and reproducible results.

### **Dr Andrew Jenkins**

and his team at the University of Saint Joseph are pioneers in repurposing compounds to address the debilitating effects of sleep disorders including hypersomnia. Focusing on eleven compounds previously identified as modulators of GABAA receptor brain activity to alleviate excessive sleepiness, Dr. Jenkins team used Detachin™ Cell Detachment Solution from AMSBIO to prepare cells for electrophysiological analysis. Cell detachment is a critical step in cell culture experiments. Using Detachin™, the University of Saint Joseph researchers were able to reliably produce high cell viability and functionality, reducing the risk of altered cell behavior due to harsh detachment methods.

### **Microbial production**

of short-chain esters offers an eco-friendly alternative to chemical synthesis, but low yields remain a challenge. To address this, Dr. Arul M. Varman at Arizona State University and Dr. Ryan Davis from Sandia National Laboratories used SoluLyse™ Bacterial Protein Extraction Reagent to simplify and accelerate the process of obtaining high-quality protein extracts from E. coli. Using this unique and efficient, yet gentle formulation – the research teams found SoluLyse™ to be a great asset in their protein research, ensuring efficient cell lysis without compromising protein integrity.

### **Dr Maja Petkovic,**

Business Unit Manager at AMSBIO commented “Replacing basic life science reagents with products like BioPORTER®, Detachin™, and SoluLyse™ can lead to significant improvements in your research outcomes. These reagents offer enhanced performance and convenience, allowing you to obtain more reliable and reproducible results.”

### **To read this blog in full please**

visit <https://www.amsbio.com/blogs/basics-to-brilliance-2/>. For further information on innovative products for cellular and microbial research please contact **AMSBIO** on +31-72-8080244 / +44-1235-828200 / +1-617-945-5033 / [info@amsbio.com](mailto: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 R&D 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 recognized 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 cells and cell therapy applications. This includes GMP cryopreservation technology, and high-quality solutions for viral delivery.

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