



PRESS RELEASE

to-BBB receives Michael J. Fox Foundation funding for Parkinson's disease research

Leiden, the Netherlands, 17 April 2012

to-BBB, the Dutch brain drug delivery company, has been awarded funding by The Michael J. Fox Foundation (MJFF) to conduct preclinical research targeting neuroinflammation in Parkinson's disease (PD) with its second product in development, 2B3-201. This is to-BBB's first grant from MJFF.

“We strongly believe that we can create better treatment options for devastating brain diseases faster by safely enhancing the delivery of existing, proven effective, drugs across the blood-brain barrier. Neuroinflammation plays an important role in the pathogenesis and progression of various neurological disorders, including PD. It is a major acknowledgement from MJFF to support us to target such a novel approach in PD. This grant will provide to-BBB with the opportunity to pursue Proof of Concept of 2B3-201 in PD, and we look forward to collaborating with the Foundation,” said Pieter Gaillard, Chief Scientific Officer of to-BBB.

to-BBB aims to demonstrate the improved effect of its brain-targeted long-circulating liposomal formulation of methylprednisolone (2B3-201) in established preclinical models of PD. Methylprednisolone is known to be a very effective drug in reducing acute neuroinflammation, however, its widespread use is limited by the well-known acute and chronic side effects of glucocorticoids. In preliminary preclinical studies, 2B3-201 has already shown to significantly better reduce neuroinflammation in preclinical models as compared to similar doses of free methylprednisolone. This was accomplished by a sustained higher brain penetration at a low effective dose, with demonstrable less side effects, thereby significantly improving the therapeutic index of the treatment.

“Neuroinflammation may play a central role in the progression of Parkinson's disease,” said Audrey Dufour, PhD, associate director of research programs at MJFF. “to-BBB has developed an innovative technology to deliver methylprednisolone, an anti-inflammatory drug, into the brain. If results are positive, it could open new avenues for the development and testing of novel therapies for people with PD.”

to-BBB's drug delivery platform (the G-Technology[®]) safely enhances the delivery of specific compounds to the brain, across the blood-brain barrier. Its lead product 2B3-101 (brain-targeted liposomal doxorubicin) is currently in a phase I/IIa trial, treating patients with primary and metastatic brain tumors. Its second product is being preclinically profiled for various indications associated with neuroinflammation, including MS, epilepsy, neuropathic pain, lysosomal storage diseases and now also PD.

About Parkinson's Disease

Parkinson's disease is a chronic, progressive disorder of the central nervous system and results from the loss of cells in an area of the brain called the substantia nigra. These cells produce dopamine, a chemical messenger responsible for transmitting signals within the brain. Loss of dopamine causes critical nerve cells in the brain, or neurons, to fire out of control, leaving

patients unable to direct or control their movement in a normal manner. The symptoms of Parkinson's may include tremors, difficulty maintaining balance and gait, rigidity or stiffness of the limbs and trunk, and general slowness of movement (also called bradykinesia). Patients may also eventually have difficulty walking, talking, or completing other simple tasks. Symptoms often appear gradually yet with increasing severity, and the progression of the disease may vary widely from patient to patient. There is no cure for Parkinson's disease. Drugs have been developed that can help patients manage many of the symptoms; however they do not prevent disease progression.

About The Michael J. Fox Foundation

The Michael J. Fox Foundation is dedicated to finding a cure for Parkinson's disease through an aggressively funded research agenda and to ensuring the development of improved therapies for those living with Parkinson's today. The Foundation has funded over \$289 million in research to date.

About to-BBB

to-BBB is a clinical stage biotechnology company focusing on enhanced drug delivery across the blood-brain barrier. The Company is developing novel treatments for devastating brain disorders, such as brain cancer, neurodegenerative diseases and lysosomal storage diseases, by combining existing drugs with the G-Technology[®], to-BBB's proprietary brain delivery platform. This technology combines the widely used drug delivery approach of pegylated liposomes with the endogenous tripeptide glutathione as targeting ligand in a novel and safe way. Together with several top tier pharma and biotech companies, to-BBB is investigating the versatility of the G-Technology for drugs that are unable to reach the brain at systemically tolerable therapeutic doses. to-BBB is applying the G-Technology for the delivery of doxorubicin for the treatment of brain cancer as its internal lead product 2B3-101.

to-BBB is headquartered in the Netherlands at the Leiden Bio Science Park and established a fully owned subsidiary, to-BBB Taiwan Ltd., in Taipei, Taiwan. Investors in to-BBB include Aescap Venture, Antea Participaties, Jonghoud International, the Industrial Bank of Taiwan Management Corporation (IBTM) and a consortium of informal investors.

Contact

Willem van Weperen, MSc, MBA
Chief Executive Officer

Phone: +31 71 3322252
E-mail: WillemVanWeperen@toBBB.com

to-BBB technologies BV
Niels Bohrweg 11
2333 CA Leiden
The Netherlands
www.toBBB.com

Pieter Gaillard, PhD
Chief Scientific Officer

Phone: +31 71 3322252
E-mail: PieterGaillard@toBBB.com

to-BBB technologies BV
Niels Bohrweg 11
2333 CA Leiden
The Netherlands
www.toBBB.com