



FOR IMMEDIATE RELEASE

## to-BBB Presents Data on 2B3-201 for Multiple Sclerosis

### *Approach Could Benefit MS Patients During an Attack*

Leiden, the Netherlands, 2 October 2013 - [to-BBB](#), the Dutch brain drug development company, has generated a novel treatment approach to combat attacks of Multiple Sclerosis. Nonclinical data presented this week at the European Committee for Treatment and Research in Multiple Sclerosis ([ECTRIMS](#)) congress in Copenhagen indicate that to-BBB's product 2B3-201 can provide an effective, safe and convenient treatment option for MS attacks, or relapses. The company is planning to start a "first in human" Phase I study later this year.

"We are very proud to share these data of our second product in development," says Pieter Gaillard, founder and Chief Scientific Officer of to-BBB. "2B3-201 is shown to dramatically improve the delivery of methylprednisolone (Solu-Medrol<sup>®</sup>), the current therapy for MS relapses. This approach could lead to benefits for patients with regard to efficacy, safety and convenience. Importantly, by improving the therapeutic window of an existing drug we anticipate to follow a relatively short route to the market to make this product available."

Relapsing-Remitting MS affects approximately 85% of MS patients at onset. Acute MS relapses are characterized by lymphocyte infiltration in the central nervous system (CNS), neuro-inflammation, blood-brain barrier impairment and neurological deficits. Standard of care therapy is high dose (0.5 to 1 gram) intravenous methylprednisolone for 3 to 5 days, which is costly, inconvenient and limited by acute CNS side effects.

2B3-201 is designed to provide slow and sustained delivery of methylprednisolone to blood and brain, based on the patented [G-Technology](#)<sup>®</sup>, a clinical-stage novel brain drug delivery technology. 2B3-201 is shielding methylprednisolone in the bloodstream, resulting in a long effective circulation time and reduction of acute CNS side effects. 2B3-201 will allow for lower doses of methylprednisolone and a lower dosing frequency.

The brain is a well-protected organ. The so-called blood-brain barrier selectively allows nutrients to enter the brain, and keeps harmful substances and also most drugs out of the brain. This makes treatment of brain diseases much more challenging compared to other diseases. By use of to-BBB's proprietary G-Technology, the blood-to-brain delivery of drugs is enhanced by using active transport processes at the blood-brain barrier.

#### **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 and neuroinflammatory 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 academic and pharma partners, 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 to enhance the delivery of doxorubicin to the brain as its internal lead product 2B3-101, currently in a Phase IIa trial for the treatment of primary brain tumors as well as brain metastases. to-BBB's second product 2B3-201 combines methylprednisolone with the G-Technology to treat neuroinflammatory diseases and is expected to enter a Phase I clinical study by the end of 2013.

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 and the Industrial Bank of Taiwan Management Corporation (IBTM).

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