



## PRESS RELEASE

### **to-BBB receives International Innovation grant to support partnership with top-5 pharma company**

Leiden, the Netherlands, 19 December 2011

**to-BBB, the Dutch brain drug delivery company, has been awarded a grant of over €600,000 through the “Internationaal Innoveren” program of the Dutch government agency Agentschap NL to support a brain drug delivery partnership with a top-5 pharma company. This work will facilitate future license deals with to-BBB’s brain cancer product 2B3-101 as well as other therapies in the pipeline.**

Drug treatment of severe brain diseases is markedly restricted by the neuroprotective blood-brain barrier, a biological firewall lining 600 kilometers of blood vessels in the brain. With 95% of all drugs not being able to cross this barrier at sufficient, clinically effective concentrations, the pharmaceutical industry is seeking novel delivery approaches to improve the treatment of brain diseases.

to-BBB has developed the proprietary G-Technology<sup>®</sup> to safely enhance the delivery of specific drugs to the brain. This provides a clear potential to treat a broad spectrum of brain diseases more efficiently. The purpose of this collaborative project of to-BBB with a top-5 pharma company, and several additional scientific partners, is to deepen the understanding of the mechanisms that contribute to the increased uptake of specific drugs in the brain by use of the G-Technology. The project will provide data to support potential pharmaceutical license deals with to-BBB’s therapies. The top-5 pharma company will be on the front row of the developments at to-BBB, as a central collaborator in the project.

Recently, to-BBB has initiated a clinical trial with its lead product 2B3-101 for primary and metastatic brain tumors. The trial is starting in specialized oncology centers in the Netherlands and Belgium with NKI-AVL, VUmc and LUMC currently open for recruitment. Recently, the plans for potential further clinical trials in the US were also successfully discussed with the FDA, in a pre-IND meeting. The company’s second product, 2B3-201, is targeting neuroinflammation, which is known to play a role in many brain diseases including MS, epilepsy, Parkinson’s disease and ALS. Furthermore, to-BBB and NeuroVive are jointly developing a therapy for neuroprotection in stroke, traumatic brain injury and for prevention of ischemic brain complications in cardiac surgery.

“Pharma companies aim to fill their pipelines with new drug candidates and treatment of brain diseases represents an important clinical area where successful drug development has been particularly challenging. This has partly been due to insufficient brain delivery of most relevant drugs across the blood-brain barrier, which in turn often leads to significant financial losses due to clinical development failures.” says Fredrik Lonnqvist, CMO of to-BBB.

Willem van Weperen, CEO of to-BBB, adds: “This research program will increase the chances of successful development of novel drugs for brain diseases by to-BBB in partnership with pharma companies. The financial support by Agentschap NL of more than €600,000 will accelerate to-

BBB's development programs and consolidate its role as a leading company in the area of brain drug delivery."

#### **About Internationaal Innoveren**

Agentschap NL is an agency of the Dutch Ministry of Economic Affairs, Agriculture and Innovation that promotes sustainable development and innovation with various financial instruments. Internationaal Innoveren is a grant program of the agency to develop new technologies and to collaborate with one or more international partners. The technological innovation should lead to a product, process or service.

#### **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<sup>®</sup>, 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.

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