



## Biogen Enters Exclusive Option Agreement to Acquire TMS' Phase 2 Asset for Acute Stroke

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- TMS-007 is designed to restore blood flow following acute stroke, with an extended treatment window versus current standard of care
- Biogen to pay \$4 million upfront and \$18 million upon exercise of the option, plus potential milestones of up to \$335 million and royalties
- Agreement reinforces Biogen's commitment to stroke within its acute neurology portfolio, a strategic emerging growth area

CAMBRIDGE, Mass., June 07, 2018 (GLOBE NEWSWIRE) -- [Biogen](#) (Nasdaq:BIIB) announced today it has entered into an exclusive option agreement with TMS Co., Ltd. to acquire TMS-007 and backup compounds. The agreement includes an upfront payment of \$4 million and an additional \$18 million payment if Biogen exercises its option, with up to \$335 million in potential development and commercialization milestones as well as tiered royalties.

TMS-007 is a plasminogen activator with a novel mechanism of action associated with breaking down blood clots, and is believed to inhibit local inflammation at the site of thrombosis. This unique combination could position TMS-007 as a best in class thrombolytic for individuals with acute ischemic stroke (AIS) with potential for an extended treatment window as compared to current thrombolytic agents.

"Stroke represents a compelling opportunity that takes advantage of our deep expertise and capabilities in neuroscience as we seek to make a meaningful difference in patients' lives. Stroke impacts millions of people every year, and is a leading cause of death and long-term disability worldwide," said Michael Ehlers, M.D., Ph.D., executive vice president, Research and Development at Biogen. "TMS-007 complements our broader efforts in stroke, including our Phase 3 ready asset BIIB093 (intravenous glibenclamide), which targets prevention and treatment of edema in large hemispheric infarction, one of the most severe types of stroke. By growing our acute neurology portfolio, we aim to make new advances in a disease that in the past decades has seen limited therapeutic innovation."

Stroke is the fifth leading cause of death in the U.S. with AIS accounting for approximately 85% of cases and large hemispheric infarction accounting for approximately 15% of AIS cases.

TMS-007 is a small molecule which has previously demonstrated an acceptable safety profile in a Phase 1 study and has also reduced infarct volume (area of dead tissue resulting from failure of blood supply) in experimental rodent and primate embolic and thrombotic stroke models.

TMS-007 is currently being evaluated in a double-blind, placebo-controlled Phase 2 study in Japan, designed to investigate the safety and efficacy of a single IV administration of TMS-007 in approximately 60-90 patients with AIS up to 12 hours after stroke onset. The Phase 2 study initiated with the first patient dosed in February 2018.

### About Biogen

At Biogen, our mission is clear: we are pioneers in neuroscience. Biogen discovers, develops, and delivers worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases. One of the world's first global biotechnology companies, Biogen was founded in 1978 by Charles Weissmann, Heinz Schaller, Kenneth Murray, and Nobel Prize winners Walter Gilbert and Phillip Sharp, and today has the leading portfolio of medicines to treat multiple sclerosis; has introduced the first and only approved treatment for spinal muscular atrophy; and is focused on advancing neuroscience research programs in Alzheimer's disease and dementia, multiple sclerosis and neuroimmunology, movement disorders, neuromuscular disorders, pain, ophthalmology, neuropsychiatry, and acute neurology. Biogen also manufactures and commercializes biosimilars of advanced biologics.

We routinely post information that may be important to investors on our website at [www.biogen.com](http://www.biogen.com). To learn more, please visit [www.biogen.com](http://www.biogen.com) and follow us on social media – [Twitter](#), [LinkedIn](#), [Facebook](#), [YouTube](#).

### About TMS Co., Ltd.

TMS Co., Ltd. is a privately-held, clinical stage biotechnology company based in Fuchu-shi, Tokyo. The company was founded in 2005 to develop therapeutics based on novel discoveries to modulate the fibrinolytic system, identified by a team of scientists at Tokyo University of Agriculture and Technology (TUAT), led by Dr. Keiji Hasumi, Professor of the University and CEO of TMS.

### Biogen Safe Harbor

This press release contains forward-looking statements, made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including statements relating to the potential benefits and results that may be achieved through the option agreement with TMS Co., Ltd., Biogen's objectives and intentions regarding the option agreement, when, and whether, Biogen expects to exercise its option on TMS-007 and backup compounds, risks and uncertainties associated with drug development and commercialization, the potential benefits, safety and efficacy of investigational drugs including TMS-007 and BIIB093, the timing and status of current and future regulatory filings, the anticipated completion and timing of the transaction, and the potential of Biogen's commercial business and pipeline programs, including BIIB093. These forward-looking statements may be accompanied by such words as "aim," "anticipate," "believe," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "project," "target," "will," and other words and terms of similar meaning. Drug development and commercialization involve a high degree of risk, and only a small number of research and development programs result in commercialization of a product. Results in early stage clinical trials may not be indicative of full results or results from later stage or larger scale clinical trials and do not ensure regulatory approval. You should not place undue reliance on these statements or the scientific data presented.

These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements, including, without limitation: risks that the transaction will be completed in a timely manner or at all; uncertainty as to whether the anticipated benefits of the transaction can be achieved; risks of unexpected costs or delays; uncertainty of success in the development and potential commercialization of TMS-007, the backup compounds and/or BIIB093, which may be impacted by, among other things, unexpected concerns that may arise from additional data or analysis, the occurrence of adverse safety events, failure to obtain regulatory approvals in certain jurisdictions, failure to protect and

enforce data, intellectual property, and other proprietary rights and uncertainties relating to intellectual property claims and challenges; product liability claims; and third party collaboration risks. The foregoing sets forth many, but not all, of the factors that could cause actual results to differ from our expectations in any forward-looking statement. Investors should consider this cautionary statement, as well as the risk factors identified in Biogen's most recent annual or quarterly report and in other reports Biogen has filed with the U.S. Securities and Exchange Commission. These statements are based on our current beliefs and expectations and speak only as of the date of this press release. We do not undertake any obligation to publicly update any forward-looking statements, whether as a result of new information, future developments or otherwise.

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