# Biogen and Neurimmune Announce Option Exercise for Alzheimer's Disease Investigational Treatment Aducanumab

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- *Transaction increases profit potential of aducanumab for Biogen and provides near-term capital to Neurimmune*

CAMBRIDGE, Mass. & ZURICH--(BUSINESS WIRE)--May 1, 2018-- Biogen (Nasdaq: BIIB) and Neurimmune announced today that Biogen has exercised its option to further reduce the previously negotiated royalty rates payable on potential future sales of aducanumab, Biogen's Phase 3 investigational treatment for early Alzheimer's disease.

Biogen will make a one-time $50 million payment to Neurimmune in exchange for a 5% reduction in the original royalty rates on potential commercial sales of aducanumab, which follows the 15% reduction in royalty rates announced in October 2017. The reduced royalty rates on potential commercial sales of aducanumab will be in the high single digits to low-teens. Biogen licensed the worldwide rights to aducanumab from Neurimmune in 2007.

"Biogen values our collaboration with Neurimmune, and this step is aligned with our amended agreement from 2017," said Michel Vounatsos, chief executive officer of Biogen. "As we progress our pipeline of candidates for Alzheimer's disease including aducanumab, we hope that a potential treatment for this devastating and debilitating disease will be realized."

"At Neurimmune, we are pleased with the continuous progress of our long-term successful collaboration with Biogen," said Roger Nitsch, chief executive officer of Neurimmune. "This non-dilutive financing supports our growth strategy focused on bringing human-derived antibodies through clinical proof-of-concept in disease areas with high medical need."

**About Aducanumab**
Aducanumab (BIIB037) is an investigational compound being developed for the treatment of Alzheimer's disease. Aducanumab is a human recombinant monoclonal antibody (mAb) derived from a de-identified library of B cells collected from healthy elderly subjects with no signs of cognitive impairment or cognitively impaired elderly subjects with unusually slow cognitive decline using Neurimmune's technology platform called Reverse Translational Medicine (RTM). Biogen licensed aducanumab from Neurimmune under a collaborative development and license agreement.

Aducanumab is thought to target aggregated forms of beta amyloid including soluble oligomers and insoluble fibrils which can form into amyloid plaque in the brain of Alzheimer's disease patients. Based on pre-clinical and Phase 1b data to date, treatment with aducanumab has been shown to reduce amyloid plaque levels.

In August 2016 aducanumab was accepted into the European Medicines Agency's PRIME program. In September 2016 the U.S. Food and Drug Administration accepted aducanumab into its Fast Track program and in April 2017 aducanumab was accepted into the Japanese Ministry of Health, Labour and Welfare's (MHLW) Sakigake Designation System.

As of October 2017, Biogen and Eisai entered into a global collaboration agreement to jointly develop and commercialize aducanumab.

**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.

Biogen routinely posts information that may be important to investors on its website at www.biogen.com. To learn more, please visit www.biogen.com and follow Biogen on social media – Twitter, LinkedIn, Facebook, YouTube.

**About Neurimmune**
Neurimmune is a biopharmaceutical company dedicated to the development of human-derived therapeutic antibodies for the treatment and prevention of human diseases with a high unmet medical need. Established in 2006, Neurimmune has rapidly grown into a leader in the field of recombinant human monoclonal antibody therapeutics. Neurimmune's pipeline comprises high-potential drug candidates at both clinical and advanced preclinical development stages. Aducanumab, an investigational treatment for Alzheimer's disease, partnered with Biogen, is currently in phase 3 clinical trials. Rights in antibodies BIIB054 for Parkinson's disease and BIIB076 for Alzheimer's disease were acquired by Biogen. In 2016, Neurimmune partnered with TVM and Eli Lilly's Chorus unit to advance an antibody for the treatment of amyotrophic lateral sclerosis. In 2017, Neurimmune entered into a collaboration with Ono Pharmaceutical in Japan. Neurimmune's pipeline includes human antibody programs for cardiomyopathy, type-2 diabetes and progressive multifocal leukoencephalopathy, with potential therapies in advanced preclinical stages.

**Biogen Safe Harbor Statement**
This press release contains forward-looking statements, including statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including statements relating to the anticipated benefits and potential of Biogen's collaboration agreement with Neurimmune; the potential of Biogen's commercial business and pipeline programs, including aducanumab; and risks and uncertainties associated with drug development and commercialization. These forward-looking statements may be accompanied by words such as "aim," "anticipate, "believe," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "possible," "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, uncertainty as to whether the anticipated benefits and potential of Biogen's collaboration agreement with Neurimmune can be achieved; risks of unexpected costs or delays; uncertainty of success in the development and potential commercialization of aducanumab, 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 Biogen's data, intellectual property and other proprietary rights and uncertainties relating to intellectual property claims and challenges; and third party collaboration risks. The foregoing sets forth many, but not all, of the factors that could cause actual results to differ from Biogen's 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 Securities and Exchange Commission. These statements are based on Biogen's current beliefs and expectations and speak only as of the date of this press release. Biogen does 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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