Eisai and Biogen Announce Positive Topline Results of the Final Analysis for BAN2401 at 18 Months

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- *The final analysis at 18 months of the 856 patient Phase II clinical study in early Alzheimer's disease demonstrated statistically significant slowing in clinical decline and reduction of amyloid beta accumulated in the brain*
- *First late-stage study data successfully demonstrating potential disease-modifying effects on both clinical function and amyloid beta accumulation in the brain*
- *New data provide compelling evidence to further support amyloid hypothesis as a therapeutic target for Alzheimer's disease*

TOKYO and CAMBRIDGE, Mass., July 05, 2018 (GLOBE NEWSWIRE) -- Eisai Co., Ltd. (Headquarters: Tokyo, CEO: Haruo Naito, "Eisai") and Biogen Inc. (NASDAQ:BIIB) (Headquarters: Cambridge, Massachusetts, United States, CEO: Michel Vounatsos, "Biogen") announced positive topline results from the Phase II study with BAN2401, an anti-amyloid beta protofibril antibody, in 856 patients with early Alzheimer's disease. The study achieved statistical significance on key predefined endpoints evaluating efficacy at 18 months on slowing progression in Alzheimer's Disease Composite Score (ADCOMS) and on reduction of amyloid accumulated in the brain as measured using amyloid-PET (positron emission tomography).

Study 201 (ClinicalTrials.gov identifier NCT01767311) is a placebo-controlled, double-blind, parallel-group, randomized study in 856 patients with mild cognitive impairment (MCI) due to Alzheimer's disease (AD) or mild Alzheimer's dementia (collectively known as early Alzheimer's disease) with confirmed amyloid pathology in the brain. Efficacy was evaluated at 18 months by predefined conventional statistics on ADCOMS, which combines items from the Alzheimer's Disease Assessment Scale-cognitive subscale (ADAS-Cog), the Clinical Dementia Rating Sum of Boxes (CDR-SB) scale and the Mini-Mental State Examination (MMSE) to enable sensitive detection of changes in early AD symptoms. Patients were randomized to five dose regimens, 2.5 mg/kg biweekly, 5 mg/kg monthly, 5 mg/kg biweekly, 10 mg/kg monthly and 10 mg/kg biweekly, or placebo.

Topline results of the final analysis of the study demonstrated a statistically significant slowing of disease progression on the key clinical endpoint (ADCOMS) after 18 months of treatment in patients receiving the highest treatment dose (10 mg/kg biweekly) as compared to placebo. Results of amyloid PET analyses at 18 months, including reduction in amyloid PET standardized uptake value ratio (SUVR) and amyloid PET image visual read of subjects converting from positive to negative for amyloid in the brain, were also statistically significant at this dose. Dose-dependent changes from baseline were observed across the PET results and the clinical endpoints. Further, the highest treatment dose of BAN2401 began to show statistically significant clinical benefit as measured by ADCOMS as early as 6 months including at 12 months.

BAN2401 demonstrated an acceptable tolerability profile through 18 months of study drug administration. The most common treatment emergent adverse events were infusion-related reactions and Amyloid Related Imaging Abnormalities (ARIA). Infusion related reactions were mostly mild to moderate in severity. Incidence of ARIA-E (edema) was not more than 10% in any of the treatment arms, and less than 15% in patients with APOE4 at the highest dose per the study protocol safety and reporting procedures.

Detailed results of the study will be presented at future academic conferences.

"The 18-month results of the BAN2401 trial are impressive and provide important support for the amyloid hypothesis," said Jeff Cummings, M.D., founding director, Cleveland Clinic Lou Ruvo Center for Brain Health. "I look forward to seeing the full data set shared with the broader Alzheimer's community as we advance against this devastating disease."

"This is the first late-stage anti-amyloid antibody study to successfully achieve statistically significant results at 18 months, further validating the amyloid hypothesis," said Lynn Kramer, M.D., Chief Clinical Officer and Chief Medical Officer, Neurology Business Group, Eisai. "We will discuss these very encouraging results with regulatory authorities to determine the best path forward. We continue to work towards the goal of delivering BAN2401 to patients and healthcare professionals as early as possible."

"The prospect of being able to offer meaningful disease-modifying therapies to individuals suffering from this terrible disease is both exciting and humbling," said Alfred Sandrock, M.D., Ph.D., executive vice president and chief medical officer at Biogen. "These BAN2401 18-month data offer important insights in the investigation of potential treatment options for patients with Alzheimer's disease and underscores that neurodegenerative diseases may not be as intractable as they once seemed."

As reported in December 2017, the study did not achieve its primary outcome measure which was designed to enable a potentially more rapid entry into Phase III development based on Bayesian analysis at 12 months of treatment. Upon the final analysis at 18 months using predefined conventional statistical method, the study did demonstrate a statistically significant slowing of disease progression on the key clinical endpoint (ADCOMS) after 12 months of treatment in patients receiving the highest treatment dose (10 mg/kg biweekly) as compared to placebo.

This release discusses investigational uses of an agent in development and is not intended to convey conclusions about efficacy or safety. There is no guarantee that any investigational uses of such product will successfully complete clinical development or gain health authority approval.

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 about results from the Phase 2 study of BAN2401, the potential clinical effects of BAN2401, risks and uncertainties associated with drug development and commercialization, the potential benefits, safety and efficacy of BAN2401, and therapies for other neurological diseases, the timing and status of current and future regulatory filings, the anticipated benefits and potential of Biogen's collaboration arrangements with Eisai and the potential of Biogen's commercial business and pipeline programs, including BAN2401, elenbecestat and aducanumab. 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 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, unexpected concerns that may arise from additional data, analysis or results obtained during clinical trials; regulatory authorities may require additional information or further studies, or may fail or refuse to approve or may delay approval of Biogen's drug candidates, including BAN2401, elenbecestat and/or aducanumab; the occurrence of adverse safety events; risks of unexpected costs or delays; the risks of other unexpected hurdles; uncertainty of success in the development and potential commercialization of BAN2401, elenbecestat and/or 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; uncertainty as to whether the anticipated benefits and potential of Biogen's collaboration arrangement with Eisai can be achieved; 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 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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<Notes to editors>

1. About BAN2401
BAN2401 is a humanized monoclonal antibody for Alzheimer's disease that is the result of a strategic research alliance between Eisai and BioArctic. BAN2401 selectively binds to neutralize and eliminate soluble, toxic Aβ aggregates that are thought to contribute to the neurodegenerative process in Alzheimer's disease. As such, BAN2401 may have the potential to have an effect on disease pathology and to slow down the progression of the disease. Eisai obtained the global rights to study, develop, manufacture and market BAN2401 for the treatment of Alzheimer's disease pursuant to an agreement concluded with BioArctic in December 2007. In March 2014, Eisai and Biogen entered into a joint development and commercialization agreement for BAN2401 and the parties amended that agreement in October 2017.

2. About ADCOMS
Developed by Eisai, ADCOMS (AD Composite Score) combines items from the ADAS-Cog (Alzheimer's Disease Assessment Scale-cognitive subscale), CDR-SB (Clinical Dementia Rating Sum of Boxes) and the MMSE (Mini-Mental State Examination) scales to enable a sensitive detection of changes in clinical functions of early AD symptoms and changes in memory. This Study 201 utilizes ADCOMS as its key endpoint for assessing clinical symptoms.

3. About Amyloid PET Imaging
Amyloid PET (Positron Emission Tomography) imaging is a diagnostic method that enables the visualization of amyloid plaque present in the brain as well as the quantitative evaluation of amyloid plaque distribution and accumulation in the brain via administration of a minute amount of PET tracer, which specifically binds to amyloid plaque and marks it with positron. Amyloid PET imaging enables the assessment of pathology change and assistance of diagnosis of patients with Alzheimer's-disease including MCI, and estimates the clinical effect of disease modifiers based on the amyloid hypothesis.

4. About the Joint Development Agreement between Eisai and Biogen for Alzheimer's Disease
Eisai and Biogen are widely collaborating on the joint development and commercialization of Alzheimer's disease treatments. Eisai serves as the lead in the co-development of elenbecestat, a BACE inhibitor, and BAN2401, an anti-amyloid beta (Aβ) protofibril antibody, while Biogen serves as the lead for co-development of aducanumab, Biogen's investigational anti-amyloid beta (Aβ) antibody for patients with Alzheimer's disease, and the companies plan to pursue marketing authorizations for the three compounds worldwide. If approved, the companies will also co-promote the products in major markets, such as the United States, the European Union and Japan.

As to BAN2401 and elenbecestat, both companies will equally split overall costs, including research and development expenses. Eisai will book all sales for elenbecestat and BAN2401 following marketing approval and launch, and profits will be equally shared between the companies.

5. About Eisai Co., Ltd.
Eisai Co., Ltd. is a leading global research and development-based pharmaceutical company headquartered in Japan. We define our corporate mission as "giving first thought to patients and their families and to increasing the benefits health care provides," which we call our *human health care* (*hhc*) philosophy. With approximately 10,000 employees working across our global network of R&D facilities, manufacturing sites and marketing subsidiaries, we strive to realize our *hhc* philosophy by delivering innovative products to address unmet medical needs, with a particular focus in our strategic areas of Neurology and Oncology.

Leveraging the experience gained from the development and marketing of Aricept®, a treatment for Alzheimer's disease and dementia with Lewy bodies, Eisai has been working to establish a social environment that involves patients in each community in cooperation with various stakeholders including the government, healthcare professionals and care workers, and is estimated to have held over ten thousand dementia awareness events worldwide. As a pioneer in the field of dementia treatment, Eisai is striving to not only develop next generation treatments but also to develop diagnosis methods and provide solutions.

For more information about Eisai Co., Ltd., please visit www.eisai.com.

6. 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 Weissman, 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, 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.

7. About BioArctic AB

BioArctic AB (publ) is a Swedish research-based biopharma company focusing on disease modifying treatments and reliable biomarkers and diagnostics for neurodegenerative diseases, such as Alzheimer's disease and Parkinson's disease. The company also develops a potential treatment for Complete Spinal Cord Injury. BioArctic focuses on innovative treatments in areas with high unmet medical needs. The company was founded in 2003 based on innovative research from Uppsala University, Sweden. Collaborations with universities are of great importance to the company together with our strategically important global partners in the Alzheimer (Eisai) and Parkinson (AbbVie) projects. The project portfolio is a combination of fully funded projects run in partnership with global pharmaceutical companies and innovative in-house projects with significant market- and out-licensing potential. BioArctic's B-share is listed on Nasdaq Stockholm Mid Cap (STO:BIOA B). www.bioarctic.com.