FDA grants accelerated approval for ADUHELM™ as the first and only Alzheimer's disease treatment to address a defining pathology of the disease

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The accumulation of amyloid beta plaques in the brain is a defining pathology of Alzheimer's disease

In clinical trials, ADUHELM reduced amyloid beta plaques by 59 to 71 percent at 18 months of treatment

CAMBRIDGE, Mass. and TOKYO, June 07, 2021 (GLOBE NEWSWIRE) -- Biogen (Nasdaq: BIIB) and Eisai, Co., Ltd. (Tokyo, Japan) today announced that the U.S. Food and Drug Administration (FDA) has granted accelerated approval for ADUHELM™ (aducanumab-avwa) as the first and only Alzheimer's disease treatment to address a defining pathology of the disease by reducing amyloid beta plaques in the brain.

The accelerated approval has been granted based on data from clinical trials demonstrating the effect of ADUHELM on reducing amyloid beta plaques, a biomarker that is reasonably likely to predict clinical benefit, in this case a reduction in clinical decline. Continued approval for ADUHELM's indication as a treatment for Alzheimer's disease may be contingent upon verification of clinical benefit in confirmatory trial(s).

"This historic moment is the culmination of more than a decade of groundbreaking research in the complex field of Alzheimer's disease. We believe this first-in-class medicine will transform the treatment of people living with Alzheimer's disease and spark continuous innovation in the years to come," said Michel Vounatsos, Chief Executive Officer at Biogen. "We are grateful for the contributions of thousands of patients and caregivers who participated in our clinical trials, as well as for the dedication of our scientists and researchers. Together with the healthcare community, we are ready to bring this new medicine to patients and begin to address this growing global health crisis."

"Eisai has been working on the creation of new treatments for Alzheimer's disease since the early 80s through our relentless pursuit to understand the root causes of this disease, and we have spent more than a quarter of a century with people living with Alzheimer's disease to understand their needs," said Haruo Naito, Chief Executive Officer at Eisai. "We are very pleased to be able to open a new chapter in the history of Alzheimer's disease treatment with the approval of ADUHELM. This approval has the potential to bring hope to the future of global health, society and, most importantly, the patients and their families, and represents a great step toward the advancement of holistic ecosystem solutions for this devastating disease."

The efficacy of ADUHELM was evaluated in two Phase 3 clinical trials—EMERGE (Study 1) and ENGAGE (Study 2)—in patients with early stages of Alzheimer's disease (mild cognitive impairment and mild dementia) with confirmed presence of amyloid pathology. The effects of ADUHELM were also assessed in the double-blind, randomized, placebo-controlled, dose-ranging Phase 1b study, PRIME (Study 3). In these studies, ADUHELM consistently showed a dose- and time-dependent effect on the lowering of amyloid beta plaques (by 59 percent [p<0.0001] in ENGAGE, 71 percent [p<0.0001] in EMERGE, and 61 percent [p<0.0001] in PRIME).

The ADUHELM safety profile is well characterized in over 3,000 patients who received at least one dose of ADUHELM. The most frequently reported adverse event was radiographic detection of events termed Amyloid Related Imaging Abnormalities, or "ARIA." ARIA (-E and/or -H) was observed in 41 percent of patients treated with ADUHELM 10 mg/kg compared to 10 percent of patients on placebo. Clinical symptoms were present in 24 percent of patients treated with ADUHELM 10 mg/kg who had an observation of ARIA (-E and/or -H), compared to 5 percent of patients on placebo. The most common symptom in patients with ARIA was headache. Other symptoms associated with ARIA included confusion, dizziness, visual disturbances, and nausea. Adverse reactions that were reported in at least 2 percent of patients treated with ADUHELM and at least 2 percent more frequently than in patients on placebo were ARIA-E, headache, ARIA-H microhemorrhage, ARIA-H superficial siderosis, fall, diarrhea, and confusion/delirium/altered mental status/disorientation.

As part of the accelerated approval, Biogen will conduct a controlled trial to verify the clinical benefit of ADUHELM in patients with Alzheimer's disease.

Dr. Stephen Salloway, Director of Neurology and the Memory and Aging Program at Butler Hospital, said, "This approval represents a major advance in the treatment of Alzheimer's disease. By reducing amyloid beta plaques in the brain, we are addressing one of the defining pathologies of the disease. People with Alzheimer's disease, together with their doctors, can now decide if the treatment is right for them."

"Today's approval of ADUHELM is a transformational breakthrough in the fight to stop this horrible disease. After years of disappointment and despair, this decision offers new hope for many families and a trigger for future investment and innovation," said George Vradenburg, Chairman and Co-Founder of UsAgainstAlzheimer's. "Because ADUHELM was studied in people with early-stage Alzheimer's disease, it will be important for our nation's healthcare system—patients, providers and payers—to be ready for earlier detection, diagnosis and intervention in the treatment of the disease."

Note to Editors: More information about the launch of ADUHELM in the U.S. is available here.

Investor Webcast Information

Biogen will host a live webcast to discuss the approval of ADUHELM on June 8, 2021 at 8:00 a.m. ET. To access the webcast, please go to the Investors section of Biogen's website at investors.biogen.com. An archived version of the webcast will be available following the presentation.

INDICATION and IMPORTANT SAFETY INFORMATION

INDICATION
ADUHELM is a prescription medicine used to treat people with Alzheimer's disease.

IMPORTANT SAFETY INFORMATION
What is the most important information a patient should know about ADUHELM?
ADUHELM can cause serious side effects including: Amyloid Related Imaging Abnormalities or "ARIA". **ARIA is a common side effect that does not usually cause any symptoms but can be serious.** It is most commonly seen as temporary swelling in areas of the brain that usually resolves over time. Some people may also have small spots of bleeding in or on the surface of the brain with the swelling. Although most people with

swelling in areas of the brain do not have symptoms, some people may have symptoms such as: headache, confusion, dizziness, vision changes, and nausea. The patient's healthcare provider will do magnetic resonance imaging (MRI) scans before and during treatment with ADUHELM to check for ARIA. **Patients should call their healthcare provider or go to the nearest hospital emergency room right away if they have any of the symptoms listed above.**

Before receiving ADUHELM, patients should tell their healthcare provider about all of their medical conditions, including if: they are pregnant or plan to become pregnant or are breastfeeding or plan to breastfeed. It is not known if ADUHELM will harm their unborn baby or if aducanumab-avwa (the active ingredient in ADUHELM) passes into breast milk.

What are the possible side effects of ADUHELM? ADUHELM can cause serious side effects, including: See above "What is the most important information a patient should know about ADUHELM?"

Serious allergic reactions. Swelling of the face, lips, mouth, or tongue and hives have happened during an ADUHELM infusion. Patients should tell their healthcare provider if they have any of the symptoms of a serious allergic reaction during or after an ADUHELM infusion.

The most common side effects of ADUHELM include: swelling in areas of the brain, with or without small spots of bleeding in or on the surface of the brain (ARIA); headache and fall. Patients should call their healthcare provider for medical advice about side effects. Patients may report side effects to FDA at 1-800-FDA-1088.

Please see full Prescribing Information including Medication Guide.

About ADUHELM (aducanumab-avwa)

ADUHELM (aducanumab-avwa), a human monoclonal antibody, is the first and only Alzheimer's disease treatment to address a defining pathology of the disease by reducing amyloid beta plaques in the brain. ADUHELM is indicated for the treatment of Alzheimer's disease. This indication is granted under accelerated approval based on reduction in amyloid beta plaques in patients treated with ADUHELM. Continued approval for this indication may be contingent upon verification of clinical benefit in confirmatory trial(s).

Biogen licensed ADUHELM from Neurimmune in 2007 under a collaborative development and license agreement. Since October 2017, Biogen and Eisai have collaborated on the development and commercialization of ADUHELM globally.

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 as well as related therapeutic adjacencies. 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. Today Biogen has the leading portfolio of medicines to treat multiple sclerosis, has introduced the first approved treatment for spinal muscular atrophy, commercializes biosimilars of advanced biologics and is focused on advancing research programs in multiple sclerosis and neuroimmunology, Alzheimer's disease and dementia, neuromuscular disorders, movement disorders, ophthalmology, neuropsychiatry, immunology, acute neurology and neuropathic pain.

We routinely post information that may be important to investors on our website at www.biogen.com. Follow us on social media – Twitter, LinkedIn, Facebook, YouTube.

About Eisai Co., Ltd.

Eisai Co., Ltd. is a leading global pharmaceutical company headquartered in Japan. Eisai's corporate philosophy is based on the *human health care (hhc)* concept, which is to give first thought to patients and their families, and to increase the benefits that health care provides to them. With a global network of R&D facilities, manufacturing sites and marketing subsidiaries, we strive to realize our *hhc* philosophy by delivering innovative products to target diseases with high 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 a treatment for Alzheimer's disease, Eisai aims to establish the "Eisai Dementia Platform." Through this platform, Eisai plans to deliver novel benefits to those living with dementia and their families through constructing a "Dementia Ecosystem," by collaborating with partners such as medical organizations, diagnostic development companies, research organizations, and bio-ventures in addition to private insurance agencies, finance industries, fitness clubs, automobile makers, retailers, and care facilities. For more information about Eisai Co., Ltd., please visit https://www.eisai.com.

Biogen Safe Harbor

This news release contains forward-looking statements, including statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, relating to: Biogen's strategy and plans; potential of, and expectations for, Biogen's commercial business and pipeline programs, including ADUHELM; the potential clinical effects of ADUHELM; the potential benefits, safety and efficacy of ADUHELM; planning and timing for the commercial launch of, and access to, ADUHELM; anticipated manufacturing, distribution and supply of ADUHELM; the treatment of Alzheimer's disease; the anticipated benefits and potential of our collaboration arrangements with Eisai; clinical development programs, clinical trials and data readouts and presentations; and risks and uncertainties associated with drug development and commercialization. These forward-looking statements may be accompanied by such words as "aim," "anticipate," "believe," "could," "estimate," "expect," "forecast," "goal," "intend," "may," "plan," "potential," "possible," "prospect," "will," "would" 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: uncertainty of success in the development and commercialization of ADUHELM; risks relating to the launch of ADUHELM, including preparedness of healthcare providers to treat patients, the ability to obtain and maintain adequate reimbursement for ADUHELM and other unexpected difficulties or hurdles; regulatory submissions may take longer or be more difficult to complete than expected; regulatory authorities may require additional information or further studies, or may fail or refuse to approve or may delay approval of our drug candidates, including ADUHELM; unexpected concerns that may arise from additional data or analysis obtained during clinical trials; actual timing and content of submissions to and decisions made by the regulatory authorities regarding ADUHELM; the occurrence of adverse safety events, restrictions on use or product liability claims; risks of unexpected costs or delays; the risk of other unexpected hurdles; risks relating to investment in our manufacturing capacity; problems with our manufacturing processes; failure to protect and enforce our data, intellectual property and other proprietary rights and uncertainties relating to intellectual property claims and challenges; third party collaboration risks; risks associated with current and potential future healthcare reforms; risks relating to the distribution and sale by third parties of counterfeit or unfit versions of our products; the direct and indirect impacts of the ongoing

COVID-19 pandemic on our business, results of operations and financial condition; and any other risks and uncertainties that are described in other reports we have filed with the U.S. Securities and Exchange Commission. These statements are based on Biogen's current beliefs and expectations and speak only as of the date of this news 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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