Biogen Announces Results from Phase 3b NOVA Study Evaluating Every Six-Week Dosing with Natalizumab in Relapsing-Remitting Multiple Sclerosis

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- *Results show that every six-week natalizumab IV administration provides a high level of efficacy in controlling MS disease activity in patients who switched from the approved every four-week dosing regimen*
- *Data from the first prospective, randomized, controlled study of an extended dosing schedule for natalizumab offer valuable insights and build on positive real-world effectiveness findings[1,2,3]*
- *Updated analyses from the TOUCH® Prescribing Program indicate an average six-week dosing schedule is associated with an 88 percent reduction in the probability of developing PML[4]*

CAMBRIDGE, Mass., Aug. 02, 2021 (GLOBE NEWSWIRE) -- Biogen Inc. (Nasdaq: BIIB) today announced results from the two-year prospective, randomized, interventional, controlled, open-label Phase 3b NOVA study (NCT03689972). NOVA was designed to estimate a potential difference between the efficacy of every six-week (Q6W) 300mg natalizumab intravenous (IV) administration compared to the efficacy of the approved every four-week (Q4W) dose in people treated with TYSABRI® (natalizumab) (n=499) for relapsing-remitting multiple sclerosis (MS) after at least one year of disease stability on a Q4W IV dosing schedule.

The primary endpoint showed a numerical difference between the mean number of new or newly enlarging T2 hyperintense lesions at week 72 of 0.05 (Q4W) and 0.20 (Q6W) (p=0.0755), which based on the full trial results is not clinically meaningful. The numerical difference was driven by a high number of lesions occurring in two participants in the Q6W arm – one patient who developed lesions three months after treatment discontinuation and a second patient who developed asymptomatic progressive multifocal leukoencephalopathy (PML), a rare but serious brain infection. The proportion of patients that developed new or newly enlarging T2 lesions in each arm was 4.1 percent (Q4W) and 4.3 percent (Q6W).

There were no statistically significant or clinically meaningful differences in secondary endpoints at week 72 between the Q4W and Q6W treatment arms, and disease activity was well-controlled in both arms:

- Annualized relapse rates were low at 0.00010 (Q4W) and 0.00013 (Q6W), with 97.9 percent patients in the Q4W arm remaining relapse-free compared to 97.2 percent of patients in the Q6W arm.
- The proportion of patients that developed T1 hypointense lesions in each arm was 1.1 percent (Q4W) and 1.4 percent (Q6W).
- Both arms demonstrated 0.5 percent of participants with gadolinium (Gd) enhancing T1 lesions.

“The NOVA study provides the first prospective, randomized efficacy data of every six-week dosing with natalizumab, building on its well-established clinical profile and the real-world findings [1,2,3],” said Maha Radhakrishnan, M.D., Chief Medical Officer at Biogen. “In addition to the safety analyses from the TOUCH Prescribing Program, which showed significant reduction in the probability of PML, the results from NOVA deliver a more comprehensive understanding of the six-week dosing regimen of natalizumab.”

The NOVA study was initiated to assess the efficacy of Q6W dosing with natalizumab IV administration following analyses from the TOUCH (TYSABRI Outreach: Unified Commitment to Health) Prescribing Program, which showed that extended interval dosing was associated with a significant reduction in the probability of PML. An updated analysis of data from TOUCH showed that an average Q6W dosing regimen is associated with an 88 percent reduction (hazard ratio 0.118, p<0.0001) in the probability of PML in comparison to the approved Q4W dose.[4]

The safety findings in the NOVA study were consistent with the known safety profile of IV natalizumab and the incidence of adverse events and serious adverse events were similar between the two treatment arms. One patient with asymptomatic PML in the Q6W arm was high-risk based on the known risk factors (anti-JCV antibody index >1.5, and >2 years of TYSABRI treatment), underlying the importance of PML monitoring and risk factor considerations in patients treated with natalizumab.

A complete analysis of the study data is ongoing and detailed results will be shared in a future scientific forum. Natalizumab is available commercially under the brand name TYSABRI and the only approved dose is 300mg on a Q4W regimen.

About TYSABRI® (natalizumab)
TYSABRI is a well-established treatment indicated for relapsing forms of multiple sclerosis (MS) in adults that has been proven in clinical trials to slow physical disability progression, reduce the formation of new brain lesions and cut relapses. In the U.S., TYSABRI is indicated as monotherapy for the treatment of patients with relapsing forms of MS. In the European Union, it is indicated as a single disease modifying treatment (DMT) in adults with highly active relapsing-remitting MS (RRMS) for patients with highly active disease activity despite a full and adequate course of treatment with at least one DMT or patients with rapidly evolving severe RRMS. TYSABRI is approved in over 80 countries, and approximately 220,000 people worldwide have been treated with TYSABRI, with over 880,000 patient-years of experience, based on clinical trials and prescription data.[5]

TYSABRI increases the risk of progressive multifocal leukoencephalopathy (PML), a rare opportunistic viral infection of the brain which has been associated with death or severe disability. Risk factors that increase the risk of PML are the presence of anti-JCV antibodies, prior immunosuppressant use and longer TYSABRI treatment duration. Patients who have all three risk factors have the highest risk of developing PML. When initiating and continuing treatment with TYSABRI, physicians should consider whether the expected benefit of TYSABRI is sufficient to offset this risk.

TYSABRI also increases the risk of developing encephalitis and meningitis caused by herpes simplex and varicella zoster viruses, and serious, life-threatening and sometimes fatal cases have been reported in the post-marketing setting in MS patients receiving TYSABRI. Clinically significant liver injury, including acute liver failure requiring transplant, has also been reported in the post-marketing setting. Other serious adverse events that have occurred in TYSABRI-treated patients include hypersensitivity reactions (e.g., anaphylaxis), and infections including opportunistic infections, and a reduction in blood platelet counts.

Please click here for Important Safety Information, including Boxed Warning, and full Prescribing Information, including Medication Guide for TYSABRI in the U.S., or visit your respective country’s product website.

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.
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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, about the potential benefits, safety and efficacy of TYSABRI (natalizumab) and Q6W; the results of the NOVA Phase 3b study and certain real-world data; clinical trials and data readouts and presentations; and the treatment of MS. These forward-looking statements may be identified by words such as “aim,” “anticipate,” “believe,” “could,” “estimate,” “expect,” “forecast,” “goal,” “intend,” “may,” “plan,” “possible,” “potential,” “will,” “would” and other words and terms of similar meaning. 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 the occurrence of adverse safety events and/or unexpected concerns that may arise from additional data or analysis; regulatory authorities may require additional information or further studies, or may fail or refuse to approve or may delay approval of expansion of product labeling; risks of unexpected costs or delays; failure to protect and enforce our data, intellectual property and other proprietary rights and uncertainties relating to intellectual property claims and challenges; product liability claims; and the direct and indirect impacts of the ongoing COVID-19 pandemic on our business, results of operations and financial condition. 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 our most recent annual or quarterly report and in other reports we have 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 news 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.

References:

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2. Butzkueven H et al. Similar Clinical Outcomes for Natalizumab Patients Switching to Every-6-Week Dosing Versus Remaining on Every-4-Week Dosing in Real-World Practice. Poster presented at 8th Joint ACTRIMS-ECTRIMS Virtual Meeting; September 11–13, 2020. P0393.
3. Zhovtis Ryerson L et al. No Difference in Radiologic Outcomes for Natalizumab Patients on Extended Interval Dosing Compared with Standard Interval Dosing in MS PATHS. Poster presented at American Academy of Neurology Virtual Annual Meeting; April 17-22,2021. P15.210.
4. Zhovtis Ryerson et al. Natalizumab Extended Interval Dosing (EID) is Associated with a Reduced Risk of Progressive Multifocal Leukoencephalopathy (PML) Compared with Every-4-week (Q4W) Dosing: Updated Analysis of the TOUCH® Prescribing Program Database. Poster presented at American Academy of Neurology Virtual Annual Meeting; April 17-22, 2021.P15.201
5. Combined post-marketing data based on prescriptions and clinical trials exposure to TYSABRI as of January 31, 2021.

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