



Data from Biogen Idec's Portfolio of Multiple Sclerosis Therapies and Pipeline Featured at Medical Congresses

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-Scientific Presentations Showcase Innovative MS Medicines and Experimental Therapies-

CAMBRIDGE, Mass.--([BUSINESS WIRE](#))--[Biogen Idec](#) (NASDAQ: BIIB) today announced that more than 60 company-sponsored presentations highlighting key data from its industry-leading portfolio of marketed and investigational multiple sclerosis (MS) therapies are being featured during two neurology conferences, further demonstrating its commitment to meeting the individual needs of MS patients and improving outcomes with research that addresses important efficacy and safety questions.

Data are being presented during the annual meeting of the Consortium of Multiple Sclerosis Centers (CMSC) and the Sixth Cooperative Meeting with Americas Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS; May 28 – May 31 in Dallas, Texas); and the Joint Congress of the European Federation of Neurological Societies (EFNS) and European Neurological Society (ENS; May 31 – June 3 in Istanbul, Turkey).

"Our research and development efforts over the past 30 years have positioned Biogen Idec at the forefront of MS innovation, and the scope of data we are presenting at CMSC/ACTRIMS and EFNS/ENS underscores our commitment to improving the lives of people living with MS," said Katherine Dawson, M.D., vice president, global medical neurology at Biogen Idec. "Beyond discovering new treatments, we are also focused on innovating across the spectrum of MS care, investigating different approaches to advancing disease management."

The data at CMSC/ACTRIMS and EFNS/ENS include results from studies of Biogen Idec's currently marketed products – TECFIDERA® (dimethyl fumarate), TYSABRI® (natalizumab), AVONEX® (interferon beta-1a) and FAMPYRA® (prolonged-release fampridine tablets) in markets outside of the U.S. – as well as findings from the clinical programs of its MS pipeline candidates PLEGRIDY™ (peginterferon beta-1a), daclizumab high-yield process ([DAC HYP], EFNS/ENS presentation only) and Anti-LINGO-1 ([BIIB033], EFNS/ENS presentation only).

Details and Biogen Idec data presentations listings for the 2014 annual CMSC/ACTRIMS Meeting and 2014 Joint Congress of the EFNS and ENS can be found by visiting:

- **CMSC/ACTRIMS:** <http://annualmeeting.mscares.org/>
- **Joint Congress of the EFNS and ENS:** <http://www.sessionplan.com/istanbul2014/>

About Biogen Idec

Through cutting-edge science and medicine, Biogen Idec discovers, develops and delivers to patients worldwide innovative therapies for the treatment of neurodegenerative diseases, hemophilia and autoimmune disorders. Founded in 1978, Biogen Idec is the world's oldest independent biotechnology company. Patients worldwide benefit from its leading multiple sclerosis therapies. For product labeling, press releases and additional information about the Company, please visit www.biogenidec.com.

About TECFIDERA

TECFIDERA is an oral therapy for relapsing forms of MS, including relapsing-remitting MS, the most common form of MS. TECFIDERA is currently approved in the United States, the European Union, Canada and Australia. Through a robust clinical trial program and commercial launches starting with the United States in March 2013, greater than 65,000 patients have been treated with TECFIDERA worldwide¹.

TECFIDERA has been proven to reduce MS relapses, progression of disability and MS brain lesions, while demonstrating a favorable safety and tolerability profile. In clinical trials, the most common adverse events associated with TECFIDERA were flushing and gastrointestinal (GI) events. Other side effects included a decrease in mean lymphocyte counts during the first year of treatment, which then plateaued. The efficacy and safety of TECFIDERA has been studied in a large, global clinical program, which includes an ongoing long-term extension study. It is believed that TECFIDERA provides a new approach to treating MS by activating the Nrf2 pathway, although its exact mechanism of action is unknown. This pathway provides a way for cells in the body to defend themselves against inflammation and oxidative stress caused by conditions like MS.

For additional important safety information, and the United States full prescribing information, please visit www.tecfidera.com

About TYSABRI

TYSABRI is approved in 75 countries. In the United States, TYSABRI is indicated as monotherapy for the treatment of patients with relapsing forms of MS. TYSABRI increases the risk of progressive multifocal leukoencephalopathy (PML). When initiating and continuing treatment with TYSABRI, physicians should consider whether the expected benefit of TYSABRI is sufficient to offset this risk. In the European Union, it is indicated as a single disease modifying therapy in highly active relapsing-remitting MS (RRMS) for adult patients who have high disease activity despite treatment with a beta interferon or glatiramer acetate or patients with rapidly evolving severe RRMS.

TYSABRI has advanced the treatment of MS patients with its established efficacy. Data from the Phase 3 AFFIRM trial, which was published in *The New England Journal of Medicine*, showed that after two years, TYSABRI treatment led to a 68 percent relative reduction ($p < 0.001$) in the annualized relapse rate when compared with placebo and reduced the relative risk of disability progression by 42-54 percent ($p < 0.001$).

TYSABRI increases the risk of PML, an opportunistic viral infection of the brain which usually leads to death or severe disability. Infection by the JC virus (JCV) is required for the development of PML and patients who are anti-JCV antibody positive have a higher risk of developing PML. Factors that increase the risk of PML are 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. TYSABRI increases the risk of developing encephalitis and meningitis caused by herpes simplex and varicella zoster viruses. Serious, life-threatening, and sometimes fatal cases have been reported in the post-marketing setting in multiple sclerosis patients receiving TYSABRI. Other serious adverse events that have occurred in TYSABRI-treated patients include hypersensitivity reactions (e.g., anaphylaxis) and infections, including opportunistic and other atypical infections. Clinically significant liver injury has also been reported in the post-marketing setting. A list of adverse events can be found in the full TYSABRI product labeling for each country where it is approved.

For additional important safety information, and the United States full prescribing information, please visit www.TYSABRI.com

About AVONEX

AVONEX is one of the most prescribed treatments for relapsing forms of MS worldwide. AVONEX is indicated for the treatment of patients with relapsing forms of MS to slow the accumulation of physical disability and decrease the frequency of clinical exacerbations. Patients with MS in whom efficacy has been demonstrated include patients who have experienced a first clinical episode and have MRI features consistent with MS.

Symptoms of depression, suicidal ideation, or psychosis, and cases of suicide, have been reported with increased frequency with patients receiving AVONEX. Severe hepatic injury, including cases of hepatic failure has been reported rarely in patients. Rare cases of anaphylaxis have been reported. While beta interferons do not have any known direct cardiac toxicity, cases of congestive heart failure, cardiomyopathy, and cardiomyopathy with congestive heart failure have been reported in patients without known predisposition. Decreased peripheral blood counts have been reported from post-marketing experience. Seizures have been reported in patients using AVONEX, including patients with no prior history of seizure. Autoimmune disorders of multiple target organs have been reported. Routine periodic blood chemistry, hematology, liver function, and thyroid function tests are recommended. AVONEX should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. The most common side effects associated with AVONEX treatment are flu-like symptoms, including chills, fever, myalgia, and asthenia.

For additional important safety information, and the United States full prescribing information, please visit www.AVONEX.com.

About FAMPYRA

FAMPYRA is a prolonged-release (sustained release) tablet formulation of the drug fampridine (4-aminopyridine, 4-AP or dalfampridine). FAMPYRA has been developed to improve walking in adult patients with MS. In MS, damaged myelin exposes channels in the membrane of axons allowing potassium ions to leak, weakening the electrical current sent through nerves. Studies have shown that fampridine can increase conduction along damaged nerves, which may result in improved walking ability.

In clinical trials, the highest incidence of adverse reactions identified with FAMPYRA given at the recommended dose was urinary tract infection, although infection was often not proven by culture. Other adverse drug reactions identified were mainly divided between neurological disorders, such as insomnia, balance disorder, dizziness, paraesthesia, headache and gastrointestinal disorders including nausea, dyspepsia and constipation. In post-marketing experience, there have been reports of seizure. Confounding factors may have contributed to the occurrence of seizure in some patients.

This prolonged-release formulation was developed and is being commercialized in the United States by Acorda Therapeutics, Inc. (NASDAQ: ACOR) under the trade name AMPYRA® (dalfampridine) Extended Release Tablets, 10 mg. Biogen Idec licensed rights from Acorda to develop and commercialize fampridine in all markets outside the United States. Biogen Idec commercializes fampridine in these markets under the trade name FAMPYRA®.

About PLEGRIDY

PLEGRIDY is a new molecular entity in which interferon beta-1a is pegylated to extend its half-life and prolong its exposure in the body. PLEGRIDY, an investigational candidate, is a member of the interferon class of treatments, which is often used as a first-line treatment for MS.

Regulatory authorities in the United States and the European Union accepted the marketing applications for the review of PLEGRIDY in relapsing forms of MS in 2013.

About Daclizumab High-Yield Process

Daclizumab high-yield process (DAC HYP) is in late-stage clinical development for the treatment of RRMS, the most common form of MS. DAC HYP is a humanized monoclonal antibody that binds to CD25, a receptor subunit that is expressed at high levels on T cells that are thought to become abnormally activated in autoimmune conditions, such as MS. Data from previous clinical trials showed that DAC HYP increases CD56^{bright} Natural Killer (NK) cells, which target the activated immune cells that can play a key role in MS without causing general immune cell depletion.

DAC HYP is currently being studied in the DECIDE Phase 3 clinical trial, which is evaluating the efficacy and safety of once-monthly subcutaneous DAC HYP as a monotherapy compared to interferon beta-1a therapy.

Biogen Idec is developing DAC HYP in collaboration with AbbVie, Inc.

¹ Biogen Idec data on file

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