



## Biogen Idec Announces Multiple Sclerosis Franchise and Pipeline Presentations at the 60th Annual Meeting of the American Academy of Neurology

April 15, 2008

CHICAGO--([BUSINESS WIRE](#))--Biogen Idec (NASDAQ: BIIB) today announced that 17 company-sponsored plenary sessions, platform presentations, and poster presentations will be presented during the 60<sup>th</sup> Annual Meeting of the American Academy of Neurology. These presentations will cover four compounds that are marketed or currently in development by Biogen Idec and its partners for the treatment of multiple sclerosis (MS). This includes two approved therapies for MS; TYSABRI<sup>®</sup> (natalizumab) and AVONEX<sup>®</sup> (Interferon beta-1a); and two additional agents in development; BG-12 (dimethyl fumarate) and daclizumab.

"The presentations and posters at AAN show Biogen Idec's broad commitment to those living with MS," said Michael Panzara, MD, MPH, Vice President and Chief Medical Officer, Neurology Strategic Business Unit, Biogen Idec. "No company is doing more for patients with MS than Biogen Idec. We have been a leader in developing and commercializing therapies, with two products on the market to help treat MS, and four additional development programs that target other potential pathways of the disease. Through additional development and research, our hope is that we will be able to both treat the symptoms of MS and eventually reverse the damaging effects that are a result of the disease."

The following are selected highlights of presentations during the meeting:

### TYSABRI

#### Platform Presentations

- Natalizumab Utilization and Safety in Patients with Relapsing Multiple Sclerosis: Updated Results from TOUCH<sup>™</sup> and TYGRIS (Presentation #S02.002 – Tuesday, April 15, 2:15 p.m. CDT)
- The Safety of TYSABRI Re-Dosing and Treatment (STRATA) Study (Presentation #S02.003 – Tuesday, April 15, 2:30 p.m. CDT)
- Statistical Analysis of Clinical Endpoints in Studies of Disease-Modifying Therapies for Multiple Sclerosis (Presentation #S02.001 – Tuesday, April 15, 2:00 p.m. CDT)
- Plasma Exchange Accelerates the Decline of Serum Natalizumab Concentration in Patients with Multiple Sclerosis: Results of the Natalizumab PLEX Study (Presentation #S22.005 – Wednesday, April 16, 3:00 p.m. CDT)
- Plasma Exchange Augments Leukocyte Transmigration across an *In Vitro* Blood-Brain Barrier in Natalizumab-Treated Patients with Multiple Sclerosis (Presentation #S27.005 – Wednesday, April 16, 3:00 p.m. CDT)

#### Poster Presentations

- Natalizumab Increases the Proportion of Patients Free of Clinical or MRI Disease Activity in Relapsing Multiple Sclerosis (Poster #P02.156 – Tuesday, April 15, 11:30 a.m. – 2:30 p.m. CDT)
- Natalizumab Reduces Multiple Sclerosis Severity: Analysis of Patients from the AFFIRM and SENTINEL Studies Using the Multiple Sclerosis Severity Scale (Poster #P04.169 – Wednesday, April 16, 7:00 – 10:00 a.m. CDT)
- Pain in Patients with Multiple Sclerosis: Effects of Natalizumab (Poster #P04.181 – Wednesday, April 16, 7:00 – 10:00 a.m. CDT)
- Impact of Natalizumab on Multiple Sclerosis Patient-Reported Experiences: A Cross Sectional Survey (Poster #P05.065 – Wednesday, April 16, 4:00 – 7:00 p.m. CDT)

### AVONEX

- Progression of Disability over 2 Years Predicts Disability at 8 Years in Relapsing Multiple Sclerosis: Analysis from the Phase 3 Clinical Trial of Intramuscular Interferon Beta-1a (Poster #P04.156 – Wednesday, April 16, 7:00 – 10:00 a.m. CDT)
- Multiple Sclerosis Patients Taking Interferon Beta-1a Have Full Biological Activity in Both Stable and Breakthrough Disease (Poster #P07.150 – Thursday, April 17, 11:30 a.m. – 2:30 p.m. CDT)
- Safety and Tolerability of the First Single-Use, Fully Integrated Autoinjector for IM Interferon Beta-1a (Poster #P02.144 – Tuesday, April 15, 11:30 a.m. – 2:30 p.m. CDT)
- Incidence of Binding and Neutralizing Antibodies in Sera and Cerebrospinal Fluid of Patients with Relapsing-Remitting Multiple Sclerosis Treated with Interferon Beta (Poster #P05.084 – Wednesday, April 16, 4:00 – 7:00 p.m. CDT)
- Efficacy of Interferon Beta-1a in Patients with Chronic Inflammatory Demyelinating Polyradiculoneuropathy (CIDP) (Poster #P07.101 – Thursday, April 17, 11:30 a.m. – 2:30 p.m. CDT)

### BG-12

BG-12 (dimethyl fumarate) is an oral, small molecule immuno-modulator in Phase III development for relapsing forms of MS.

- The Efficacy of BG0012 in Patients with Relapsing-Remitting Multiple Sclerosis: Subgroup Analyses from the Phase 2b

Study (Poster #P02.134 – Tuesday, April 15, 11:30 a.m. – 2:30 p.m. CDT)

- Activation of Nrf2 and Modulation of Disease by BG00012 (Dimethyl Fumarate) Suggest a Dual Cytoprotective and Anti-Inflammatory Mechanism of Action (Poster #P01.085 – Tuesday, April 15, 7:00 – 10:00 a.m. CDT)

### **Daclizumab**

Daclizumab is a humanized monoclonal antibody specific for the IL-2 receptor of T cells that is in Phase II development for MS.

- A Phase 2 Randomized, Double-Blinded, Placebo-Controlled, Multicenter Study of Subcutaneous Daclizumab, a Humanized Anti-CD-25 Monoclonal Antibody, in Patients with Active, Relapsing Forms of Multiple Sclerosis – Week 44 Results (Plenary session #PL01.003 –Wednesday, April 16, 9:00 a.m. CDT)

### **Corporate Therapeutic Update**

On April 15, Biogen Idec will be hosting a symposium for meeting attendees entitled “We’re Taking the Future of MS Personally - Corporate Therapeutic Update from Biogen Idec: MS, Biogen Idec, and the Future of Personalized Medicine.” The symposium will provide an update on Biogen Idec’s multiple sclerosis and neurology products and drug development pipeline, as well as a presentation on the future of personalized medicine in MS by Philip L. De Jager, MD, PhD, Assistant Professor of Neurology at Harvard Medical School. A panel discussion focused on the role of personalized medicine in the future, as well as the need to treat decisively with medications available now, will also be part of the symposium and will include Dr. De Jager, Dr. Panzara, moderator Bruce A. Cree, MD, PhD, MCR, Assistant Professor of Neurology, Multiple Sclerosis Center at University of California San Francisco; Dusan Stefanoski, MD, Director, Rush Multiple Sclerosis Center; Associate Professor of Neurology, Rush University Medical College; Ralf Gold, MD, Professor and Chair, Department of Neurology, St. Josef Hospital, Ruhr University (Germany); and Steven L. Galetta, MD, Van Meter Professor of Neurology, University of Pennsylvania School of Medicine.

### **MS Simulator**

Biogen Idec will have an MS simulator for attendees to use, allowing them to experience the symptoms many patients with MS suffer. The simulator will be available on the exhibit hall floor during the meeting.

### **About Biogen Idec**

Biogen Idec creates new standards of care in therapeutic areas with high unmet medical needs. Founded in 1978, Biogen Idec is a global leader in the discovery, development, manufacturing, and commercialization of innovative therapies. Patients in more than 90 countries benefit from Biogen Idec’s significant products that address diseases such as lymphoma, multiple sclerosis, and rheumatoid arthritis. For product labeling, press releases and additional information about the company, please visit [www.biogenidec.com](http://www.biogenidec.com).

### **About Our Marketed Products and Development Pipeline**

#### **About TYSABRI**

TYSABRI is a treatment approved for relapsing forms of MS in the United States and relapsing-remitting MS in the European Union. According to data that have been published in the *New England Journal of Medicine*, after two years, TYSABRI treatment led to a 68% relative reduction ( $p < 0.001$ ) in the annualized relapse rate compared to placebo and reduced the relative risk of disability progression by 42-54% ( $p < 0.001$ ).

TYSABRI was recently approved to induce and maintain clinical response and remission in adult patients with moderately to severely active Crohn’s disease (CD) with evidence of inflammation who have had an inadequate response to, or are unable to tolerate, conventional CD therapies and inhibitors of TNF-alpha.

TYSABRI increases the risk of progressive multifocal leukoencephalopathy (PML), an opportunistic viral infection of the brain that usually leads to death or severe disability. Other serious adverse events that have occurred in TYSABRI-treated patients included hypersensitivity reactions (e.g., anaphylaxis) and infections. Serious opportunistic and other atypical infections have been observed in TYSABRI-treated patients, some of whom were receiving concurrent immunosuppressants. Herpes infections were slightly more common in patients treated with TYSABRI. In MS and CD clinical trials, the incidence and rate of other serious adverse events, including serious infections, were similar in patients receiving TYSABRI and those receiving placebo. Common adverse events reported in TYSABRI-treated MS patients include headache, fatigue, infusion reactions, urinary tract infections, joint and limb pain, and rash. Other common adverse events reported in TYSABRI-treated CD patients include respiratory tract infections and nausea. Clinically significant liver injury has been reported in patients treated with TYSABRI in the post-marketing setting.

TYSABRI is approved in more than 30 countries including the United States and many countries throughout the European Union, as well as Switzerland, Canada, Australia, New Zealand and Israel.

For more information about TYSABRI please visit [www.tysabri.com](http://www.tysabri.com), [www.biogenidec.com](http://www.biogenidec.com) or [www.elan.com](http://www.elan.com), or call 1-800-456-2255.

#### **About AVONEX**

AVONEX is the most prescribed treatment for relapsing forms of MS worldwide, with more than 130,000 patients on therapy. It is used worldwide as a treatment for relapsing forms of MS to slow the progression of disability and reduce relapses. AVONEX is also approved for patients who have their first clinical MS attack and have a brain MRI scan consistent with MS.

The most common side effects associated with AVONEX multiple sclerosis treatment are flu-like symptoms, including myalgia, fever, fatigue, headache, chills, nausea, vomiting, pain and asthenia.

AVONEX should be used with caution in patients with depression or other mood disorders and in patients with seizure disorders. AVONEX should not be used by pregnant women. Patients with cardiac disease should be closely monitored. Patients should also be monitored for signs of hepatic injury. Routine periodic blood chemistry and hematology tests are recommended during treatment with AVONEX. Rare cases of anaphylaxis have been reported. Please see complete prescribing information available at [www.AVONEX.com](http://www.AVONEX.com).

#### **About BG-12**

BG-12 is currently in Phase III clinical development.

#### **About Daclizumab**

Daclizumab is currently in Phase II clinical development. Biogen Idec is developing daclizumab for MS in collaboration with PDL BioPharma, Inc.

**Safe Harbor**

This press release contains forward-looking statements about our marketed products and our products in development. Drug development and commercialization involves a high degree of risk, and all of our products are subject to a number of risks and uncertainties. Important risk factors include the risk that we may be unable to adequately address concerns or questions raised by FDA or other regulatory authorities, the occurrence of adverse safety events with our products, that concerns may arise from additional data, that we may not be able to get the drugs in development approved and that the incidence and/or risk of any safety issues with respect to our products may be higher than observed in clinical trials. The company may also encounter other unexpected hurdles. Additional risks and uncertainties that are described in Item 1.A. Risk Factors in our reports on Form 10-K and Form 10-Q and in other periodic and current reports we file with the SEC. These forward-looking statements speak only as of the date of this press release, and we do not undertake any obligation to publicly update any forward-looking statements, whether as a result of new information, future events, or otherwise.

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