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September 11, 2009

Results from IMPROVE Study Show MRI Benefits of Rebif[®] Seen Early in Relapsing-Remitting Multiple Sclerosis Treatment and Sustained Over Time

- **Data presented at the 25th Congress of the European Committee for the Treatment and Research in Multiple Sclerosis (ECTRIMS) held in Düsseldorf, Germany, from September 9-12, 2009.**

Geneva, Switzerland, September 11, 2009 – Merck Serono, a division of Merck KGaA, Darmstadt, Germany, announced today the results of the complete 40-week IMPROVE (Investigating MRI Parameters with Rebif[®] imprOVEd formulation) study. These data show a significant 69% reduction in the number of combined unique brain MRI lesions in patients with relapsing-remitting multiple sclerosis (RRMS) at 16 weeks after initiation of treatment with Rebif[®] (44 micrograms three times a week) compared to placebo (3.0 versus 0.9 in the placebo and Rebif[®] groups respectively, $p < 0.001$), (primary endpoint). A post-hoc analysis showed that this positive effect can be detected as early as 4 weeks after treatment initiation. The decreased number of brain lesions was sustained over the 40-week trial period in patients treated with Rebif[®]. The 16-week results also show a 58% reduction in relapse rate versus placebo ($p = 0.0104$).

“The IMPROVE study confirms the consistency of the safety profile of Rebif[®], while showing further evidence of the early onset of action of Rebif[®] on MRI outcomes in patients suffering from multiple sclerosis,” said Dr. Nicola De Stefano, Professor of

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Neurology, Department of Neurological and Behavioural Sciences, University of Siena, Italy, and the Principal Investigator of the IMPROVE trial.

The 40-week analysis shows that patients originally randomized to placebo and switched to Rebif® at week 16 had a statistically significant decrease in combined unique active (CUA) lesions (mean number of CUA lesions/patient/scan decreased from 2.31 while on placebo (up to week 16) to 0.65 while on Rebif® (weeks 17-40), $p < 0.001$) (secondary endpoint).

The safety profile of Rebif® reported in this study is consistent with the known safety profile of Rebif®. No unexpected safety concerns were identified in this study.

About the IMPROVE Study

The IMPROVE study was a two-arm, randomized, double-blind, controlled, multicenter, international Phase IIIb study to evaluate the efficacy, safety and tolerability of a reformulated version of Rebif® in patients with relapsing-remitting MS (according to the revised McDonald criteria) and evidence of active disease. A total of 180 patients were randomized in a 2:1 ratio to receive either 44 micrograms of Rebif® three times a week, subcutaneously, or placebo for an initial period of 16 weeks. At the end of the initial 16-week treatment period, patients from the placebo group were switched in a single-blinded fashion to treatment with Rebif® 44 micrograms three times a week subcutaneously for a further period of 24 weeks (the physician assessing treatment response and side effects was blinded). Patients who were initially assigned to the Rebif® group continued to receive active treatment for an additional period of 24 weeks. The duration of the whole treatment period was 40 weeks.

The primary endpoint was the number of combined unique active (CUA) MRI brain lesions at Week 16 in the Rebif® group compared with the placebo group, using the baseline MRI scan as a reference. The secondary endpoint was the number of CUA lesions/patient/scan during the double-blind phase (Weeks 1–16) versus the rater-blind phase (Weeks 17–40) in patients originally randomized to placebo.

About Rebif®

Rebif® (interferon beta-1a) is a disease-modifying drug used to treat relapsing forms of multiple sclerosis (MS) and is similar to the interferon beta protein produced by the human body. The efficacy of Rebif® in chronic progressive MS has not been established. Interferons are thought to help modulate the body's immune system and reduce inflammation. The exact mechanism is unknown.

Rebif®, which was approved in Europe in 1998 and in the US in 2002, is registered in more than 80 countries worldwide. Rebif® has been proven to delay the progression of disability, reduce the frequency of

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relapses and reduce MRI lesion activity and area*. Rebif® is available in a 22 micrograms and 44 micrograms ready-to-use pre-filled syringe and a titration pack (8.8 micrograms). Rebif® is now available in UK, Germany and Denmark, as well as in Canada, in two multidose cartridges [132 micrograms (three doses of 44 micrograms) and 66 micrograms (three doses of 22 micrograms)] for the use with the RebiSmart device.

Rebif® should be used with caution in patients with a history of depression, liver disease and seizures. Most commonly reported side effects are flu-like symptoms, injection site disorders, elevation of liver enzymes and blood cell abnormalities. Patients, especially those with depression, seizure disorders, or liver problems, should discuss treatment with Rebif® with their doctors.

The reformulated version of Rebif® has been approved in the European Union, Switzerland, Australia and Canada. It is under regulatory review in other countries including the United States.

* The exact correlation between MRI findings and the current or future clinical status of patients, including disability progression, is unknown.

About Merck Serono and multiple sclerosis

Merck Serono is a leader in multiple sclerosis (MS) with Rebif® (interferon beta-1a), a disease-modifying drug used to treat relapsing forms of MS, which is registered in more than 80 countries worldwide. Full prescribing information for this product can be obtained by contacting the Company or visiting its website. Additional therapeutic options are currently under development at Merck Serono, including 'Cladribine Tablets', currently undergoing registration review in Europe, as well as several products in early stage development. Merck Serono also is taking a leading role in developing an understanding of the role of genetics in MS.

About multiple sclerosis

Multiple sclerosis (MS) is a chronic, inflammatory condition of the central nervous system and is the most common, non-traumatic, disabling neurological disease in young adults. It is estimated that more than two million people have MS worldwide. While symptoms can vary, the most common symptoms of MS include blurred vision, numbness or tingling in the limbs and problems with strength and coordination. The relapsing forms of MS are the most common.

About Merck Serono

Merck Serono is the division for innovative prescription pharmaceuticals of Merck KGaA, Darmstadt, Germany, a global pharmaceutical and chemical company. Headquartered in Geneva, Switzerland, Merck Serono discovers, develops, manufactures and markets innovative small molecules and biopharmaceuticals to help patients with unmet medical needs. In the United States and Canada, EMD Serono operates through separately incorporated affiliates.

Merck Serono has leading brands serving patients with cancer (Erbix®), multiple sclerosis (Rebif®, interferon beta-1a), infertility (Gonal-f®, follitropin alpha), endocrine and metabolic disorders (Saizen® and Serostim®, somatropin), (Kuvan®, sapropterin dihydrochloride) as well as cardiometabolic diseases (Glucophage®, metformin), (Concor®, bisoprolol), (Euthyrox®, levothyroxine). Not all products are available in all markets.

With an annual R&D expenditure of around € 1bn, Merck Serono is committed to growing its business in specialist-focused therapeutic areas including neurodegenerative diseases, oncology, fertility and



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endocrinology, as well as new areas potentially arising out of research and development in autoimmune and inflammatory diseases.

About Merck

Merck is a global pharmaceutical and chemical company with total revenues of € 7.6 billion in 2008, a history that began in 1668, and a future shaped by approximately 33,000 employees in 60 countries. Its success is characterized by innovations from entrepreneurial employees. Merck's operating activities come under the umbrella of Merck KGaA, in which the Merck family holds an approximately 70% interest and free shareholders own the remaining approximately 30%. In 1917 the U.S. subsidiary Merck & Co. was expropriated and has been an independent company ever since.

For more information, please visit www.merckserono.com or www.merck.de