BioMarin Announces FDA Approval for Naglazyme

First Specific Therapy Approved for the Treatment of MPS VI

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BioMarin Pharmaceutical Inc. (Nasdaq and SWX: BMRN) announced today that the U.S. Food and Drug Administration (FDA) has granted marketing approval for Naglazyme(TM) (galsulfase), the first specific therapy approved for the treatment of mucopolysaccharidosis VI (MPS VI). As the first drug ever approved for MPS VI, Naglazyme has been granted orphan drug status in the United States, which confers seven years of market exclusivity. BioMarin plans to launch Naglazyme in the United States in approximately 30 days.

Naglazyme is indicated for patients with MPS VI. Naglazyme has been shown to improve walking and stair-climbing capacity. As post-marketing clinical commitments, BioMarin has agreed with the FDA to evaluate the effect of Naglazyme treatment on skeletal dysplasia in patients under the age of 1 and to maintain a clinical surveillance program to monitor patients on commercial therapy; no extension study of Phase 3 patients was required.

Clinical trials have demonstrated that Naglazyme provides clinically important benefits for MPS VI patients, specifically, improved endurance as demonstrated by the 12-minute walk test and 3-minute stair climb. Naglazyme reduced the excess carbohydrates (glycosaminoglycans, or 'GAGs') that are excreted in the urine of patients with MPS VI, an indication of enzymatic bioactivity.

"I have observed the positive effect that enzyme replacement therapy with Naglazyme can have on MPS VI patients, and I am very pleased that it will soon be made commercially available to those who need it," stated Paul Harmatz, M.D., Associate Director of the Pediatric Clinical Research Center at Children's Hospital & Research Center at Oakland, California, and Principal Investigator of the Phase 3 clinical trial of Naglazyme. "With Naglazyme now approved, physicians, for the first time, have a therapeutic to treat the underlying cause of MPS VI, increasing their ability to provide better care for MPS VI patients with this life-threatening disease."

"The approval of Naglazyme is a significant milestone for those whose life has been affected by MPS VI and for BioMarin," stated Jean-Jacques Bienaime, Chief Executive Officer of BioMarin. "The disease burden of MPS VI is enormous for patients, families and physicians. Naglazyme holds a very real possibility for making MPS VI a more manageable disease." Mr. Bienaime continued, "BioMarin developed Naglazyme on its own and now, with our U.S.- based sales force in place, we are ready to bring it to market. Our efforts to identify individuals with MPS VI in the years leading up to this day have positioned us to rapidly get patients on therapy come product launch. I would like to thank the individuals with MPS VI and their families and physicians as well as BioMarin employees for their years of hard work and dedication toward making Naglazyme for MPS VI a reality."

An application to market Naglazyme is currently pending in the European Union. BioMarin expects to receive an opinion from the European Commission in the fourth quarter of 2005, and if positive, final approval in early 2006.

Phase 3 Clinical Trial and Extension Study Results

BioMarin completed a 24-week, Phase 3, multi-center, double-blind, placebo-controlled trial involving 39 patients. Patients were randomized on a one-to-one basis into a Naglazyme treatment group or a placebo control group and received a weekly intravenous infusion of either 1.0 mg/kg of Naglazyme or placebo solution. During the 24-week period, 19 patients received weekly intravenous infusions of Naglazyme and 20 patients received weekly placebo infusions. One patient in the placebo group dropped out of the trial for reasons unrelated to treatment. All 38 patients who completed the trial elected to receive Naglazyme in an ongoing open-label extension study.

Efficacy Data

After 24 weeks of treatment, patients receiving Naglazyme demonstrated a statistically significant improvement ($p=0.025$) in endurance compared to patients receiving placebo as measured by the change relative to baseline in the distance walked in 12 minutes. The Naglazyme-treated group showed greater mean increase in distance walked in 12 minutes compared to the placebo group. The model-derived mean difference measured as a change from baseline between patients receiving Naglazyme and patients receiving placebo after 24 weeks was 92 +/- 40 meters. Following an additional 24 weeks of treatment with Naglazyme in the extension study, for a total of 48 weeks, patients demonstrated further improvement in endurance as measured by the change in distance walked in 12 minutes, relative to baseline. From week 24 to week 48, patients receiving Naglazyme

since week one of the trial improved their mean walk distance an additional 36 +/- 97 meters.

After 24 weeks of treatment, patients receiving Naglazyme demonstrated an improvement (p=0.053) in stair-climbing ability compared to patients receiving placebo as measured by the change relative to baseline in the number of stairs climbed per minute. The Naglazyme-treated group showed greater mean increase in the rate of stairs climbed in three minutes compared to the placebo group. The model-derived mean difference measured as a change from baseline between patients receiving Naglazyme and patients receiving placebo after 24 weeks was 5.7 +/- 2.9 stairs per minute. Following an additional 24 weeks of treatment with Naglazyme in the extension study, from week 24 to week 48, patients receiving Naglazyme since week one of the trial improved their mean number of stairs climbed per minute by an additional 3 +/- 7 stairs.

After 24 weeks of treatment, patients receiving Naglazyme experienced a statistically significant reduction (p<0.001) of GAGs excreted in the urine, compared to patients receiving placebo. The average urinary GAG reduction in patients receiving Naglazyme after 24 weeks was 75.5 percent. This initial reduction in urinary GAG levels was maintained following an additional 24 weeks of treatment in the extension study.

While in the extension study, patients who receive placebo solution during the initial 24-week trial demonstrated an improvement in endurance following 24 weeks of treatment with Naglazyme as measured by the change in distance walked in 12 minutes, relative to baseline. From week 24 to week 48, the original placebo group demonstrated a mean increase of 65 meters relative to week 24 values. These patients also demonstrated an average improvement in stair-climbing ability as measured by stairs climbed in three minutes, relative to baseline, of 5.7 stairs per minute following 24 weeks of treatment with Naglazyme. Additionally, patients initially receiving placebo demonstrated a reduction in urinary GAG levels following 24 weeks of treatment with Naglazyme comparable to that observed for those treated in the initial 24-week, double-blind portion of the trial.

Safety Data

Data from the Phase 3 clinical trial and extension study indicate that Naglazyme was generally safe. The most common adverse events observed in clinical trials in Naglazyme-treated patients were headache, fever, arthralgia, vomiting, upper respiratory infections, abdominal pain, diarrhea, ear pain, cough, and otitis media. Over 95 percent of the infusion-related adverse events were considered mild or moderate and were easily managed. Infusion-related adverse events commonly included fever, chills/rigors, headache, rash, and mild to moderate urticaria. Severe reactions included angioneurotic edema, hypotension, dyspnea, bronchospasm, respiratory distress, apnea, and urticaria. No patients discontinued Naglazyme infusions for adverse events and all patients that completed the double-blind portion of the trial continue to receive weekly infusions of Naglazyme. Nearly all patients developed antibodies as a result of treatment, but the level of the immune response did not correlate with adverse events or impact the improvements experienced in endurance. Evaluation of airway patency should be considered prior to the initiation of treatment. Consideration to delay Naglazyme infusion should be given when treating patients who present with an acute febrile or respiratory illness.

About MPS VI

MPS VI (also known as Maroteaux-Lamy syndrome) is a debilitating, life-threatening genetic disease caused by a deficiency of the enzyme N-acetylgalactosamine 4-sulfatase. This enzyme deficiency leads to the accumulation of certain complex carbohydrates, glycosaminoglycans (GAGs), in the lysosomes, giving rise to progressive cellular, tissue and organ system dysfunction. An estimated 1,100 individuals in the developed world have MPS VI. The majority of individuals with MPS VI die from disease-related complications between childhood and early adulthood. Additional information can be found at www.mpsvi.com.

About BioMarin

BioMarin develops and commercializes innovative biopharmaceuticals for serious diseases and medical conditions. The company's product portfolio is comprised of three approved products and multiple product and preclinical product candidates. Approved products include Naglazyme(TM) (galsulfase) for mucopolysaccharidosis VI (MPS VI), a product wholly developed and commercialized by BioMarin, Aldurazyme(R) (laronidase) for mucopolysaccharidosis I (MPS I), and Orapred(R) (prednisolone sodium phosphate oral solution) for severe asthma. Investigational product candidates include Phenoptin(TM) (sapropterin hydrochloride), a Phase 3 product candidate for the treatment of phenylketonuria (PKU). For additional information, please visit www.BMRN.com. Information on BioMarin's website is not incorporated by reference into this press release.

Forward-Looking Statement

This press release contains forward-looking statements about the business prospects of BioMarin

Pharmaceutical Inc., including, without limitation, statements about: the development and commercialization of Naglazyme; expectations related to post-marketing commitments for Naglazyme; and actions by regulatory authorities. These forward-looking statements are predictions and involve risks and uncertainties such that actual results may differ materially from these statements. These risks and uncertainties include, among others: possible delays in launching Naglazyme in the United States and slow market penetration following launch; the content and timing of decisions by the European Commission and other regulatory authorities concerning Naglazyme; issues or complications associated with post-marketing commitments; and those factors detailed in BioMarin's filings with the Securities and Exchange Commission, including, without limitation, the factors contained under the caption "Factors That May Affect Future Results" in BioMarin's 2004 Annual Report on Form 10-K and the factors contained in BioMarin's reports on Forms 10-Q and 8-K. Stockholders are urged not to place undue reliance on forward-looking statements, which speak only as of the date hereof. BioMarin is under no obligation, and expressly disclaims any obligation, to update or alter any forward-looking statement, whether as a result of new information, future events or otherwise.

NOTE: Aldurazyme(R) is a registered trademark of BioMarin/Genzyme LLC. Orapred(R) is a registered trademark of Medicis Pediatrics, Inc. and is used under license.

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