BioMarin Initiates Phase 2 Clinical Study of PEG-PAL in PKU

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BioMarin Pharmaceutical Inc. announced today that the first patient has initiated treatment in the Phase 2 clinical study of PEG-PAL (PEGylated recombinant phenylalanine ammonia lyase) for the treatment of phenylketonuria (PKU). Initial top-line results are expected in mid-2010.

"We remain optimistic on this program and believe that, if approved, PEG-PAL may offer a significant benefit for many PKU patients, especially those who do not respond adequately to Kuvan," said Hank Fuchs, M.D., Chief Medical Officer of BioMarin. "In our view, the flexible design of the Phase 2 protocol provides multiple opportunities to arrive at an optimal dose and dosing frequency that is tolerable in at least in a sub-segment of the PKU population. We are encouraged by the results of the Phase 1 study, which showed a substantial blood Phe level reduction across all patients in the fifth cohort at a dose of 0.1mg/kg, no serious adverse events, and reactions as expected with a protein of this nature.

The Phase 2 clinical trial is an open-label, multi-center study to be conducted in up to 35 patients in a series of dose-escalating cohorts from 0.001 mg/kg. The primary treatment period of eight once weekly injections at a fixed dose will be followed by eight weeks of dose and frequency optimization and an extension period where doses can be increased up to 2.0 mg/kg/week.

The primary objective is to evaluate the effect of PEG-PAL on blood Phe concentrations in subjects with PKU. The secondary objectives are to evaluate the safety and tolerability, immune response and steady state pharmacokinetics of subcutaneous injections of multiple dose levels of PEG-PAL.

About PEG-PAL

PEG-PAL (PEGylated recombinant phenylalanine ammonia lyase) is an investigational enzyme substitution therapy for the treatment of PKU. Pharmacology studies conducted in the PKU mouse model demonstrated that weekly subcutaneous administrations of PEG-PAL resulted in a significant and stable decrease of plasma phenylalanine. BioMarin estimates that PEG-PAL could be a potential treatment option for a significant portion of the PKU population.

About BioMarin

BioMarin develops and commercializes innovative biopharmaceuticals for serious diseases and medical conditions. The company's product portfolio comprises three approved products and multiple clinical and pre-clinical product candidates. Approved products include Naglazyme (galsulfase) for mucopolysaccharidosis VI (MPS VI), a product wholly developed and commercialized by BioMarin; Aldurazyme (laronidase) for mucopolysaccharidosis I (MPS I), a product which BioMarin developed through a 50/50 joint venture with Genzyme Corporation; and Kuvan (sapropterin dihydrochloride) Tablets, for phenylketonuria (PKU), developed in partnership with Merck Serono, a division of Merck KGaA of Darmstadt, Germany. Other product candidates include PEG-PAL (PEGylated recombinant phenylalanine ammonia lyase), which is currently in Phase II clinical development for the treatment of PKU and GALNS (N-acetylgalactosamine 6-sulfatase), which is currently in Phase I/II clinical development for the treatment of MPS IVA. 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 of its product candidate PEG-PAL, and expectations related to clinical trials of PEG-PAL. 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: the results of current and planned clinical trials related to PEG-PAL; the content and timing of decisions by the U.S. Food and Drug Administration and other regulatory agencies, particularly with respect to PEG-PAL, and those factors detailed in BioMarin's filings with the Securities and Exchange Commission, including, without limitation, the factors contained under the caption "Risk Factors" in BioMarin's 2008 Annual Report on Form 10-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.

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