Enobia Pharma Raises US $40 million

Montreal, QC, August 9, 2011 – Enobia Pharma Inc., a clinical stage biotech company focused on developing novel therapeutics for serious bone disorders, today announced that it has raised US $40 million through the private placement of approximately 13,724,000 shares of its common stock to new pharmaceutical and financial investors. The proceeds will be used to fund the ongoing development of ENB-0040, Enobia's enzyme replacement therapy (ERT) for hypophosphatasia, a rare and potentially life threatening genetic bone disorder for which there is no currently approved therapy. BofA Merrill Lynch acted as the exclusive placement agent to the company.

"We are pleased by the strong interest from both strategic and financial investors. We look forward to building a first rate biopharmaceutical company focused on rare genetic bone diseases," said Enobia Chairman and OrbiMed General Partner Jonathan Silverstein.

Enobia has completed two 6-month clinical studies in hypophosphatasia; a phase I/II study initiated in October 2008 in infants and young children with life threatening hypophosphatasia, and a phase II study in children aged 5-12. These patients continue to receive therapy in ongoing extension studies. Updates of infantile and juvenile data will be given at the upcoming SSIEM (September 2, 2011 Geneva Switzerland) and ASBMR (September 16, 2011 San Diego, CA) meetings. Enobia is also enrolling additional infants and children with severe hypophosphatasia under the age of 5.

One year treatment results from a Phase II study in adolescents and adults with hypophosphatasia will be available in the first half of 2012. ENB-0040 manufactured at commercial scale is now being used in clinical trials.

Enobia was also recently awarded a US $1.2 million FDA Orphan Grant for the long-term ENB-0040 treatment of infants and young children with life-threatening or severely debilitating hypophosphatasia. Enobia will receive these funds over the next three years with the opportunity to apply for additional funding in subsequent years.

About ENB-0040

There are currently no therapies approved for hypophosphatasia (HPP), a rare inherited metabolic disease characterized primarily by defective bone mineralization with multi-systemic sequelae caused by a deficiency in the enzyme tissue non-specific alkaline phosphatase (TNSALP). ENB-0040 (asfotase alfa) is an investigational subcutaneous enzyme replacement therapy for HPP. ENB-0040 is designed to directly target TNSALP to the bone in order to correct the enzyme deficiency, which could lead to restoration of normal bone mineralization and function. ENB-0040, awarded orphan designation in the U.S. and EU in 2008 and Fast Track status in 2009, is currently in Phase IIb clinical development.

About Enobia Pharma Inc.

Enobia Pharma Inc. is a private Montreal based company focused on the development of therapeutics to treat serious bone disorders for which there are no drug therapies currently approved. ENB-0040, an investigational drug for the treatment of hypophosphatasia, is the Company's lead program. For more information, please visit www.enobia.com.