Bio-Path Holdings, Inc.

Initial Data from Bio-Path Holdings' Phase I Clinical Trial Accepted for Presentation at American Society of Hematology Annual Meeting

FOR IMMEDIATE RELEASE

October 4, 2011 HOUSTON, TX – Bio-Path Holdings, Inc., (OTC BB: BPTH) ("Bio-Path"), a biotechnology company developing a liposomal delivery technology for nucleic acid cancer drugs, today announced that an abstract entitled, "Safety, Pharmacokinetics, and Efficacy of BP-100.1.01 (L-Grb-2 Antisense Oligonucleotide) in Patients with Refractory or Relapsed Acute Myeloid Leukemia (AML), Philadelphia Chromosome Positive Chronic Myelogenous Leukemia (CML), Acute Lymphoblastic Leukemia (ALL), and Myelodysplastic Syndrome (MDS)" has been accepted for a poster presentation at the 53rd Annual Meeting of the American Society of Hematology (ASH) to be held December 10 to13, 2011 in San Diego, California. The ASH Annual Meeting is the premier event for physicians and healthcare researchers involved in hematology to meet to learn about the latest developments to treat blood diseases.

The abstract contains a summary of the results of the first cohort in the on-going Phase I clinical trial of Bio-Path's lead drug candidate Liposomal Grb-2 being evaluated in patients with blood cancers. The lead author for the abstract is Jorge Cortes, M.D., Professor of Leukemia at The University of Texas MD Anderson Cancer Center and Principle Investigator for the Phase I clinical trial.

"We are extremely pleased and honored that this abstract has been accepted for presentation at this important meeting of physicians and researchers in the field of hematology," said Peter Nielsen, President and Chief Executive Officer of Bio-Path. "The abstract accepted for presentation is a summary of results from a very early stage in our Phase I program. We believe the inclusion of these early results at the ASH annual meeting indicates that the reviewers see the potential importance of our drug candidate Liposomal Grb-2 as a new and novel way of treating AML, CML, ALL and MDS blood cancers."

Bio-Path is developing a neutral lipid-based liposome delivery technology for nucleic acid cancer drugs (including antisense and siRNA molecules), a delivery technology that forms microscopic-sized vehicles to safely deliver these drugs to their intended target cancer cells.

Bio-Path's drug delivery technology involves microscopic-sized liposome particles that distribute nucleic acid drugs systemically and safely throughout the human body, via simple intravenous infusion. The delivery technology can be applied both to double stranded (siRNA) and single stranded (antisense) nucleic acid compounds with the potential to revolutionize the treatment of cancer and other diseases where drugable targets of disease are well characterized. Bio-Path also anticipates developing liposome tumor targeting technology, representing next-generation enhancements to the Company's core liposome delivery technology.

About Bio-Path Holdings, Inc.

Bio-Path is a biotechnology company focused on developing therapeutic products utilizing its proprietary liposomal delivery technology designed to systemically distribute nucleic acid drugs throughout the human body with a simple intravenous transfusion. Bio-Path's lead product candidate, Liposomal Grb-2, is in a Phase I study for blood cancers. Bio-Path's second drug candidate, also a liposomal antisense drug, is ready for the clinic where it will be evaluated in lymphoma and solid tumors, and its third candidate is a liposomal siRNA cancer drug that is in the final pre-clinical development stage. These product candidates and the delivery technology have been licensed from The University of Texas MD Anderson Cancer Center.

Any statements that are not historical facts contained in this release are forward-looking statements that involve risks and uncertainties, including Bio-Path's ability to raise needed additional capital on a timely basis in order for it to continue its operations, have success in the clinical development of its technologies, the timing of enrollment and release of data in such clinical studies and the accuracy of such data, limited patient populations of early stage clinical studies and the possibility that results from later stage clinical trials with much larger patient populations may not be consistent with earlier stage clinical trials, and such other risks which are identified in the Company's most recent Annual Report on Form 10-K and in any subsequent quarterly reports on Form 10-Q. These documents are available on request from Bio-Path Holdings or at www.sec.gov. Bio-Path disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

For more information, please visit the Company's website at http://www.biopathholdings.com.

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