Bio-Path Holdings, Inc.

Bio-Path Holdings Successfully Completes Cohort 6 of Phase I Clinical Trial Evaluating Liposomal Grb-2 in Blood Cancers

- Company Plans Phase II Clinical Trials for Lead Compound-

FOR IMMEDIATE RELEASE

HOUSTON, TX, October 7, 2014 – Bio-Path Holdings, Inc., (NASDAQ: BPTH) ("Bio-Path"), a biotechnology company developing a liposomal delivery technology for nucleic acid cancer drugs, today announced that it has successfully completed Cohort 6 of its Phase I clinical trial evaluating lead compound, Liposomal Grb-2, in blood cancers. Bio-Path now plans to move the compound into Phase II clinical trials.

Three patients were evaluated in Cohort 6 of the Phase I clinical trial and this cohort was consistent with previous cohorts in demonstrating that Liposomal Grb-2 is safe and well tolerated with the drug showing signs of anti-leukemia activity. As a result of the safety profile of the drug, a maximum tolerated dose has yet to be reached.

A total of 34 patients, of which 21 were evaluable, enrolled into the Phase I clinical trial, which evaluated escalating doses of Liposomal Grb-2 (5, 10, 20, 40, 60 and 90 mg/m^2). Patients were treated twice a week for four weeks, for a total of eight doses.

Bio-Path is now completing an analysis of the Phase I data to submit to the U.S. Food and Drug Administration (FDA). It expects to begin its Phase II program by the end of 2014. It is anticipated that the first of three Phase II clinical trials will evaluate Liposomal Grb-2 as a combination therapy in Acute Myeloid Leukemia (AML).

"The completion of Cohort 6 is a significant milestone for Bio-Path and moves the Company into its next phase of development with its novel liposomal delivery technology," said Peter Nielsen, President and Chief Executive Officer of Bio-Path. "We will now move this program into Phase II while also extending the Phase I portion to continue testing higher doses since we have not yet reached a maximum tolerated dose."

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 and in preclinical studies for

triple negative and inflammatory breast 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.

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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Contact Information:

Peter Nielsen
President & Chief Executive Officer
Tel 832.742.1357

Rhonda Chiger (investors)
Rx Communications Group, LLC
917.322.2569
rchiger@rxir.com