BIO-PATH HOLDINGS REPORTS THIRD QUARTER 2023 FINANCIAL RESULTS

Conference Call to be Held Today at 8:30 A.M. ET

HOUSTON—November 15, 2023 – Bio-Path Holdings, Inc., (NASDAQ:BPTH), a biotechnology company leveraging its proprietary DNAbilize® liposomal delivery and antisense technology to develop a portfolio of targeted nucleic acid cancer drugs, today announced its financial results for the third quarter ended September 30, 2023 and provided an update on recent corporate developments.

"The third quarter marked a particularly progressive time at Bio-Path as we reported compelling clinical data from our Phase 2 trial of prexigebersen in acute myeloid leukemia (AML)," said Peter Nielsen, President and Chief Executive Officer of Bio-Path Holdings. "In October, we hosted a Key Opinion Leader (KOL) event with two physician experts who expressed their enthusiasm for the potential of prexigebersen to change the treatment landscape and patient outcomes in this most challenging patient population."

"As we look toward the balance of the year and into 2024, we are more encouraged than ever for the potential of our DNAbilize® platform to positively impact a number of difficult to treat cancer indications," continued Mr. Nielsen.

Recent Corporate Highlights

- **Announced Positive Results from Interim Analysis of Phase 2 Clinical Trial of Prexigebersen in Acute Myeloid Leukemia.** In August, Bio-Path reported positive interim data from Stage 2 of the Company's Phase 2 study of prexigebersen in combination with decitabine and venetoclax for the treatment of acute myeloid leukemia (AML). Prexigebersen continues to be well-tolerated and has now shown compelling efficacy results in two reporting cohorts including evaluable newly diagnosed AML patients and evaluable refractory/relapsed AML patients, which exceed outcomes with combination treatment of decitabine and venetoclax.

- **Hosted Key Opinion Leader Event to Discuss Prexigebersen and Advances in the AML Treatment Landscape.** In October, Bio-Path hosted a virtual KOL event to discuss the current AML treatment landscape and the growing body of clinical evidence in support of prexigebersen as a treatment for AML. The event featured presentations from Jorge Cortes, M.D., Director, Georgia Cancer Center, Augusta University and Maro Ohanian, D.O., Department of Leukemia, Division of Cancer Medicine, MD Anderson Cancer Center.

Financial Results for the Third Quarter Ended September 30, 2023

- The Company reported a net loss of $3.2 million, or $0.32 per share, for the three months ended September 30, 2023, compared to a net loss of $3.5 million, or $0.49 per share, for the three months ended September 30, 2022.

- Research and development expense for the three months ended September 30, 2023 decreased to $2.3 million, compared to $2.4 million for the three months ended September 30, 2022, primarily due to decreased manufacturing development expenses partially offset by an increase in expense related to our clinical trial for prexigebersen in AML due to increased patient enrollment in 2023.

- General and administrative expense for the three months ended September 30, 2023 decreased to $1.0 million, compared to $1.2 million for the three months ended September 30, 2022, primarily due to decreased legal fees.

- Change in fair value of the Company's warrant liability for the three months ended September 30, 2023 resulted in non-cash income of $0.1 million. The Company did not have the warrant liability in the comparable period for 2022.

- As of September 30, 2023, the Company had cash of $2.4 million**,** compared to $10.4 million as of December 31, 2022. Net cash used in operating activities for the nine months ended September 30, 2023 was $9.7 million, compared to $10.1 million for the comparable period in 2022. Net cash provided by financing activities for the nine months ended September 30, 2023 was $1.7 million.

Conference Call and Webcast Information

Bio-Path Holdings will host a conference call and webcast today at 8:30 a.m. ET to review these third quarter 2023 financial results and to provide a general update on the Company. To access the conference call please dial (833) 630-1956 (domestic) or (412) 317-1837 (international). A live audio webcast of the call and the archived webcast will be available in the Media section of the Company's website at www.biopathholdings.com.

About Bio-Path Holdings, Inc.

Bio-Path is a biotechnology company developing DNAbilize®, a novel technology that has yielded a pipeline of RNAi nanoparticle drugs that can be administered with a simple intravenous transfusion. Bio-Path's lead product candidate, prexigebersen (BP1001, targeting the Grb2 protein), is in a Phase 2 study for blood cancers, and BP1001-A, a drug product modification of prexigebersen, is in a Phase 1/1b study for solid tumors. The Company's second product, BP1002, which targets the Bcl-2 protein, is being evaluated for the treatment of blood cancers and solid tumors, including lymphoma and acute myeloid leukemia. In addition, an IND application is

expected to be filed for BP1003, a novel liposome-incorporated STAT3 antisense oligodeoxynucleotide developed by Bio-Path as a specific inhibitor of STAT3.

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

Forward-Looking Statements

This press release contains forward-looking statements that are made pursuant to the safe harbor provisions of the federal securities laws. These statements are based on management's current expectations and accordingly are subject to uncertainty and changes in circumstances. Any express or implied statements contained in this press release that are not statements of historical fact may be deemed to be forward-looking statements. 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, 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, the maintenance of intellectual property rights, that patents relating to existing or future patent applications will be issued or that any issued patents will provide meaningful protection of our drug candidates, the impact, risks and uncertainties related to global pandemics, including the COVID-19 pandemic, and actions taken by governmental authorities or others in connection therewith, and such other risks which are identified in Bio-Path's most recent Annual Report on Form 10-K, in any subsequent quarterly reports on Form 10-Q and in other reports that Bio-Path files with the Securities and Exchange Commission from time to time. 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.

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