Q123 RESEARCH UPDATE

BIO-PATH HOLDINGS, INC. (NASDAQ: BPTH)

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MARKET STATISTICS

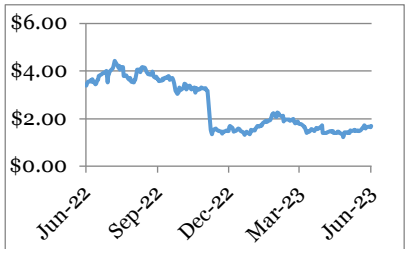
Price	$1.69
52-Week Range	$1.18 - $4.48
Daily Vol. (3 Month Avg.)	0.03M
Market Cap ($M)	$13.5
Enterprise Value ($M)	$6.7
Shares Outstanding (M)	7.96
Float (%)	99.6%
Insider Ownership	0.4%
Institutional Ownership	7.2%

FINANCIAL SUMMARY

CONDENSED BALANCE SHEET

($mm, except per share data)

Balance Sheet Date:	3/31/23
Cash & Cash Equivalent:	$6.7
Cash/Share:	$0.85
Equity (Book Value):	$9.1
Equity/Share:	$1.14



CONDENSED INCOME STMTS.

($mm, except per share data)

FY-12/31	Rev	Net Income	Adj. EBITDA	EPS
Fy20	$0.00	($10.88)	($10.2)	($2.83)
Fy21	$0.00	($10.44)	($9.46)	($1.55)
Fy22	$0.00	($13.87)	($12.87)	($1.91)
Fy23E	$0.00	($13.00)	($11.80)	($1.49)

COMPANY DESCRIPTION

Bio-Path has developed DNAbilize®, a novel technology that has yielded a pipeline of RNAi nanoparticle drugs that can be administered via intravenous transfusion. Bio-Path's lead candidate, prexigebersen (BP1001 targeting the Grb2 protein) is in Phase 2 studies for blood cancers. BP1001-A has begun Phase 1 studies in solid tumors. BP1002, which targets the Bcl-2 protein, is being evaluated for the treatment of blood cancers and solid tumors. An IND should be filed soon for BP1003, developed as a specific STAT3 inhibitor.

Awaiting Topline Results in Several Key Cohorts

Ongoing Clinical Trials: The Company has various product candidates in different stages of development and is currently expecting near-term topline results in key cohorts of its Phase 1/1b study of BP1001-A in solid tumors, its Phase 1/1b study of BP1002 in relapsed/refractory AML, as well as its Phase 2 study of prexigebersen in AML.

Prexigebersen - Bio-Path has completed Phase 1 clinical trials for its lead candidate prexigebersen for acute myeloid leukemia (AML) and other blood cancers and is in the midst of a Phase 2 clinical trial for AML.

BP1001-A – BP1001-A (prexigebersen with enhanced nanoparticle properties) has begun Phase 1 trials for the treatment of solid tumors.

BP1002 – Bio-Path is conducting two clinical trials for BP1002. A Phase 1 clinical trial of BP1002 in patients with advanced lymphoid malignancies is ongoing. Also, a Phase 1 is underway for patients with refractory/relapsed AML, including those who have relapsed from venetoclax-based treatment.

BP1003 - BP1003 is in pre-clinical development in a pancreatic patient-derived tumor model. In previous preclinical trials, it has been successful at penetrating pancreatic tumors.

Owning the Breakthrough Technology: Bio-Path has developed a proprietary antisense and liposome delivery technology for DNA drugs, DNAbilize®, potentially solving the challenges of delivering these molecules directly to target cells without side effects. DNAbilize® is Bio-Path's novel and patented method for producing antisense DNA therapeutics for a broad spectrum of indications, including cancer. This technology overcomes certain drawbacks and challenges of the more traditional methods.

Strategic Relationships: The original technology platform was licensed from The MD Anderson Cancer Center; BPTH maintains strong relationship with the Cancer Center as well numerous leading cancer centers across the US, with several hosting clinical trials.

Strong IP Position: Bio-path has a strong IP position with composition of matter and method patents for antisense targets and manufacturing which helps ensure technology preservation and offers protection against competitors.

Cash Runway: The Company reported $6.7M as cash on hand as of 3/31/22, and management has stated that additional funds will be needed to continue operations according to plan for the upcoming 12 months.

Valuation: Using comparable companies' EV/R&D multiple - we gauge that Bio-Path is significantly undervalued next to its peers with numerous drug candidates in the pipeline and its lead drug candidate is quickly approaching milestone indication that could indicate potential for approval. See page 12 for further details.

Business Overview

Bio-Path was founded based on antisense and neutral lipid technology licensed from The University of Texas M.D. Anderson Cancer Center. The Company maintains an exclusive license agreement. Bio-Path has subsequently developed its own neutral lipid nanoparticle RNAi technology that is patented and is the basis for development of its DNAbilize® technology platform. Bio-Path plans to develop therapeutics using this proprietary platform, both independently and by partnering with others, to address a broad range of diseases. BPTH is headquartered in Bellaire, Texas, and has 10 employees.

With DNAbilize® as the drug development and manufacturing platform, Bio-Path is focusing on four drug candidates that address multiple disease indications, including several types of cancers, with an initial focus on hematological malignancies.

Technology

Simply put, DNAbilize® is based on blocking the expression of proteins that cause disease (RNA interference, or RNAi). Bio-Path's novel and patented technology enables the development and the delivery of systemic antisense DNA treatments for multiple types of cancers, including solid tumors and hematological cancers, as well as other types of diseases.

Exhibit 1: How DNAbilize Works

Source: Company Reports

DNA has two strands—the sense strand and the antisense strand. The antisense strand, which is also known as the template strand, is the DNA that carries the genetic information necessary to make proteins because it is the template for messenger RNA (mRNA) synthesis. The synthesis of RNA from DNA is called transcription (the DNA is transcribed into RNA). Outside the cell nucleus, the mRNA sequence is next translated into a protein. Bio-Path's DNAbilize® technology works by delivering short strands of antisense DNA (antisense oligonucleotides) into the cell which correspond to the target mRNA and hybridize, blocking protein synthesis. DNAbilize® technology is an RNA-modulating therapeutic that disrupts the expression of proteins that are responsible for the disease.

- **No toxicity -** Unlike many traditional therapies, DNAbilize® does not introduce a toxic agent into the body to kill the cells. The P-ethoxy DNA does not induce hepatotoxicity or thrombocytopenia, but simply blocks protein production.

- **Higher cellular uptake -** Neutral lipids form structures that are similar to cell membranes, enabling a more efficient delivery in higher doses to the diseased cells through the blood and lymphatic system, as compared with other lipid delivery technologies with dose limiting toxicities.
- **Systemic treatment –** The technology provides systemic distribution of nucleic acid drugs throughout the body with a simple intravenous transfusion.
- **Microscopic-sized liposomes enable penetration into tumors for delivery of drug -** Testing in animals has shown a 10- to 30-fold increase in tumor cell penetration compared to other methods of drug delivery.
- **Proven target inhibition**- DNAbilize® is a sequence-specific drug, targeting the protein that is causing the disease. It inhibits only the target protein, and no off-target effects have been observed.

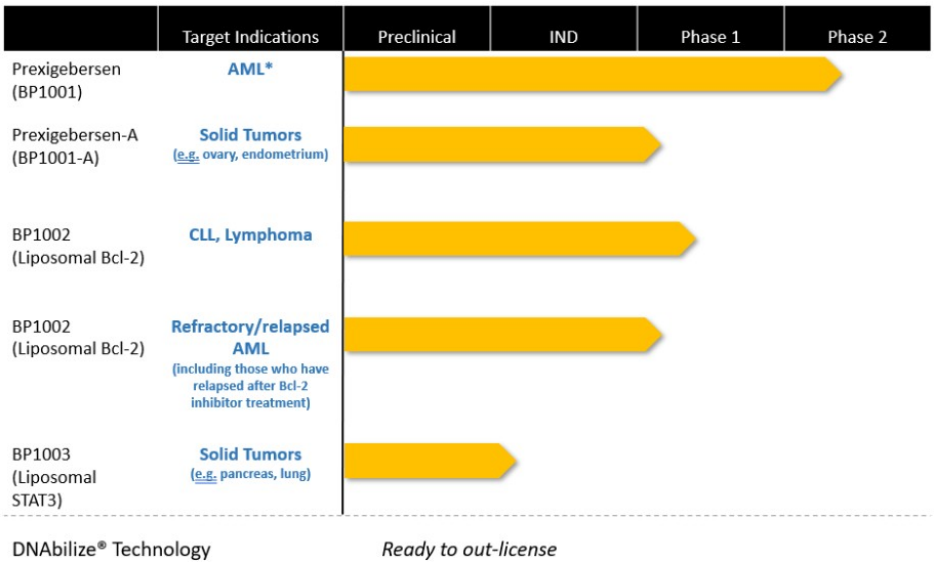
With the rise of "personalized therapy" as an important topic of research over the last several years, multiple companies have performed clinical trials using antisense oligonucleotides (AONS) as RNA-modulating therapeutics. The results have been disappointing, primarily due to toxicity induced by either the DNA backbone or the lipid delivery. These therapies have historically used positively charged lipids to form complexes between lipids and the targeted molecules. Due to their instability in plasma and hepatic clearance, these approaches have been dose limiting. While many companies have focused on overcoming the limitations posed by DNA instability or lipid delivery, Bio-Path's DNAbilize® drug delivery and antisense technology successfully overcomes the limitations of AONS therapies by combining a neutral charge P-ethoxy DNA backbone. This combination enables the delivery of high doses of drugs, while minimizing toxicity. DNAbilize® could prove to be the first antisense therapeutic to effectively treat hematological and systemic diseases relating to the blood and lymph systems.

As most recently reported, BPTH has five US-issued patents and eight foreign related to its DNAbilize® platform including its use in the treatment of cancers, autoimmune diseases and infectious diseases; there are five pending US patents as well as one additional allowed patent application in a foreign jurisdiction. Also, the Company has 60+ pending patent applications in key foreign jurisdictions.

Clinical Pipeline

Bio-Path has several product candidates in various stages of development that target multiple indications. The following exhibit highlights several of the drug candidates in the pipeline.

Exhibit 2: Product Candidates in Development



*Orphan drug designation from the USFDA and EMA for AML

Source: Company Reports

BP1001 - Phase 1 Clinical Trial - Prexigebersen for AML and MDS - This Phase 1 trial, which was conducted at M.D. Anderson Cancer Center, was designed to determine the safety and tolerance of escalating doses of prexigebersen in AML and myelodysplastic syndrome (MDS) patients who were refractory or resistant to current therapies, having failed an average of 6 prior therapies. The original IND outlined for a maximum dose of 50 mg/m2, but because there had been no evidence of significant toxicity, in November 2012, the FDA permitted a change in protocol allowing for higher doses. In October 2014, three patients were then treated with 90 mg/m2, with no evidence of significant toxicity.

Summary of results:

- Data demonstrated that Bio-Path's technology successfully delivered the antisense drug substance to the cell and across the cell membrane into the interior of the cell, where expression of the target protein (Grb2) was blocked
- Of the 18 evaluable patients with circulating blasts, 83% showed decreased circulating blasts/ anti-leukemic activity
- 63% of evaluable patients showed greater than 50% reduction of circulating blasts
- The drug was well tolerated, with no dose limiting toxicities observed

As shown in Exhibit 3, the Grb2 levels decreased in 11 of 13 patient samples by the end of treatment. Inhibition of the disease-causing protein has the effect of down regulating the disease; phosphorylated (pErk), a protein downstream of the Ras protein, was decreased in 58% of the samples. This enables prexigebersen to be used in combination with current frontline therapies, and also as a potential standalone treatment. These results marked a milestone for antisense therapies, with development efforts that have been hindered by safety concerns and problems with delivery into the interior of the cell.

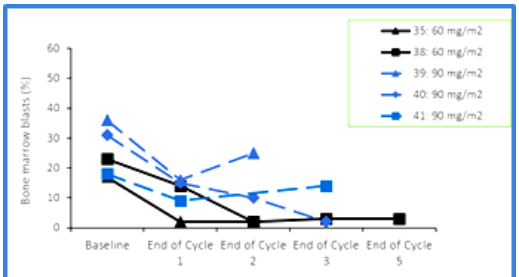
Exhibit 3: Decrease in Disease-causing Proteins

Subject Number	Cohort	BP1001 dose (mg/m^2)	Grb2 Decrease (Day 15)	pErk Decrease (Day 15)	Grb2 Decrease (EOT)	pErk Decrease (EOT)
022	3	20	0%	0%	57%	0%
023	3	20	0%	3%	28%	45%
024	3	20	56%	28%	47%	35%
025	4	40	63%	82%	54%	91%
026	4	40	47%	0%	0%	0%
027	4	40	NS[1]	NS[1]	34%	27%
028	5	60	0%	0%	30%	54%
029	5	60	57%	51%	65%[2]	0%[2]
030	5	60	54%	55%	43%	47%
031	6	90	0%	0%	0%	0%
032	6	90	85%	54%	91%	63%
033	6	90	13%	13%	53%	2%
034	6	90	42%	42%	40%	0%

Source: Company Reports

Phase 1b/2 Clinical Trial – Safety Trial of Prexigebersen in Combination with Low-dose Cytarabine Treating AML - The Company completed the safety segment of the Phase 2 clinical trials, which demonstrated anti-leukemic activity with no adverse events and no negative synergies using prexigebersen with LDAC (low-dose cytarabine).

Exhibit 4: Five of Six Patients Achieved Remission



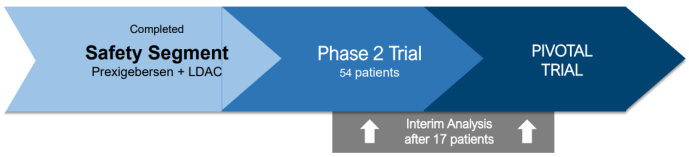
Patient	BP1001 (mg/m²)	BM Blasts % Reduction	Cycles completed	Response
35	60	88	1	CR
37	60	0	1	PD
38	60	91	5	CR
39	90	56	3	PR
40	90	68	3	CR
41	90	50	3	PR

Source: Company Reports

There were two cohorts, with three patients in each cohort, one group receiving 60 mg/m^2 and one group receiving 90 mg/m^2. As illustrated in Exhibit 4, of the six evaluable patients from the trial, three patients achieved complete remission and two patients achieved partial remission. This corroborates the decrease of Grb2 protein and the positive effect on bone marrow blasts observed in the Phase 1 trial.

Phase 2 Clinical Trial - Efficacy Trial of Prexigebersen Combined with Low-dose Cytarabine for Treating AML - The Phase 2 efficacy trial of prexigebersen in combination with low-dose cytarabine for the treatment of AML has been taking place in 10 leading cancer centers throughout the U.S., with additional trial sites to be opened in the EU, in order to accelerate enrollment. The trial compares safety profile, pharmacokinetics, pharmacodynamics, and efficacy of 60 mg/m^2 of prexigebersen combined with LDAC vs. the response rates documented for LDAC alone. The study involves newly diagnosed, previously untreated *de novo* patients, who are not eligible for, or who have opted to forego, high-intensity chemotherapy or have elected to have a low intensity regimen. As of August 2019, Bio-Path amended the Phase 2 trial to include patients with high-risk myelodysplastic syndrome (MDS) and refractory/relapsed AML patients.

Exhibit 5: Initial Phase 2 Efficacy Trial Design for AML Prexigebersen Combo Therapy



Source: Company Reports

The primary endpoint is complete remission, including patients achieving incomplete hematologic recovery and complete remission with incomplete platelet recovery. Secondary endpoints assess aspects relating to safety and efficacy of prexigebersen. The first patient was dosed in November 2016. The trial design includes approximately 54 previously untreated AML patients.

Pre-specified interim results were reported April 3, 2018, which included the following:

- Of the 17 evaluable patients (17 instead of original 19 since criteria had been met), 4 achieved complete responses, 1 achieved a leukemia free, 1 had significantly reduced bone marrow blasts, and 3 achieved stable disease
- In total, 47% of the evaluable patients showed some form of response, including 4 with complete remission, or 23%, and 4 with stable disease; these significant results were selected for posted presentation at the ASH annual meeting in December 2018

Based on recommendations from the principal investigators conducting the study, Bio-Path amended the protocol to change the dosing schedule to that used in the Phase 1b study in relapsed and refractory AML patients (larger dose of prexigebersen was administered prior to LDAC treatment starting day 10 vs. LDAC treatment starting day 4). Also, per investigators' recommendations, BPTH has begun a Stage 2 decitabine cohort as part of this trial based on recently released data on this compound for *de novo* AML patients.

In March 2019, a clinical update to the previously reported interim Phase 2 data was released by the Company and highlighted the following:

- Following updated data from the 17 evaluable patients as well as a meeting with principal investigators, BPTH noted that the efficacy profile had increased to 65% with 11 of the 17 patients having a response
- This includes 5, or 29%, of patients achieving complete response (including one with complete response with incomplete hematologic recovery) and 1 morphologic leukemia free state
- Six showed stable disease responses, including two patients with greater than 50% reduction in bone marrow blasts
- It was observed that 82% of these patients were secondary AML patients, which is recognized as an extremely difficult group to treat

The above results are even more impressive when compared to the historical 7 – 13% varying complete response rates noted when treating this patient population with LDAC alone. Furthermore, we note that for the newly approved venetoclax plus LDAC treatment regime, patients reported a 42% complete response rate and complete response with incomplete hematologic response, but that study had only 46% secondary AML patients involved vs. Bio-Path's 82%. The Company sees these results, specifically as they relate to venetoclax, creating the opportunity for combining prexigebersen with the combination of venetoclax plus decitabine for the treatment of *de novo* AML patients.

Thus, BPTH has released a **new registration-directed clinical development plan** that includes the following steps:

- Cancel the Phase 2 prexigebersen + LDAC cohort for AML *de novo* patients given the more recent preference by oncologists towards decitabine
- Add a cohort of prexigebersen + decitabine in refractory/relapsed AML patients; additionally, efficacy studies for prexigebersen + decitabine + venetoclax confirm incremental efficacy benefit of the triple combination in a small safety assessment
- Following a successful safety assessment, initiate the triple combination cohort for the treatment of refractory/relapsed AML
- Amend the protocol of the Phase 2 for untreated AML to initiate a triple combination trial registration-directed trial (prexigebersen + decitabine + venetoclax) to determine if more durable responses and longer survival is observed as compared to using the decitabine and venetoclax combination alone.

And one expectation from these changes to the Phase 2 protocol is that several of the venetoclax patients will relapse, and subsequently BP1002 can be introduced, replacing venetoclax, and enabling continued patient treatment with the new triple combination.

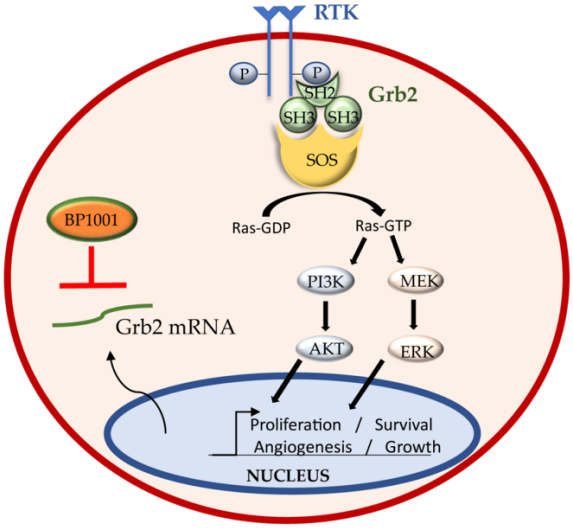
BPTH announced August 2019 that patient dosing had begun in the amended Phase 2 trial. In November 2019, BPTH disclosed that safety testing in Stage 2 of the Phase 2 clinical trial for AML and MDS had been completed. This safety segment included 6 evaluable patients treated with the combination of prexigebersen and decitabine and resulted in 50% of the patients having a response, with 33% of these showing complete responses with incomplete hematologic recovery, and 17% showing partial response (complete response rate to decitabine alone is ~20%). With this safety study complete, BPTH has also moved forward with the first six evaluable patients in testing the combination of prexigebersen + decitabine + venetoclax; the Company announced in August 2020, that a patient had been enrolled and dosed (patient is in the relapsed/refractory cohort). On April 5, 2021, Bio-Path reported successful completion of the safety cohort for testing this triple combination and thus will move forward with efficacy testing. Results showed a clean side effect profile and lack of toxicity, which will be especially important when treating *de novo* fragile AML patients with higher sensitivities. The Company also noted that out of the six evaluable patients treated with the triple combination, five responded (83%) to the treatment, including four achieving complete response (67%) and one complete response with incomplete hematologic recovery (17%); these results far exceeded complete response rates for the combination decitabine + venetoclax across comparable treatment categories, and no dose limiting toxicities were noted related to prexigebersen.

The efficacy segment of the trial is being conducted at multiple US clinical sites and will include an interim assessment of 19 evaluable patients in each cohort; interim analysis is expected to commence by cohort in Q2 2023. While 54 evaluable patients will be included in two cohorts testing relapsed/refractory AML patients (using triple combination) as well as those who are venetoclax resistant/intolerant (using prexigebersen + decitabine), a total of 98 evaluable patients will be included in the cohort for previously untreated AML patients (includes triple combination).

Prexigebersen-A for Treatment of Solid Tumors - Bio-Path believes that solid tumors with activated or mutated tyrosine kinases as targets for prexigebersen (referred to as BP1001-A for solid tumors) would have a high degree of success. The Company is investigating this fourth drug candidate BP1001-A for the treatment of solid tumors in advanced ovarian, uterine, triple negative breast, and potentially pancreatic cancers. In preclinical studies, leaders in the field of ovarian and breast cancer at M.D. Anderson are currently assessing BP1001-A in the treatment of solid tumors, and the results from these preclinical studies will be used to evaluate the efficacy of BP1001-A, both as a monotherapy and in combination with front line therapies, in the treatment of solid tumors. Pre-clinical studies supporting the potential of BP1001-A in the treatment of solid tumors in gynecologic malignancies were presented in a poster at the annual meeting of the American Association for Cancer Research in April 2018. Bio-Path filed an IND in late 2019 that was cleared in October 2021. The first patient was dosed in December 2022, and the Company continues enrollment at several leading cancer centers for this Phase 1 clinical trial; completion of the first dose escalation cohort is expected in coming months.

The Phase 1/1b clinical trial initially will include 6 evaluable patients being treated with prexigebersen-A monotherapy in a standard 3+3 design, which starts with a dose of 60 mg/m^2. The approved treatment cycle is two doses per week over 4 weeks, resulting in 8 doses administered over 28 days. The Phase 1b portion of the study will commence after successful completion of prexigebersen-A monotherapy cohorts and will assess the safety and efficacy of prexigebersen-A combination therapy with the appropriate frontline treatment.

Exhibit 6: BP1001-A Inhibits Tumor Progression at Grb2 Protein Level



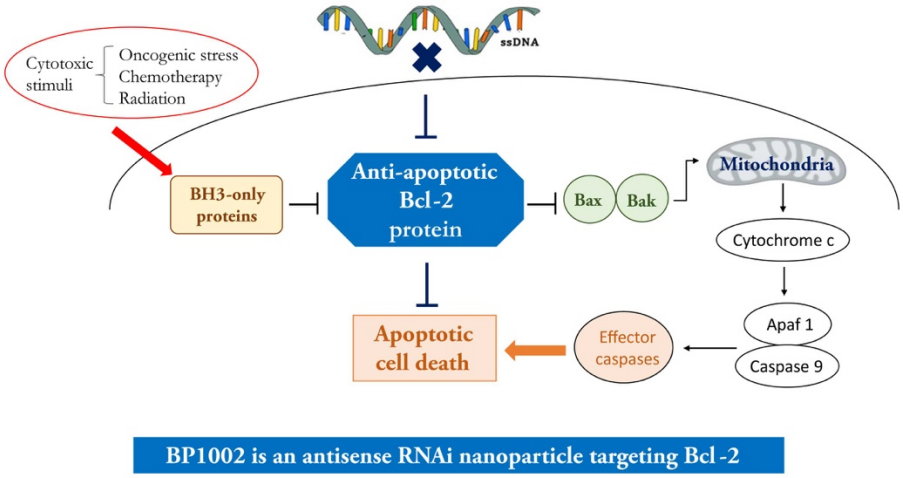
Source: Company Reports

BP1002 – Liposomal Bcl-2 Antisense - BP1002 is a neutral-charge, liposome-incorporated antisense drug designed to inhibit protein synthesis of Bcl-2, a protein that promotes the survival of cells and inhibits apoptosis. The Company previously announced the results of preclinical in-vitro and in-vivo studies supporting BP1002 as a potential treatment in aggressive non-Hodgkin's lymphoma (NHL). In two animal studies, none of the control group mice survived beyond 39 days. In the BP1002 arm of the study, a combined 87% of the mice survived until the end of the 5-week study. In 2018, Bio-Path completed one additional safety study per FDA request in preparation for a broad Phase 1 clinical trial of BP1002 in patients with lymphoma and CLL.

BPTH's IND application was reviewed and cleared by the FDA, and a patient in the Phase 1 trial received the first dosage in November 2020. The Phase 1 clinical trial initially includes 6 evaluable patients at several leading cancer centers across the U.S. being treated with BP1002 monotherapy in a standard 3+3 design, which starts with a dose of 20 mg/m^2. Per recent disclosures, the approved treatment cycle is two doses per week over 4 weeks, resulting in 8 doses administered over 28 days. Completion of the current patient cohort is expected in 2023.

Additionally, with the approval of frontline therapy venetoclax (approved for AML and CLL) and most recently updated interim data, BPTH filed an additional IND for registration of BP1002 for the treatment of refractory/relapsed AML, which was reviewed and cleared by the FDA in August 2021. The Company will have the benefit of the experience from the modified Phase 2 AML clinical program now including venetoclax as well. Venetoclax works against the anti-apoptotic protein Bcl-2 by neutralizing the protein's BH3 domain, but some patients relapse due to BH3 domain mutation over time. BP1002's activity is based on blocking the Bcl-2 messenger RNA and does not target the BH3 domain; hence, it would likely be able to treat these patients who have relapsed on venetoclax treatment. The trial design of the Phase 1/1b is the same as that of the previously approved IND for BP1002 described above, and it was announced in October 2022 that the first patient had been enrolled and dosed in the Phase 1 portion of this study for BP1002, with an initial cohort completion and readout expected mid-year 2023. The Phase 1b portion of the study will commence after completion of the monotherapy cohorts to assess the safety and efficacy of BP1002 in combination with decitabine in refractory/relapsed AML patients.

Exhibit 7: BP1002 Inhibits Protein Synthesis of Bcl-2

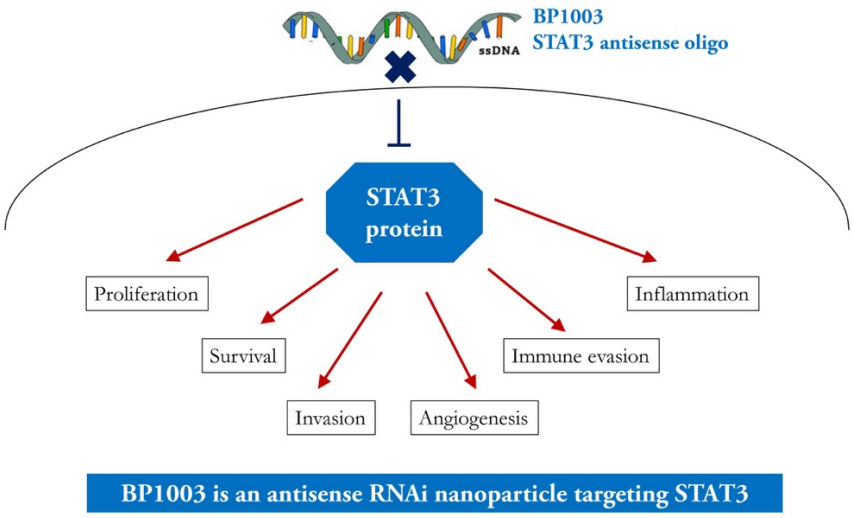


Source: Company Reports

BP1003 – BP1003 targets inhibition of the STAT3 (Signal Transducer and Activator of Transcription 3) protein, and it is currently in preclinical development in a pancreatic patient-derived tumor model. In previous preclinical work, models have shown BP1003 successful at penetrating pancreatic tumors and notably enhancing the efficacy of standard frontline treatments. STAT3 is recognized as a critical mediator of tumor immune evasion and is found in many types of cancer, including NSCLC, AML and PDAC. Activation of STAT3 typically correlates with poor clinical outcomes, high grade disease and metastasis, and has been linked with resistance to chemotherapy.

BPTH intends to pursue IND-enabling studies of BP1003 and file in 2H 2023, with a goal to enter first-in-human trials shortly thereafter. Additionally, the Company has the advantage of world-leading gastrointestinal cancer expert Dr. Jason Fleming being part of its Scientific Advisory Board.

Exhibit 8: BP1003 Targets Inhibition of the STAT3



Source: Company Reports

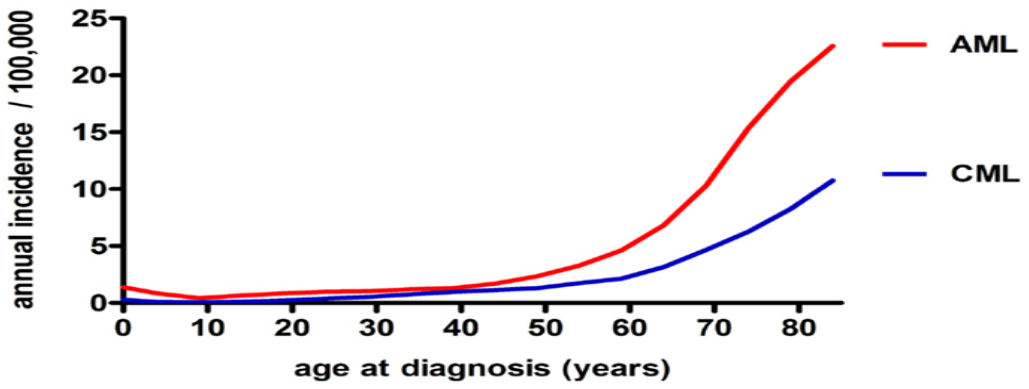
Market Opportunity

Bio-Path's initial targets are myeloid neoplasms, a subset of hematologic malignancies such as acute myeloid leukemia and chronic myeloid leukemia, which are defined according to the percentage of immature blasts in the bone marrow. AML is characterized by the rapid accumulation of immature myeloid cells in the blood, resulting in a drop of the other cell types, such as red blood cells and platelets, and it is the most common acute leukemia in adults. It is estimated by the National Cancer Institute that approximately 20,000 new AML cases occur each year.

The incidence of both AML and CML dramatically increases with age (Exhibit 9), and most patients are 60 or older. Particularly in the elderly, who often cannot tolerate aggressive therapies, there remains a dire unmet need for an effective, non-toxic therapy.

Although there have been a few specialized drug approvals, AML treatment has generally remained unimproved in the last 20 years and consists of induction cytotoxic chemotherapy. Even with these highly toxic chemotherapies, less than 30% of AML patients survive long-term, with the cure rate for older adults being between 5 to 15%. Thus, the prognosis for patients over 65 is dismal. Treatment failure often occurs due to therapy-related complications, such as infections and toxicity, and there is a high disease relapse rate after a first remission in AML therapy. For those that cannot receive a standard course of chemotherapy, the average survival rate is 5 – 10 months.

Exhibit 9: Annual Incidence of AML and CML in U.S. by Age



Source: Company Reports

Financial Overview

Research and Development Expense. Their research and development expense for the quarter ended March 31, 2023, was $4.0 million, an increase of $2.1 million compared to the quarter ended March 31, 2022. The increase in research and development expense was primarily due to manufacturing expenses related to drug product releases in Q1 2023.

Exhibit 10: R&D Expenditure Breakup

	Three Months Ended March 31,	
	2023	2022
Research and development expense	$ 3,940	$ 2,051
Non-cash stock-based compensation expense	49	47
Total research and development expense	$ 3,989	$ 2,098

Source: Company Reports

General and Administrative Expense. The Company reported general and administrative expense for the quarter ended March 31, 2023, of $1.3 million, the same amount reported for the quarter ended March 31, 2022.

Exhibit 11: G&A Expenditure Breakup

	Three Months Ended March 31,	
	2023	2022
General and administrative expense	$ 1,146	$ 1,091
Non-cash stock-based compensation expense	157	170
Total general and administrative expense	$ 1,303	$ 1,261

Source: Company Reports

Net Loss. Net loss from operations for the quarter ended March 31, 2021, was $5.3 million, or $0.66 per share, as compared to a net loss of $3.4 million, or $0.47 per share, for the year ended March 31, 2022. We again note that a significant part of the increased net loss Q1 2023 over Q1 2022 was due to higher than expected R&D expense related to increased supply of drug candidate being released in following supply chain issues caused principally by the COVID-19 epidemic.

VALUATION SUMMARY

EV/R&D Approach: Using comparable companies' EV/R&D multiple - we believe that Bio-Path is significantly undervalued to its peers with numerous drug candidates in the pipeline and its lead drug candidate is quickly approaching approval.

Applying an EV/R&D of 4x to 8x, with a midpoint of 6x, results in a price range of $3.68 to $7.36, with a midpoint of $5.52.

Name	Ticker	Price	Sh	Mrkt Cap	EV	Revenue Est. Current FY	R&D Est. Current FY	EV/Rev	EV/R&D
BeyondSpring, Inc.	BYSI	$ 1.08	39.0	$ 42.1	$ 10.4	$ 0.2	$ 28.2	69.3x	0.4x
Compass Therapeutics, Inc.	CMPX	$ 2.96	126.4	$ 374.1	$ 194.0	n/a	$ 30.0	n/a	6.5x
CTI BioPharma Corp.	CTIC	$ 9.05	131.9	$ 1,193.7	$ 1,252.7	$ 119.6	$ 36.9	10.5x	33.9x
Cumberland Pharmaceuticals, Inc.	CPIX	$ 1.65	14.4	$ 23.8	$ 27.3	n/a	$ 6.7	n/a	4.1x
Curis, Inc.	CRIS	$ 0.82	96.6	$ 79.2	$ 7.0	$ 10.5	$ 43.3	0.7x	0.2x
CytoDyn, Inc.	CYDY	$ 0.27	915.1	$ 247.1	$ 270.8	n/a	$ 8.3	n/a	32.7x
First Wave BioPharma, Inc.	FWBI	$ 1.94	1.8	$ 3.5	$ 2.0	n/a	$ 0.7	n/a	2.9x
Magenta Therapeutics, Inc.	MGTA	$ 0.68	60.4	$ 41.1	$ (39.1)	n/a	$ 55.1	n/m	n/m
Nuvectis Pharma, Inc.	NVCT	$ 17.54	16.0	$ 280.8	$ 264.7	n/a	$ 12.0	n/a	22.0x
Paratek Pharmaceuticals, Inc.	PRTK	$ 1.86	57.3	$ 106.6	$ 302.2	$ 154.8	$ 36.3	2.0x	8.3x
Sonnet BioTherapeutics Holdings, Inc.	SONN	$ 0.49	27.5	$ 13.5	$ 2.9	$ 0.2	$ 0.4	19.3x	6.6x
Bio-Path Holdings, Inc.	**BPTH**	**$ 1.69**	**8.0**	**$ 13.5**	**$ 6.7**	**n/a**	**$ 8.0**	**n/a**	**0.8x**
	Average			**$ 218.7**	**$ 208.6**			**20.4x**	**11.8x**
	Median			**$ 79.2**	**$ 27.3**			**10.5x**	**6.5x**

Desired Multiple	4.0x	6.0x	8.0x
FY23 R&D Est.	$8,000	$8,000	$8,000
EV	$32,000	$48,000	$64,000
Net Debt	$0	$0	$0
Equity Value	$32,000	$48,000	$64,000
No. of Shares FY23	8,700	8,700	8,700
Equity Value	**$3.68**	**$5.52**	**$7.36**

BALANCE SHEET

Bio-Path Holdings, Inc. (NasdaqCM: BPTH)
Consolidated Balance Sheets ($000s)
Fiscal Year: December

ASSETS	FY2019	FY2020	FY2021	FY2022	Q12023
Assets					
Cash and Cash Equivalents	20,426	13,755	23,774	10,384	6,731
Prepaid Drug Product	776	1,273	523	3,587	2,396
Other Current Assets	788	928	1,843	1,644	1,664
Total Current Assets	21,990	15,956	26,140	15,615	10,791
Fixed Assets					
Property and Equipment, net	303	231	225	158	136
Right of Use operating asset	367	288	203	198	175
Total Assets	**$ 22,660**	**$ 16,475**	**$ 26,568**	**$ 15,971**	**$ 11,102**
LIABILITIES AND SHAREHOLDERS' EQUITY					
Current Liabilities					
Accounts Payable	486	100	106	667	827
Accrued Expenses	673	975	770	909	973
Current Portion of lease liabilities	85	94	82	108	110
Total Current Liabilities	**1,244**	**1,169**	**958**	**1,684**	1,910
Long Term Liabilities					
Non Current lease liabilities	330	236	153	113	85
Total Long Term Liabilities	**330**	**236**	**153**	**113**	**85**
Shareholders' Equity					
Preferred Stock Convertible	-	-	-	-	-
Common Stock - Par Value	4	5	7	8	8
Additional Paid-in Capital	77,421	82,286	103,111	105,695	105,901
Accumulated Deficit	(56,339)	(67,221)	(77,661)	(91,529)	(96,802)
Stockholders Equity	**21,086**	**15,070**	**25,457**	**14,174**	**9,107**
Minority Interest	-	-	-	-	
Total Stockholders Equity	**21,086**	**15,070**	**25,457**	**14,174**	**9,107**
Total Liabilities and Shareholders' Equity	**$ 22,660**	**$ 16,475**	**$ 26,568**	**$ 15,971**	**$ 11,102**
Liquidity					
Current Ratio	17.7x	13.6x	27.3x	9.3x	5.6x
Quick Ratio	17.7x	13.6x	27.3x	9.3x	5.6x
Working Capital	$ 20,746	$ 14,787	$ 25,182	$ 13,931	$ 8,881
Leverage					
Net Debt to Equity	n/a	n/a	n/a	n/a	n/a
Net Debt to Capital	n/a	n/a	n/a	n/a	n/a

Source: Company Reports, Stonegate Capital Partners

INCOME STATEMENT

Bio-Path Holdings, Inc. (NasdaqCM: BPTH)
Consolidated Statements of Income (in thousands $, except per share amounts)
Fiscal Year: December

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023 E
Revenues					
Product revenues	$ -	$ -	$ -	$ -	$ -
Total product revenues	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Cost of revenues					
Cost of product revenues	-	-	-	-	-
Total cost of revenues	-	-	-	-	-
Gross (loss) profit	**-**	**-**	**-**	**-**	**-**
Operating expenses					
General and administrative	4,108	4,330	4,533	4,736	5,000
Research and development	4,585	6,578	5,910	9,165	8,000
Total operating expenses	8,693	10,908	10,443	13,901	13,000
Income (loss) from operations	**(8,693)**	**(10,908)**	**(10,443)**	**(13,901)**	**(13,000)**
Other income / (expense)					
Change in fair value warrant liability	-	-	-	-	-
Loss on extinguishment of warrant liability	-	-	-	-	-
Interest income	94	26	3	33	-
Total other (income) / expense	94	26	3	33	-
Pre-tax income (loss)	**(8,599)**	**(10,882)**	**(10,440)**	**(13,868)**	**(13,000)**
Income taxes (benefit)	-	-	-	-	-
Net income (loss)	**$ (8,599)**	**$ (10,882)**	**$ (10,440)**	**$ (13,868)**	**$ (13,000)**
Deemed dividend related to warrant conversion	**-**	**-**	**-**	**-**	**-**
Net income (loss) attributable to common	**(8,599)**	**(10,882)**	**(10,440)**	**(13,868)**	**(13,000)**
Basic and diluted EPS (loss)	**$ (3.24)**	**$ (2.83)**	**$ (1.55)**	**$ (1.91)**	**$ (1.49)**
Weighted Average Basic and Diluted Shares Outstanding	2,657	3,847	6,725	7,276	8,700
EBITDA	(8,463)	(10,757)	(10,282)	(13,723)	(12,800)
Adjusted EBITDA	(7,779)	(10,180)	(9,461)	(12,872)	(11,800)
Growth Rate Analysis Y/Y					
General and administrative	21.6%	5.4%	4.7%	4.5%	5.6%
Research and development	-12.0%	43.5%	-10.2%	55.1%	-12.7%
Net income (loss)	-0.2%	-26.5%	4.1%	-32.8%	6.3%
EPS	77.5%	12.6%	45.1%	-22.8%	21.6%
EBITDA	-3.7%	-27.1%	4.4%	-33.5%	6.7%
Weighted Average Basic and Diluted Shares Outstanding	345.1%	44.8%	74.8%	8.2%	19.6%

Source: Company Reports, Stonegate Capital Partners estimates

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