



MARKET STATISTICS

Exchange / Symbol	Nasdaq: BSTG
Price:	\$0.82
Market Cap (\$mm):	\$14.0
Enterprise Value (\$mm):	\$8.0
Shares Outstanding:	17.1M
Float:	83%
Volume (3 month avg):	81,100
52 Week Range:	\$0.73-\$3.17
Industry:	Biotechnology

CONDENSED BALANCE SHEET

(\$mm, except per sh data)	
Balance Sheet Date:	9/30/2016
Cash & Cash Equivalent:	\$6.01
Cash/Share (proforma):	\$0.35
Debt:	\$0.00
Equity (Book Value):	\$4.79
Equity/Share (proforma):	\$0.28

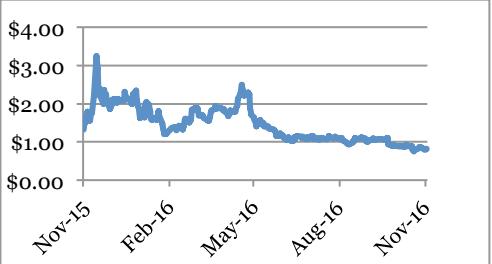
CONDENSED INCOME STATEMENTS

(\$mm, except per sh data)			
FY - 12/31	Revenue	Net Loss	EPS
FY13	\$0.02	(\$8.82)	(\$1.14)
FY14	\$0.09	(\$11.06)	(\$1.41)
FY15	\$0.12	(\$11.70)	(\$1.05)
Fy16E	\$0.08	(\$11.42)	(\$0.71)

LARGEST SHAREHOLDERS

Empery Asset Mgmt, LP	945,600
Intracoastal Capital LLC	830,300
Aspire Capital Partners LLC	650,000
Blackrock, Inc.	608,000
First Pecos LLC	547,000
David Green	538,300
Banco Panamericano, Inc.	490,000
The Vanguard Group, Inc.	350,000
Renaissance Technologies, Corp.	268,600
Tappan Street Partners	265,000

STOCK CHART



COMPANY DESCRIPTION

Biostage, Inc. has developed a proprietary Cellframe™ technology, with three programs in preclinical studies for their ability to promote organ regeneration. Cellframe™ technology uses a synthetic scaffold in combination with a patient's own stem cells taken from a section of biopsied adipose/fat tissue, seeded in a bioreactor, and then placed inside the body to replace a segment of an organ surgically removed; the patient's own cells next signal the stem cell niche to begin regeneration of a biological structure. Presently, Biostage is focusing on implants for hollow organs such as the esophagus, trachea, and bronchi. The Company conducted its advanced preclinical testing for its esophageal implant in collaboration with Mayo Clinic and intends to submit an IND with the FDA for its first indication by the end of Q317. The Company was formerly known as Harvard Apparatus Regenerative Technology, Inc., but changed its name as part of rebranding initiative in March 2016 to Biostage, Inc. Biostage is headquartered in Holliston, MA, and, as last reported, employs 19 people.

SUMMARY

Biostage's Cellframe™ technology brings together cutting-edge science, technology, and functionality in a biocompatible organ implant, and we believe that the Company is well-positioned to succeed for the following reasons, among others:

- The Company has three promising programs in the pipeline -- its Cellspan™ esophageal (including pediatric), bronchial and tracheal implants have the potential to reduce complications as well as costs associated with the current standards of care and improve the quality of patients' lives.
- This regenerative technology utilizes a patient's own cells taken from adipose fatty tissue, as opposed to the more controversial embryonic cells, and are seeded onto Biostage's proprietary biocompatible scaffold design that acts like a frame for organ tissue regrowth; the scaffold may be designed to be incorporated into the body, resorbed by the body, or retrieved via endoscopic or bronchoscopic procedures once regeneration has occurred.
- Biostage's organ implants address life-threatening conditions resulting from cancer, infection, trauma, or congenital abnormalities; its target markets are sizable (revenue opportunity estimated by management in excess of \$1.5 billion) with unmet medical needs.
- In June 2016, the Company filed for an orphan drug designation from the FDA for its esophageal implant in the US (and will subsequently file in Europe) and has a goal of filing an IND with the FDA in Q317, following successful results of extensive animal studies, the most recent of which have been conducted in collaboration with Mayo Clinic. Its HART-Trachea product was successfully granted orphan designation by the FDA in September 2014.
- In addition to focusing resources on medical indications more likely to receive approval in the near-term, Biostage expects to have multiple shots on goal longer-term, also believing that its bioengineered organ implant technology may have applications in broader areas such as gastrointestinal disorders.
- BSTG's patent portfolio addresses the technology and processes utilized to create its products, and as last reported included 3 issued patents as well as 13 patent applications under review, all expiring beyond 2030 with one exception.
- Biostage had approximately \$6.01 million cash on hand as of 9/30/16, which management states is sufficient to fund operations through year-end and into early 2017. Biostage has a simple capital structure with approximately 17.1M shares outstanding, no debt, 3.9M options and 1.6M warrants outstanding.

We anticipate 2017 being an inflection year for Biostage. With promising preclinical data, sizable addressable markets with unmet needs, and a solid financial position, our valuation analysis for the esophageal program alone results in an estimated range of \$3.99-\$5.20/share, with a mid-point of approximately \$4.50. See page 8 for further details.

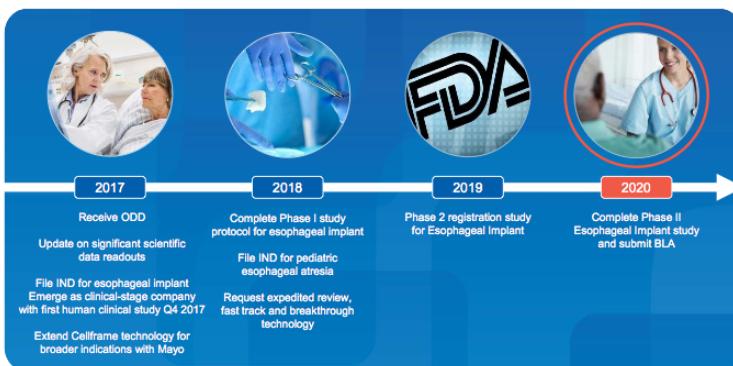
BUSINESS OVERVIEW

Biostage, Inc. is a company looking to invest in the future of regenerative medicine – an area that many researchers see holding great promise for many medical conditions with currently unmet needs. In recent years, the Company has transitioned to its current focus on developing bioengineered organ implants following first a spin-off from Harvard Bioscience in November 2013 and then a more specific rebranding in March 2016.

The Company utilizes its proprietary Cellframe™ technology to create replacement hollow organs for patients, incorporating an individual's own cells. These stem cells are derived from the patient's adipose tissue, or abdominal fat, and are used to seed a biocompatible scaffold, which once further processed in a bioreactor, can be put in the body to replace sections of the esophagus, trachea, and bronchi. Surgeons can use the implants to repair or return improved function to these organs that have been damaged as a result of cancer, infection, trauma, or congenital abnormalities. Organs developed based on the Cellframe™ technology for such indications are referred to by the name Cellspan™.

Initially, the Company is focusing on progressing its Cellspan™ esophageal implant as it has shown the most promising results in small and large animal studies.

Exhibit 1: Biostage's Current Timeline with Esophageal Implant



Source: Company Reports

On a previous-generation tracheal product candidate, the FDA ruled that the implant would be regulated as a combination biologic-device product under jurisdiction of the Center for Biologics Evaluation and Research (CBER), and that it would require a BLA pathway for marketing approval. Biostage believes that its cell-seeded scaffold esophageal implant product will be regulated in the same way. In June 2016, the Company filed for orphan drug designation and is also requesting expedited review in the US from the FDA (plans to file for orphan designation as well as in Europe), which will give its esophageal product candidate a less costly and less time-consuming path towards commercialization. Additionally, the orphan drug designation would grant the Company marketing exclusivity in the US for 7 years following marketing approval, and the same designation in the EU would provide 10 years marketing exclusivity. Going forward, BSTG will also consider strategic partnerships in Japan, which could potentially offer a much larger market for the Company's products than the US.

As most recently reported, the Company's IP portfolio covers the technology and processes utilized to create its products, and includes 3 issued patents as well as 13 patent applications under review (all expiring beyond 2030 with the exception of one related to bioreactor). Biostage also has an exclusive license agreement for its InBreath Bioreactor, the hollow organ bioreactor utilized to prepare the seeded scaffold for implantation.

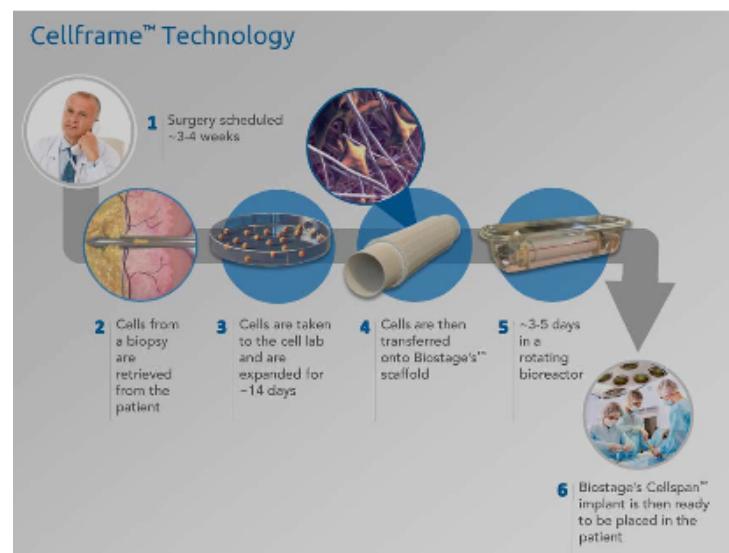
All product candidates are still in the development pipeline and are not approved for sale in any country. Biostage recognizes revenue from the sale of research bioreactor equipment, distributed by Harvard Bioscience, to end users working on organ regeneration research. These revenues are not material, and the sale of the research equipment is not a significant focus for Biostage.

PROPRIETARY TECHNOLOGY

While creating an organ implant is arguably a complex matter, we note that the organ implant created by the Cellframe™ technology has principally two key components:

- A biocompatible synthetic scaffold
- A patient's own stem cells

Exhibit 2: The Cellframe™ Process



Source: Company Reports

As detailed in the diagram above, the Cellframe™ technology at the core of Biostage's product development incorporates a patient's own mesenchymal stem cells derived from fatty tissue taken via a relatively simple biopsy. We note that no embryonic stem cells are used in any of the Company's implants. Following two weeks' time growing in the cell lab (cell processing incorporates many trade secrets as well), the expanded cell population is ready to be seeded on the scaffold. The proprietary biocompatible scaffold is constructed of primarily polyurethane, a plastic polymer, and is manufactured using a process known as electrospinning, a form of 3D printing. Once seeded, the scaffold is placed in a rotating bioreactor and incubated there 3 to 5 days before the implantation surgery is performed.

Exhibit 3: Biostage Rotating Bioreactor



Source: Company Reports

The Company has performed large-animal studies of its implants in the esophagus, bronchus, and trachea. Based on the results of those studies, the Company has chosen the esophageal implant as its lead product candidate. Benefits of this approach over the traditional standards of care include:

- The Cellframe™ technology has been shown to successfully constitute the continuity of the esophagus without surgeons having to relocate another organ in its place.
- Often severe and costly complications, such as leakage, infection and sepsis, result from other organs such as the stomach being relocated to replace the esophagus; the Cellspan™ implant option is expected to minimize those issues and improve treatment outcomes.
- Repairing/replacing a damaged esophagus can help improve the quality of life for a patient and reduce overall healthcare costs.

PREPARING FOR CLINICAL TRIALS

The Company has outlined the pipeline below for its programs under development:

Exhibit 4: Biostage Current Pipeline

Product	Pre-Clinical	IND	Clinical
Cellspan Esophageal Implants		Q317	2017
Cellspan Bronchial Implants	2016	2017	2018
Cellspan Tracheal Implants	2016	2018	2019
Cellspan Pediatric Esophageal Implants	2016	2017	2018

Source: Company Reports

The Company has been working on its scaffold-based organ implants for several years now. Its first-generation product was a tracheal implant, the HART-Trachea. However, during large-animal studies, the Company learned that the implant elicited an unfavorable inflammatory response and went back to development and testing. To adequately address the results from the earlier studies, throughout 2015 researchers isolated and tested major variables affecting the organ scaffold, including the cell source and protocols, as well as the mechanisms of action of seeding, expansion and implantation.

The resulting next-generation product, based on a new and improved technology platform:

- Uses a different scaffold material and microstructure
- Incorporates a different source and concentration of the patient's cells
- Results from extensive *in vitro* preclinical studies and *in vivo* studies in both small and large animals
- Is now what Biostage refers to as its Cellframe™ technology/Cellspan™ implant

Management's current goal is to file the Investigational New Drug (IND) application in Q317 so that clinical trials in humans can begin soon thereafter. The Company provided an update on the results of the collaboration study in May 2016.

Researchers reported complete regeneration of a segment of the esophagus during a large-animal study conducted in collaboration with Mayo Clinic. The results of the study demonstrated the ability of a Cellspan™ implanted organ to successfully stimulate the regeneration of a section of the esophagus that had been surgically removed for the study. Utilizing pigs as a predictive large-animal model:

- A Biostage scaffold seeded with the recipient animal's own stem cells was implanted in place of the section of the esophagus that had been removed
- The pigs were returned to a solid diet two weeks after the implantation surgery
- The scaffolds were later retrieved via the animal's mouth in a non-surgical endoscopic procedure
- A complete epithelium and other specialized esophagus tissue layers were fully regenerated at 2.5 months
- Study animals gained weight and appeared healthy with no noted significant side effects
- Several pigs are 8 months + post implantation and do not require any specialized care, showing no leakage or infection at the surgery sites

Study results and images are expected to be published in a peer-reviewed scientific publication. And management has stated that there are sufficient data to launch Good Laboratory Practices (GLP) studies, demonstrating sufficiency of its practices, systems, personnel and technology to advance to clinical trials as part of the IND application process with the FDA. The Company discussed takeaways from its planned pre-Investigational New Drug meeting with the FDA for the advancement of its lead product candidate into human clinical studies in October 2016; per the FDA's request, the Company has extended its pre-clinical large-animal safety study, which will now mirror the length of its proposed Phase 1 human clinical study protocol.

As far as conducting upcoming clinical trials, management anticipates that since the number of patients diagnosed with esophageal cancer each year in the US is fairly small, the number of patients required in its trial design will also be relatively small. This should result in a faster enrollment time and less expensive clinical costs for the esophageal indication. The Company intends to contract with third-party manufacturers to perform the seeding of the scaffolds in an automated version of the bioreactor, utilizing Biostage's proprietary protocol under cGMP standards. The scaffolds themselves will be manufactured in-house utilizing the electrospinning fabrication process incorporating an inert polymer that is not bioresorbable (for subsequent retrieval from the patient's body). And the Company will continue to source components for the proprietary bioreactors from third-parties and assemble in-house as well.

TARGET MARKETS

ESOPHAGEAL CANCER

Initially, the Company is focusing on progressing its Cellspan™ esophageal implant as this product candidate has produced compelling data in animal studies. Esophageal cancer is the fastest growing cancer in the western world. Esophageal cancer is a disease in which malignant cancer cells form in the tissues of the esophagus.

According to the American Cancer Society, there are approximately 17,000 new cases of esophageal cancer diagnosed in the US each year. Additionally, in excess of 15,000 people die from esophageal cancer each year. Globally, 400,000-500,000 new patients are diagnosed each year according to the World Health Organization.

Once a cancerous tumor begins to grow in the lining of the esophagus, it can continue through the esophageal wall and spread to other parts of the body via the lymphatic system. The five-year survival rate for esophageal cancer patients is only 18%. The prognosis if caught early is good; however, most do not see their physician until the more obvious symptoms occur (heartburn, difficulty swallowing, food sticking, weight loss, etc.) and by then progression of the disease is fairly far along.

Current treatments include:

- Surgery to remove portions of the esophagus and frequently other nearby organs and lymph nodes
- Gastric pull-up (stomach cut and sutured into tubular shape and then "pulled up" into the chest) to replace the resected portion of the esophagus, or colon interposition (portion of the colon resected and used)
- Chemotherapy and/or radiation

Serious complications are associated with the surgical procedures, primarily leakages, that lead to infections and sepsis, impaired pulmonary function, narrowing of the esophagus, gastroesophageal reflux, and dumping syndrome, which entails chronic nausea, dizziness and vomiting. And there is a 90-day mortality rate of almost 20% for esophagectomy patients.

ESOPHAGEAL ATRESIA

Approximately 1 in 3,000 – 5,000 babies are born in the US each year missing part of his or her esophagus, a condition known as esophageal atresia (EA) caused by congenital abnormality, according to the NIH. If the gap is not too significant, surgeons can connect the two ends. However, if the ends are too far apart, treatment options are somewhat similar to those for esophageal cancer patients – gastric pull-up or colon interposition. There is also an additional procedure known as the Foker process, where traction devices can be used for lengths of time to stimulate the ends of the esophagus to grow and narrow the gap. During this time, the baby must remain in intensive care (and typically hospitalized for months) until a second surgery can be performed to connect the two ends of the esophagus.

OTHER ORGANS

Below we also outline two areas in addition to the esophagus where Biostage's Cellspan™ implants could have a significant impact on the lives of patients – those suffering from non small cell lung cancer (lung cancer is the most common form of cancer, and NSCLC makes up 9/10 cases of lung cancer), tracheal cancer (rare but extremely deadly), tracheal stenosis (narrowings at different levels of the windpipe), and trauma to the trachea.

Exhibit 5: Addressable Markets Are Sizable



Source: Company Reports

RISKS

As with any investment, there are certain risks associated with Biostage's operations as well as with the industry dynamic and surrounding economic and regulatory environments.

- Biotechnology companies as a whole tend to be small with only one to a few product candidates in development. Many biotech companies operate with losses because the time to develop a compound is lengthy. The biotechnology industry is a very research-intensive industry and as a result, the cash burn for many companies is initially high, with offsetting revenues being little to none. Should the Company fail to successfully commercialize a product, it may be forced to cease operations.
- To date, Biostage has incurred significant losses from operations. BSTG reported an accumulated deficit of (\$33.0M) as of 9/30/16. Management expects to incur significant operating losses as it continues product research and development and clinical trials. Therefore, Biostage will likely need additional financing in the future to fund its ongoing R&D programs. If the Company raises money through convertible debt or equity, there is risk of shareholder dilution. Additionally, Biostage may not find the necessary capital under favorable terms depending on the timing and the amount of funds needed. Management most recently stated that the current cash on hand is sufficient to fund operations through year-end and into early 2017.

- It can take many years for a biotechnology product to go from early stage concept to approval following an often long and arduous process, and even then, every stage from production to manufacture, to marketing are highly regulated. In the United States, Canada, and Europe, there are regulatory agencies that heavily enforce regulations. Many of these regulations are promulgated by legislation surrounding issues such as licensing, manufacturing, contract research, research and testing, governmental review and approval of clinical results. All must be addressed prior to commercialization.
- While Biostage's first generation trachea product was ruled by the FDA to be a combination product, the Company has not received confirmation from the FDA as to the path that will be required for its current esophageal implant utilizing its Cellframe™ technology. We note that review of combination products is often more complex and can be more time consuming than the review of a product under the jurisdiction of only one center within the FDA.

- Biostage has rights to certain patent applications to protect its Cellframe™ technology and utilization of that technology in developing its hollow organ implants. Claims against these rights could seriously impair the development prospects for Biostage and result in significant losses of time and resources. And even for future patents issued, rights can continue to be challenged by competitors.
- On November 22, 2016, the Company disclosed that it had received a continued listing deficiency notice from The NASDAQ Stock Market LLC because its share price had failed to meet the \$1.00 minimum closing bid price requirement for 30 consecutive business days. Biostage has a 180-day compliance period ending May 17, 2017, within which it must regain compliance with the minimum bid price requirement (closing at \$1.00 per share or above for at least 10 consecutive days); once that is achieved, the Company will receive written confirmation of compliance. While there is also the possibility of an additional 180-day extension, management expects that near-term milestone achievements will drive the share price above the required level and term.

RECENT RESULTS

On its most recent quarterly earnings call for Q3 FY2016 held November 10, 2016, management disclosed the results below, which were generally in-line with the second quarter expectations built into our annual projections.

Also, the following milestones were noted for BSTG's product candidates in the upcoming year:

- Finalize and submit manuscript and publication with Mayo Clinic on esophageal regeneration data by YE 2016
- Receive Orphan Drug Designation for esophageal implant by early 2017
- File IND application with the FDA for esophageal implant product candidate Q3¹⁷
- Emerge as clinical-stage company with the start of first human clinical studies for esophageal implant program in Q4¹⁷
- Extend Cellframe™ technology as a platform for broader and additional indications to include the bronchus in collaboration with Mayo Clinic in 2017
- Advance the development and submit IND for pediatric esophageal atresia

Exhibit 6: Quarterly Variance Year-over-year

Biostage, Inc. (NasdaqCM: BSTG) Consolidated Statements of Income (in thousands \$, except per share amounts)			
Fiscal Year: December			
	Q3 Sep-15	Q3 Sep-16	Variance
Revenues			
Product revenues	\$ 37.0	\$ 26.0	\$ (11.0) Sales of bioreactor equipment to Harvard Bioscience not material
Total product revenues	\$ 37.0	\$ 26.0	
Cost of revenues	18.0	13.0	(5.0)
Cost of product revenues	18.0	13.0	
Total cost of revenues	19.0	13.0	
Gross (loss) profit			
Operating expenses			
Research and development	1,269.0	2,225.0	Increased spending on preclinical studies, outsourced laboratory services and payroll-related expenses
Selling, general, and administrative	1,042.0	937.0	956.0
Total operating expenses	2,311.0	3,162.0	
Income (loss) from operations	(2,292.0)	(3,149.0)	(105.0) Primarily due to lower sales and marketing compensation costs
Other income / (expense)			
Other income, net	-	96.0	96.0 Change in fair value of warrants
Total other (income) / expense	-	96.0	
Pre-tax income (loss)	(2,292.0)	(3,053.0)	
Income taxes (benefit)	-	-	
Net income (loss)	(2,292.0)	(3,053.0)	
Basic and Diluted EPS (loss)	\$ (0.19)	\$ (0.18)	
Weighted Average Basic and Diluted Shares Outstanding	11,974.0	17,107.0	

Source: Company Reports, Stonegate Capital Partners

INCOME STATEMENTS

Biostage, Inc. (NasdaqCM: BSTG)

Consolidated Statements of Income (in thousands \$, except per share amounts)

Fiscal Year: December

	FY 2013	FY 2014	FY 2015	FY 2016 E
Revenues				
Product revenues	\$ 22.0	\$ 93.0	\$ 118.0	\$ 83.9
Total product revenues	\$ 22.0	\$ 93.0	\$ 118.0	\$ 83.9
Cost of revenues				
Cost of product revenues	11.0	48.0	139.0	71.4
Total cost of revenues	11.0	48.0	139.0	71.4
Gross (loss) profit	11.0	45.0	(21.0)	12.5
Operating expenses				
Research and development	4,562.0	5,119.0	4,786.0	7,479.0
Selling, general, and administrative	4,266.0	5,983.0	6,894.0	4,261.0
Total operating expenses	8,828.0	11,102.0	11,680.0	11,740.0
Income (loss) from operations	(8,817.0)	(11,057.0)	(11,701.0)	(11,727.5)
Other income / (expense)				
Other income, net	-	(4.0)	(3.0)	306.0
Total other (income) / expense	-	(4.0)	(3.0)	306.0
Pre-tax income (loss)	(8,817.0)	(11,061.0)	(11,704.0)	(11,421.5)
Income taxes (benefit)	-	-	-	-
Net income (loss)	(8,817.0)	(11,061.0)	(11,704.0)	(11,421.5)
Basic and Diluted EPS (loss)	\$ (1.14)	\$ (1.41)	\$ (1.05)	\$ (0.71)
Weighted Average Basic and Diluted Shares Outstanding	7,740.0	7,821.0	11,154.0	16,007.0
EBITDA	(8,659.0)	(10,694.0)	(11,223.0)	(11,287.5)
Adjusted EBITDA	(7,289.0)	(8,129.0)	(7,257.0)	(9,860.5)
Growth Rate Analysis Y/Y				
Research and development	n/a	12.2%	-6.5%	56.3%
Selling, general, and administrative	n/a	40.2%	15.2%	-38.2%
Net income (loss)	n/a	-25.5%	-5.8%	2.4%
EPS	n/a	-24.2%	25.8%	32.0%
EBITDA	n/a	-23.5%	-4.9%	-0.6%
Weighted Average Basic and Diluted Shares Outstanding	n/a	1.0%	42.6%	43.5%

Source: Company Reports, Stonegate Capital Partners estimates

VALUATION

Biostage, Inc., has made significant strides in the past few years to refocus on the potential of near-term approvals and to begin generating significant revenue as soon as possible. Following a spin-off from Harvard Bioscience in November 2013 and a rebranding in March 2016, BSTG now has clearer message for the Street with a straight-forward path to commercialization and a simplified capital structure. Recent positive results show the Company on track to file an IND submission by Q317 in order to launch human clinical trials in the short-term. Currently, BSTG has three promising programs in the pipeline that offer radically improved treatment options for the patients afflicted with esophageal cancer, non small cell lung cancer, and damage to the trachea as a result of cancer, stenosis or trauma. The Company estimates the total revenue opportunity for these three programs in excess of \$1.5 billion for the US and the EU.

We believe that an appropriate tool for analyzing the longer-term opportunity for Biostage is through a discounted cash flows analysis. Exhibit 7 presents a summary of the detailed analysis we performed based on certain assumptions for the Company's esophageal implant program with the most sizable market and the most advanced preclinical work, providing sensitivity for discount rates and terminal growth rates. Given the very early stages of the bronchial and tracheal implant programs, we have not factored them into the analysis at this point, although we note that both indications show significant promise to move forward quickly following success with the esophageal indication.

We have assumed that commercialization of the Biostage Cellspan™ esophageal implant begins in 2021, given the Company's current pursuit of the orphan drug designation. We have incorporated a population of 15,000 patients, out of which we assume that approximately 1/3 will be eligible for surgery. We show market penetration ramping up to 75% of the surgical patient population by 2025; we used an average price of \$100,000 per patient per year, with annual increases around 3%. We factor in a probability of commercialization of 50%.

Exhibit 7: Summary of DCF Analysis

Discount Rate	Terminal Growth Rates				
	0%	1%	2%	3%	4%
23.0%	\$5.27	\$5.43	\$5.60	\$5.78	\$5.99
24.0%	\$4.76	\$4.89	\$5.04	\$5.20	\$5.37
25.0%	\$4.30	\$4.42	\$4.54	\$4.68	\$4.83
26.0%	\$3.89	\$3.99	\$4.10	\$4.21	\$4.34
27.0%	\$3.52	\$3.61	\$3.70	\$3.80	\$3.91

Source: Stonegate Capital Partners

We have made conservative assumptions on Biostage's changes in working capital, depreciation and amortization, as well as capex going forward. We incorporated a tax rate of 22% beginning in 2024. We assume that given the need to raise capital for continuing operations, the share count grows to approximately 25.1M by 2025.

A mid-range discount rate of 25% has been included, which we feel is appropriate given the early stages of the programs, regulatory hurdles both in the US and abroad, and the need for reimbursement approvals. We have incorporated terminal values ranging from 0% - 4%. Our discounted cash flows analysis for the esophageal implant program results in the range of valuation of approximately \$3.99 - \$5.20, with a midpoint of approximately \$4.50. BSTG currently trades at \$0.82 per share. Again, we note that this analysis covers the potential of the esophageal program only at this point, with two other promising programs in the Biostage pipeline that could follow just years behind given continued impressive results from the clinic. Additionally, we believe that potential partners/third-party collaborators will be spurred to act regarding the bronchial and tracheal indications as positive results continue for Biostage's Cellspan™ implants.

CORPORATE TIMELINE

October 2016 – Company discloses takeaways from pre-IND meeting with the FDA, which included extending current preclinical esophageal implant studies

August 2016 – Biostage receives the National Instruments Engineering Impact Award for Regenerating and Restoring Organ Function Damaged by Disease or Trauma as well as the 2016 Community's Choice Humanitarian Award

July 2016 – Harout DerSimonian, Ph.D. joins the Company as its Chief Scientific Officer, a new position at BSTG

June 2016 – BSTG files for orphan drug designation with the FDA for its Cellspan™ esophageal implants

May 2016 – Company announces an offering of approximately 2.8M shares of registered common stock at \$1.7625 per share for gross proceeds of approximately \$5M; each share has an accompanying warrant good for one-half share of stock, exercisable six months from date of issuance and good for five years

May 2016 – Significant pre-clinical data announced, including the complete regeneration of a segment of esophagus in a large-animal study conducted in collaboration with Mayo Clinic

March 2016 - Management announces that as of April 1, 2016, the Company's name will be changed to Biostage, Inc., and it will begin trading under the symbol "BSTG"; the rebranding initiative reflects the evolution from a manufacturer of bioreactors and research tools to a pioneer/developer of bioengineered organ implants

December 2015 - The Company announces a 2 1/2 year, \$15M common stock purchase agreement with Aspire Capital Fund, LLC, following which it completes an initial sale of 500,000 shares at \$2.00 per share

November 2015 - Significant results announced, including clear evidence of complete esophageal tissue regeneration from recently conducted animal studies utilizing the Company's 2nd generation bioengineered implant platform

July 2015 – Jim McGorry named CEO of the Company

January 2015 - The Company extends milestones for the HART-Trachea implant following an unfavorable inflammatory response; dramatic improvements as a result of additional testing and research are successful, resulting in the new implant approach now known as Cellframe™ technology

April 2014 - Saverio La Francesca, M.D. joins the Company as its first Chief Medical Officer, and the Company continues to investigate and pursue development of its first-generation tracheal implant product under his leadership

November 2013 - Harvard Bioscience separates its regenerative medicine business and spins off interests to its stockholders

May 2012 - Incorporated as a subsidiary of Harvard Bioscience, Inc. in the state of Delaware as a company designing and manufacturing devices for life science researchers

BIOSTAGE GOVERNANCE

James J. McGorry, President and CEO – Jim McGorry is a seasoned life sciences executive with over thirty years of leadership experience in both medical technology and biotechnology businesses. Most recently Mr. McGorry served as Executive Vice President and General Manager, Translational Oncology Solutions for Champions Oncology and previously was Executive Vice President of Commercial Operations at Accelent. During a 12-year tenure at Genzyme, he held leadership positions across several therapeutic areas, including Biosurgery, Cardiac Surgery, Oncology and Transplant. Mr. McGorry also was President of Clineffect Systems, an electronic medical records company. He began his life sciences career with Baxter Healthcare Corporation, where he spent 11 years in positions of increasing responsibility. Mr. McGorry also served as an officer in the United States Army for six years, including commanding a special operations Green Beret SCUBA detachment. He also has been a member of the Biostage Board of Directors since February 2013. Mr. McGorry has an MBA with a concentration in healthcare from Duke University, Fuqua School of Business, and a BS in engineering from the United States Military Academy at West Point where he was the President of his class.

Tom McNaughton, CFO - Tom McNaughton served as the Chief Financial Officer of Harvard Bioscience since November 2008. From 2007 to 2008, Mr. McNaughton was a consultant providing services primarily to an angel-investing group and a silicon manufacturing start-up. From 2005 to 2007, Mr. McNaughton served as Vice President of Finance and Chief Financial Officer for Tivoli Audio, LLC, a venture capital-backed global manufacturer of premium audio systems. Prior to joining Tivoli Audio, LLC, from 1990 to 2005, Mr. McNaughton served in various managerial positions in the areas of financial reporting, treasury, investor relations, and acquisitions within Cabot Corporation, a global manufacturer of fine particulate products, and served from 2002 to 2005 as Finance Director, Chief Financial Officer of Cabot Supermetals, a \$350 million Cabot division that provides high purity tantalum and niobium products to the electronics and semiconductor industries. Mr. McNaughton practiced from 1982 to 1990 as a Certified Public Accountant in the audit services group of Deloitte & Touche, LLP. Mr. McNaughton holds a BS in accounting and finance from Babson College.

Saverio La Francesca, M.D., Executive Vice President and Chief Medical Officer - Saverio La Francesca is a cardiothoracic surgeon with extensive clinical experience committed to the clinical translation of transformative medical research. Dr. La Francesca has a unique combination of experience that features over 25 years of academic clinical surgical practice and innovative research, with a foundation in the cardiovascular, thoracic transplantation, cardiac assist device and regenerative medicine fields. He joined the Company from the Department of Cardiovascular Surgery and Transplantation at the DeBakey Heart and Vascular Center at the Houston Methodist Hospital, where he developed the current surgical and perfusion techniques for thoracic organ procurement and preservation and where he was also the Director of the Ex-vivo Lung Perfusion Laboratory. Previously he was an attending surgeon at the Department of Cardiopulmonary Transplantation at the Texas Heart Institute in Houston, Texas. Dr. La Francesca still holds an appointment as Associate Professor of Surgery at the University of Rome "La Sapienza" in Rome, Italy. He received his MD in medicine and surgery in 1985 at the University of Palermo. He did his Residency in Cardiovascular Surgery in the Department of Cardiovascular Surgery at the University of Rome "La Sapienza" and then completed his post-doctoral training with fellowships at the Texas Heart Institute under the supervision of pioneer surgeon Denton Cooley. He was also a Clinical/ Research fellow at McGill University in Montréal, Québec, Canada and at the Baylor College of Medicine in Houston. Dr. La Francesca holds UNOS certifications as a heart transplant surgeon and lung transplant surgeon. He is also certified as surgeon for the use of the HeartMate and the Jarvik 2000 left ventricular assist devices.

Laura Mondano, Vice President of Regulatory Affairs – Laura Mondano has more than 20 years of experience in regulatory affairs supporting the development, commercialization and post-approval lifecycle management of drug, biologic and device products. Her product experience includes autologous cell/tissue therapies for cartilage repair and severe burn care, an orphan drug for the treatment of non-Hodgkin's lymphoma and multiple myeloma, and implants for cardiovascular disease. Ms. Mondano joined Biostage from Histogenics Corporation, where she held the position of Vice President, Regulatory Affairs since 2012. Prior to this, she spent over eight years with Genzyme Corporation as Director, Global Regulatory Affairs and held management positions in regulatory affairs at Anika Therapeutics, Inc. and Boston Scientific Corporation. Ms. Mondano has a B.S. in medical technology from the University of New Hampshire. She attended the University of Massachusetts, Lowell for additional studies in mechanical engineering technology and is Regulatory Affairs Certified.

Harout DerSimonian, Ph.D., Chief Scientific Officer - Harout DerSimonian is a former Assistant Professor at Harvard Medical School and Assistant Immunologist at Massachusetts General Hospital. He joined Biostage during the start of the second half of 2016. Prior to this, he was an Instructor in the Department of Rheumatology and Immunology at Brigham and Women's Hospital studying mechanisms of T cell development and autoimmunity. Dr. DerSimonian's experience includes postdoctoral training at Dana Farber Cancer Institute working in the area of human T cell specificity and tumor immunology. Most recently he was Principal Investigator at Diacrin, Inc., a biotech company in Charlestown, MA, where he directed all immunology programs including immunotherapy and cell therapy translational programs. He established and directed Diacrin's cardiac cell therapy programs using autologous stem cells which culminated in initiating the first FDA-approved human cardiac cell therapy clinical trials in the US. He has directed innovative cell therapy programs using directly reprogramed autologous cell technologies as Senior Scientific Director and Advisor for number of neuronal and cardiac stem preclinical and clinical programs, including as Senior Director at Novagenesis Foundation in Switzerland and Senior Advisor at New World Laboratories in Laval, Canada. He was also instrumental in establishing the start up company NatCure Sciences, Inc. to help identify and develop plant-derived immune-suppressive and anti-inflammatory products. Dr. DerSimonian holds a Ph.D. in Immunology from Tufts Sackler School of Graduate Biomedical Sciences, and a B.A. in Biology from Hartwick College, NY.

Board of Directors:

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Blaine H. McKee, Ph.D. - Director

James J. McGorry – CEO and Director

Thomas Robinson - Director

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