

# Cytori Therapeutics, Inc.

## Initiating Coverage with Buy and \$3.25 Price Target

Promising cell therapy product in Phase 3 clinical development

### COVERAGE INITIATION

Rating: Buy

Ticker: CYTX

Price: \$2.70

Target: \$3.25

**Pure play in regenerative medicine:** We believe that Cytori is an intriguing pure play regenerative medicine company. The Company's key product, the Celution System, facilitates the use of a cocktail of autologous, adipose-derived stem and regenerative cells (ADRCs) to treat cardiovascular disease and soft tissue defects. Thus far, the therapy has been evaluated in more than 40 investigator and Company sponsored studies and administered to over 5,000 patients.

**Key proprietary technology:** The use of ADRCs is a unique and promising approach that offers advantages over stem and regenerative cells from other sources. The Company's scientific data suggest ADRCs improve blood flow, moderate the immune response and keep tissue at risk of dying alive. The Company's proprietary Celution System is a medical device that enables bedside access to an individual patient's own ADRCs by automating and standardizing the extraction, washing, and concentration of these cells for present and future clinical use. The technology is supported by 54 worldwide issued patents, with more than 75 others pending.

**Lead opportunity for chronic ischemic heart disease in U.S. pilot study:** The most significant opportunity for Cytori is the potential to use ADRCs to treat patients with chronic ischemic heart disease. Proof of concept for this application was demonstrated in the PRECISE trial conducted in Europe. Patients are now being enrolled in the ATHENA pilot study, which is a 45 patient, prospective, randomized, placebo-controlled, double-blinded study being conducted in the U.S.

**BARDA contract enables significant opportunity for U.S. soft tissue applications:** In September 2012, Cytori entered into a contract with the U.S. Health and Human Service's Biomedical Advanced Research Authority (BARDA) to develop new treatments for thermal burns. The BARDA contract could provide up to \$106 MM over a five-year period that would support all preclinical, clinical, regulatory and technology development activities needed to obtain a medical device-based approval by the FDA, under an IDE/PMA pathway, for use of Cytori's Celution System as a treatment for thermal burns.

**Current valuation attractive:** We believe that CYTX is an intriguing speculative small cap investment story. Our 12-month price target of \$3.25 is calculated using an NPV analysis.

### Company Description

Founded in 1996 and headquartered in San Diego, California, Cytori Therapeutics, Inc., is a regenerative medicine company, focused on the development of autologous adipose-derived stem and regenerative cells (ADRCs) to treat cardiovascular disease and repair soft tissue defects.

United States  
Healthcare

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### Stock Data

Exchange:	NasdaqGM
52-week Range:	\$2.01 -4.93
Shares Outstanding (million):	66.7
Market cap (\$million):	\$185
EV (\$million):	\$184
Debt (\$million):	\$25
Cash (\$million):	\$26
Avg. Daily Trading Vol. (\$million):	0.43
Float (million shares):	60
Short Interest (million shares):	9.6
Incorporation:	Delaware
Public auditor:	KPMG LLP

### Revenues (US\$ million)

	2011A	2012E	2013E	2014E
Q1 Mar	2.6A	1.5A	3.5E	4.1E
Q2 Jun	2.4A	4.4A	3.5E	3.0E
Q3 Sep	2.1A	1.3A	3.6E	4.9E
Q4 Dec	2.8A	4.3E	4.3E	6.2E
<b>Total</b>	<b>10.0A</b>	<b>11.5E</b>	<b>14.9E</b>	<b>18.2E</b>
EV/Revs	18.4	16.0	12.4	10.1

### Earnings per Share (GAAP)

	2011A	2012E	2013E	2014E
Q1	(0.23)A	(0.16)A	(0.14)E	(0.11)E
Q2	(0.10)A	(0.13)A	(0.14)E	(0.13)E
Q3	(0.15)A	(0.19)A	(0.11)E	(0.10)E
Q4	(0.12)A	(0.15)E	(0.11)E	(0.10)E
<b>Total</b>	<b>(0.60)A</b>	<b>(0.64)E</b>	<b>(0.50)E</b>	<b>(0.44)E</b>
P/E	N/A	N/A	N/A	N/A

### EBITDAS (US\$ million)

	2011A	2012E	2013E	2014E
Q1	(10.2)A	(7.2)A	(7.2)E	(6.8)E
Q2	(3.3)A	(5.7)A	(7.0)E	(7.7)E
Q3	(6.7)A	(9.1)A	(6.7)E	(7.3)E
Q4	(5.0)A	(6.9)E	(6.7)E	(7.4)E
<b>Total</b>	<b>(25.2)A</b>	<b>(29.0)E</b>	<b>(27.6)E</b>	<b>(29.2)E</b>

EBITDAS defined as earnings before interest, taxes, depreciation, amortization and stock-based compensation.

### Important Disclosures

Ascendant Capital Markets LLC seeks to do business with companies covered by its research team. Consequently, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making an investment decision.

**For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report, beginning on page 17.**



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## Exhibit 1: CYTX Stock Price (5 Years)



Source: Nasdaq.com

## INVESTMENT THESIS

We are initiating coverage of CYTX with a Buy rating and 12-month price target of \$3.25. Cytori is a pure play regenerative medicine company, which is an emerging field that aims to repair or restore lost or damaged tissue and cell function. Thus we believe it represents an intriguing speculative small cap investment story. The Company's scientific data suggest that its autologous adipose-derived stem and regenerative cells (ADRCs) improve blood flow, moderate the immune response, and keep tissue at risk of dying alive. Hence, the Company believes that these cells can be applied across multiple ischemic (compromised blood flow) conditions. The Company is currently developing the use of ADRC therapy for the treatment of cardiovascular disease, specifically the acute and chronic damage caused to the heart muscle following a myocardial infarction, and to repair soft tissue defects, including injuries associated with cosmetic and reconstructive surgery, and injuries caused by thermal burns. The key component of Cytori's ADRC therapy is its proprietary, patent-protected, Celution System family of products. The Celution System facilitates a real time bedside procedure in which the patients' adipose cells are harvested, concentrated, and then re-administered back into the patient. Importantly, since the Celution System does not change the relevant biological characteristics of the cells, the ADRC therapy applications currently being evaluated will be regulated by the FDA as potential approvable claims for a medical device, not as a drug, which should facilitate a quicker clinical development pathway. The Celution System was approved in Europe (CE Mark) in 2007, with an initial indication for use for the extraction and re-implantation of regenerative cells from adipose tissue. However, the Celution System has not yet been approved for sale in the U.S. by the FDA.

The Company is currently focused on a couple of key initiatives. First, they are currently enrolling patients in a pilot clinical study that will evaluate the use of ADRCs to treat patients with chronic ischemic heart disease. ATHENA is a randomized, double-blind, placebo controlled study that will seek to enroll up to 45 patients, at 6 clinical centers across the U.S., who have chronic ischemic heart disease and who are not eligible for percutaneous or surgical revascularization. Chronic ischemic heart disease is a leading cause of death worldwide and current treatments for heart failure represent one of the highest cost burdens to the healthcare system due to invasive surgical procedures, lengthy hospital stays, and high re-hospitalization rates. The primary efficacy endpoint

in this study is the change in peak oxygen consumption (Max VO<sub>2</sub>) at 6 months. We expect topline data from this study in mid-2014.

In September 2012, Cytori entered into a contract with the U.S. Health and Human Service’s Biomedical Advanced Research Authority (BARDA) for up to \$106 MM in funding to develop Cytori’s cell therapy as a treatment for thermal burns combined with radiation injury. The aim of the contract is to create a new medical countermeasure for thermal injuries that could result from a mass casualty event, such as a terrorist attack involving detonation of an improvised nuclear device in a major metropolitan area. The Company is now in the first phase of the contract, which provides a guaranteed \$4.7 MM in funding, and which has two primary aims. The first objective is to conduct preclinical research that establishes proof of concept for Cytori’s cell therapy. The second is to accelerate Cytori’s ongoing development of a next-generation version of the Celution System, which will feature a significant reduction in the size of the device and be more efficient in terms of time and yield of the ADRCs, at a significantly lower cost of goods. Should the Company be successful in completing the preclinical objective, they will be positioned to advance into the human clinical phase of the contract, under which they would be eligible to receive up to \$55 MM in funding to conduct a pilot study. We expect that BARDA will announce its decision whether to exercise its option to move forward with Cytori into this phase of the contract in mid-2014.

We believe that if Cytori is successful with these two initiatives, they will serve as major catalysts to drive the value of the stock higher. However, we anticipate that these will be 2014 events. Between now and then, we believe that the stock price will be driven by favorable progress reports on these two primary initiatives and quarterly results for product sales. Although the Celution System has been on the market for several years, sales have been constrained by the lack of widespread reimbursement for the approved indications for use of the device. However, product sales, while still at a modest level, have begun to accelerate over the past couple of quarters, driven by new indications for use granted under the CE Mark last year and the approval in Japan last September as a Class 1 device. We believe that product sales in 2013 could gain additional momentum should the device obtain regulatory approval in Canada and should the device obtain an expanded claim under the CE Mark for use in cardiovascular applications.

**Exhibit 2: Cytori Cell Therapy Development Pipeline**

	Preclinical	Phase I/II	Pivotal	Full Market Access Private Pay/ Reimbursement
Refractory Heart Failure	→	→		U.S.
Vascular Delivery	→	→	→	Europe
Acute Myocardial Infarction	→	→		Europe
BARDA (Burns)	→			U.S.
Breast Recon & Soft Tissue	→	→	→	Europe/AP
Independent App Development	→	→	→	Europe/AP

Source: Cytori Corporate Presentation

**ADIPOSE-DERIVED STEM AND REGENERATIVE CELL THERAPY**

Cell therapy is one of the key components in the emerging market of regenerative medicine. The therapeutic benefit of blood stem cells derived from bone marrow has been recognized for decades. The use of hematopoietic stem cell transplantation is most often

performed for people with diseases of the blood, bone marrow, or certain cancers. Given their unique regenerative abilities, stem cells can serve as a sort of internal repair system and thus offer new potentials for treating many types of disease such as Alzheimer's, spinal cord injury, stroke, burns, heart disease, diabetes, osteoarthritis, and rheumatoid arthritis. However, their widespread use in broader clinical applications has yet to become a reality due to a number of limitations. These include: immunomodulation issues that can require the frequent use of immune suppressive drugs to avoid rejection or immune system complications, the inability to procure or efficiently produce significant quantities of stem cells, and a range of potential safety issues.

Embryonic stem cells are pluripotent, meaning they can develop into each of the more than 200 cell types of the adult body, and they have unlimited self renewal. However, as it pertains to therapeutic applications, this pluripotent capability comes with the risk that embryonic stem cells can cause the formation of teratomas (tumors) or unexpected ectopic tissue. Progenitor cells have a capacity to differentiate into a specific type of cell, but they are already far more specific. Further, unlike stem cells that can replicate indefinitely, progenitor cells can only divide a limited number of times. Mesenchymal stem cells are a type of adult stem cell that are characterized by their potential to differentiate into narrower, but multiple cell types, including bone, cartilage, adipose tissue, muscle, tendon, and stroma. Mesenchymal stem cells can be derived from either bone marrow or adipose tissue. However, the ability to source stems cells from adipose tissue is advantagous. Adipose tissue is the richest known source of adult stem cells in the body; they usually comprise around 1-2% (and as much as 5%) of the starting population obtained from adipose tissue. This compares very favorably to bone marrow as a source, in which Mesenchymal stem cells usually comprise only 0.002% of cells.

Cytori's Adipose-Derived Stem and Regenerative Cells (ADRC) are a proprietary, patent-protected product. ADRCs are a population of non-cultured cells that can be extracted from adipose tissue by a process of washing, enzymatic digestion, and filtration. This process is facilitated by Cytori's Celution System. The process starts with the physician performing a minimally invasive small liposuction to obtain a small amount of fat tissue (approximately 100-200 cc's of fat). The cells are then placed into the Celution System device which separates out the stem and regenerative cells, which are then re-injected back into the patient. This all occurs in a single procedure, that can be performed at the patient's bedside, and only takes about an hour. Importantly, as an autologous product (the cell donor and recipient are the same person), there is no risk of rejection and no need to use immunosuppressive therapy. The output of the device is actually a cocktail of cells that includes stem cells, plus a lot of other healing cells such as endothelial, progenitor and smooth muscles cells. While the exact mechanism of action remains undefined, it is believed that this heterogeneous population of cells drives a variety of paracrine biological activities thought to play a critical role in repairing diseased and damaged tissues including tissue remodeling, angiogenesis, and resolution of inflammation.

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### Exhibit 3: Composition of Adipose-Derived Regenerative Cells

Cell Type	Average Frequency
Endothelial cells	7%
Smooth muscle cells	9%
Blood cells	22%
Tissue Macrophages	23%
Other (CD34+/CD31-/CD45-)	38%

Source: Cytori Corporate Presentation

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The Celution 800 System is manufactured by Cytori in its own facility. A more feature rich version of the product, the Celution One System is manufactured by Olympus through a joint venture with Cytori. The Celution System sells for about \$100,000. Each procedure involves the use of \$2,000-\$4,000 single-use disposable accessories, which have the potential to represent an attractive

source of recurring revenue. Cytori is developing a next generation version of the Celution System, which will feature a smaller footprint, faster throughput and yield, and a lower cost to manufacture.

The Celution System was approved in Europe (CE Mark) for the extraction and re-implantation of regenerative cells from adipose tissue in 2007. In July 2010, the Celution System received expanded indications for use under the CE Mark to include breast reconstruction, repair of soft tissue defects, and the facilitation of healing certain types of wounds, such as those resulting from Crohn's disease. In August 2012, additional indications under the CE Mark were obtained for: cryptoglandular fistula repair not responded to available standard-of-care, tissue ischemia; deficiency or injury of skin, fat, muscle and fascia; and soft tissue wounds or fistulae associated with trauma, diabetes, ischemia or radiation injury. In September 2012, Class I device clearance for the Celution System technology was obtained in Japan.

Cytori has been unsuccessful thus far in obtaining either FDA PMA or 510k clearance for the Celution System in the U.S.

#### Exhibit 4: Cytori Cell Therapy Process



Source: Cytori Corporate Presentation

#### OPPORTUNITY FOR ADRCs IN ISCHEMIC HEART DISEASE

The most significant opportunity for Cytori is the potential to use ADRC therapy to treat patients with cardiovascular disease, which is the number one cause of death in the U.S., Europe, and the majority of other countries around the world. Heart failure is a chronic, progressive condition in which the heart muscle is unable to pump enough blood through to meet the body's physiological needs for blood and oxygen. Heart disease results from atherosclerosis, in which plaques consisting of inflammatory cells, smooth muscle cells, lipids and fibrous tissue develop within the arterial wall. These plaques can reduce the flow of oxygenated blood, either by gradually narrowing the vessel lumen or by rupturing and stimulating thrombosis that blocks the artery. Insufficient coronary perfusion is associated with major adverse cardiovascular events like myocardial infarction (a heart attack). Decreased heart function is an after effect of a heart attack. During a myocardial infarction, a portion of the heart muscle dies. The magnitude of the after effects of a heart attack depend on how much, how long and where the coronary arteries were blocked, and how much dead tissue, along with the scar tissue that inevitably forms in its place, is created. This tissue lacks the ability to contract, which results in the person having less overall cardiac muscle to pump blood. Thus, if a sufficient amount of heart muscle dies during the heart attack, a person's heart may be unable to deliver enough blood, oxygen and nutrients to the cells, tissues and organs; this sets the person on a path towards congestive heart failure.

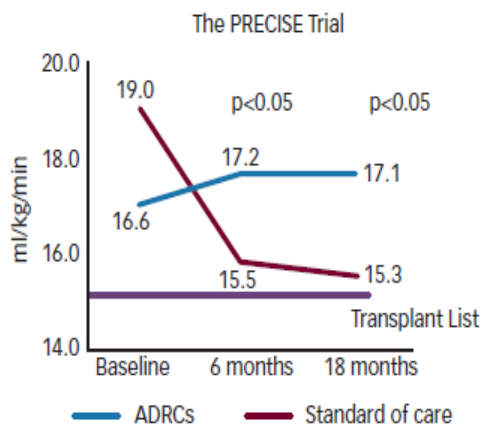
The overall evidence base from clinical trials evaluating the use of stem cell therapy to treat heart disease remains thin. Most of the trials conducted thus far have had limited statistical power, due to their small size. Additionally, most of them have employed

surrogate endpoints, which measure cardiac function, rather than the sterner test of mortality, which require trials with larger patient numbers and longer duration.

Cytori is currently pursuing applications for ADRC therapy in chronic ischemic heart disease and acute myocardial infarction. In acute myocardial infarction (AMI) patients, the primary goal of stem cell therapy is to reduce the scar tissue that forms immediately after revascularization and thereby improve patients’ long-term prospects. In preclinical animal models of AMI, administration of freshly isolated adipose tissue–derived regenerative cells (ADRCs) immediately after the AMI was shown to improved left ventricular (LV) function and to evoke other biological activity in the infarct border zone, which can help to reduce infarct scar formation and adverse cardiac remodeling. Treating chronic ischemic heart disease is a more complex undertaking. Because atherosclerosis is progressive, most current therapies are not effective in all patients and may provide benefit for a limited period of time. Since this a progressive condition, patients can generally expect symptoms to worsen over time, often eventually leading to death. In chronic ischemic heart disease, the primary goal of stem cell therapy is to increase myocardial circulation by stimulating the formation of collateral vessels (angiogenesis) around the obstructed coronary arteries. This therapy could represent an alternative treatment for patients who are not candidates for conventional revascularization techniques, in order to forestall the progression of disease.

For patients with chronic myocardial ischemia, Cytori has previously conducted the PRECISE trial, which was a 27 patient European safety and feasibility trial. 18 month follow-up data from the PRECISE trial was presented at the 2010 American Heart Association meeting, which demonstrated that the therapy was safe and demonstrated evidence of significant improvement in measures of cardiac functional capacity. Based on these results, the Company has filed for an expanded indication under the CE Mark for use of the Celution System in no-option chronic myocardial ischemia patients, which is currently under review.

**Exhibit 5: PRECISE Trial - Change in Max Oxygen Consumption from Baseline to 6 and 18 Months**



Source: *Interventional Cardiology Volume 7 (Issue 2), Page 80.*

Cytori is now conducting a U.S. pilot study, ATHENA, to evaluate the use of ADRCs for chronic refractory ischemic heart disease. ATHENA is a multi-center, prospective, randomized, double-blind safety and feasibility trial to investigate the use of Cytori’s cell therapy in patients who are not amenable to traditional surgical (coronary artery bypass grafting) or interventional revascularization (balloon angioplasty and stenting). The trial will enroll 45 patients in six centers in the U.S. Patients will be randomized to receive either Cytori’s cell therapy (n=30) or placebo (n=15). The trial will measure several endpoints. The primary efficacy endpoint is peak oxygen consumption (Max VO<sub>2</sub>), which is an objective functional measurement that can be predictive of outcomes in heart disease, including mortality, and is commonly used as a primary determinant for qualifying patients for heart transplantation. Additional endpoints include perfusion defect, left ventricle end-systolic and diastolic volume and ejection fraction at six and 12 months. ATHENA will also evaluate heart failure symptoms such as angina and quality of life at 12 months.

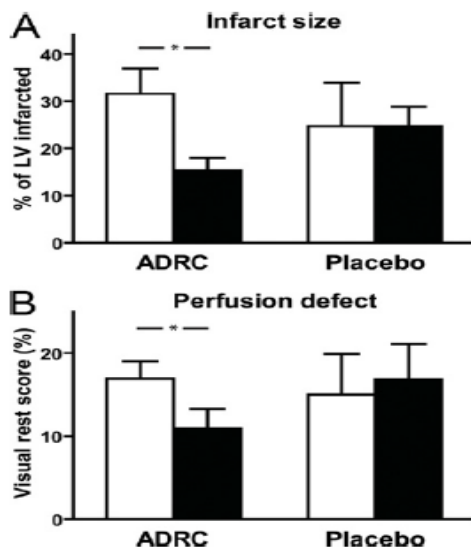


For patients with acute myocardial infarction, Cytori has previously conducted the APOLLO trial, which was a 14 patient safety and feasibility study in Europe that evaluated the use of ADRCs as a treatment in heart attack patients. Although a very small sample size, the results from this study demonstrated that intracoronary infusion of freshly isolated ADRCs was safe and did not result in an alteration of coronary flow, or any indication of microvascular obstruction, and resulted in a trend toward improved cardiac function, significant improvement of the perfusion defect, and a 50% reduction of myocardial scar formation. Specifically:

- The percentage of left ventricle (LV) infarcted was reduced by 52% ( $31.6 \pm 5.3\%$  to  $15.3 \pm 2.6\%$  at six-month follow-up,  $p=0.002$ ) in the ADRC-treated patients, as opposed to no change in the placebo-treated AMI patients ( $24.7 \pm 9.2\%$  vs.  $24.7 \pm 4.1\%$ ). The difference between the groups was not statistically significant.
- There was a significant improvement of the perfusion defect in ADRC-treated patients from  $16.9 \pm 2.1\%$  to  $10.9 \pm 2.4\%$  at six-month follow-up (change of 6.0%,  $p=0.004$ ) as compared to a deterioration in the placebo group by 1.8% ( $15.0 \pm 4.9\%$  to  $16.8 \pm 4.3\%$ ).
- Left ventricular ejection fraction (LVEF), measured by SPECT, improved with an absolute difference of +5.7% ( $p=0.114$ ). In ADRC treated patients, LVEF improved by 4% ( $52.1\%$  to  $56.1\%$ ), as compared to a deterioration of 1.7% in the placebo group ( $52.0\%$  to  $50.3\%$ ).

Full 6 month results were published in the peer-reviewed Journal of the American College of Cardiology in January 2012.

#### Exhibit 6: APOLLO Study - Infarct size and perfusion deficit



Source: Journal American College of Cardiology Volume 59 2012; Pages 539-540.

Cytori is currently conducting a pivotal European trial, ADVANCE, to evaluate the use of ADRCs for acute myocardial infarction. ADVANCE is a randomized, placebo controlled, double-blind trial that will enroll up to 216 patients with ST-elevation myocardial infarction at up to 35 centers, predominantly in Europe. Within 24 hours of experiencing heart attack symptoms, a patient's own ADRCs are extracted and injected into his/her coronary artery. The primary endpoint of the trial is reduction in infarct size as measured by cardiac magnetic resonance imaging (MRI).



## BARDA CONTRACT PROVIDES POTENTIAL SOURCE OF R&D FUNDING

In September 2012, Cytori entered into a contract with the U.S. Health and Human Service's Biomedical Advanced Research Authority (BARDA) for up to \$106 MM in funding to develop Cytori's cell therapy as a treatment for thermal burns combined with radiation injury. The aim of the contract is to create a new medical countermeasure for thermal injuries that could result from a mass casualty event, such as a terrorist attack involving detonation of an improvised nuclear device in a major metropolitan area. Under the contract, BARDA will make a minimum commitment to Cytori of \$4.7 MM. At the end of an initial evaluation period, which could last up to two years, BARDA will then have the option to make a more significant investment of up to \$55 MM to fund the evaluation of Cytori's cell therapy in a human clinical trial as a treatment for patients with thermal burns. The end goal of this initiative is to obtain FDA PMA approval of Cytori's therapy for this indication. Depending on the amount of human clinical data the FDA may require to approve this therapy, the contract would provide up to another \$45 MM to conduct an additional pivotal study.

The BARDA contract potentially creates a number of benefits for the Company. The primary benefit is that it could represent a potential source of non-dilutive R&D funding. This could offset the entire cost for Cytori to finally be able to commence commercial sales of its Celution System in the U.S. for treating soft tissue injuries with a FDA PMA approval for thermal burns, as well as funding the development of the Company's next generation version of the device. The second benefit is that the U.S. Government could be a potential significant customer of Celution Systems, which sell OUS for approximately \$100 K. Given that the goal is to be prepared to deal with the aftermath of mass casualties following a nuclear event, this should be envisioned as a large number of the units. Further, once a unit was placed in a hospital, BARDA's objective is not just to have the equipment sit idle waiting for a disaster to occur, but for hospital staff to already be familiar with the equipment due to frequent use. Thus these units will be able to generate revenue under the approved indications for use. Finally, now that this contract is in place, it could serve as a catalyst for other governments to possibly contract with Cytori for the same use of the technology. That said, we believe that investors should be cognizant that while BARDA is seeking to develop a pipeline of technology platforms to address unmet public health medical countermeasures, their actions thus far appear to be focused on seeding initial development work. The bar for advancing any of these technologies into the more significant funding commitments in their contracts appears to be quite high, and more often than not, has not occurred under other BARDA contracts.

The Company has now entered the first phase of the contract, which provides a guaranteed \$4.7 MM in funding and has two primary aims. The first objective is to conduct preclinical research that establishes proof of concept for Cytori's cell therapy in the treatment of injuries caused by thermal burns and radiation. The Company has yet to specify if this work will be conducted in non-human primates, although we believe this is likely to be the case. The second is to accelerate Cytori's ongoing development of a next-generation version of the Celution System, which will feature a significant reduction in the size of the device and be more efficient in terms of time and yield of the ADRCs, at a significantly lower cost of goods. Cytori does enter the preclinical task with the advantage of having already achieved success in treating a number of human patients with both radiation related wounds and burn wounds. Should the Company be successful in completing the preclinical objective, they will be positioned to advance into the human clinical phase of the contract, under which they would be eligible to receive up to \$55 MM. This would consist of \$32.6 MM in funding to conduct a pilot study in humans, for the treatment of thermal burns, and \$23.4 MM to develop a next generation treatment device. We expect that BARDA will announce its decision whether to exercise its option to move forward with Cytori into this phase of the contract in mid-2014.

Should the results of the pilot study demonstrate the safety and efficacy of the technology in treating thermal burns, it will then be the FDA's call as to whether this is sufficient evidence to obtain PMA approval. Should the FDA decide that it needs more human data, BARDA could then decide to provide an additional \$45.5 MM to Cytori to conduct a pivotal study.

## OTHER ADRC THERAPY APPLICATIONS

Certain researchers who have access to Cytori's technology have conducted their own independently sponsored patient studies to evaluate the benefit of ADRC therapy in a broad array of applications including stress urinary incontinence, wound healing, fistula repair, burn, facial wasting, liver insufficiency, radiation injury, bone regeneration, kidney disease, spinal disc injury, periodontal disease, vocal cord paralysis. Sales of the device in Japan currently support such research initiatives, including a 40 patient, multi-center, single arm study which commenced last September to evaluate the treatment of patients with peripheral artery disease.

A key area of study in soft tissue has been the use of ADRC therapy in the treatment of patients requiring breast reconstruction after lumpectomy for breast cancer. The majority of patients treated with breast cancer today receive breast conserving therapy, which is a treatment modality that involves partial mastectomy surgery that is often followed by radiation therapy with the goal of preserving as much native tissue as possible. The partial mastectomy focuses on removing tissue in the target area affected by cancer plus some surrounding tissue for a margin of safety. Although the goal is to protect as much of the patient's own tissue as possible, the procedure can create a deformity that can be extremely difficult to repair. Breast implants do not generally address these defects, and other surgical options can be traumatic and require prolonged hospitalization.

Cytori has completed a 71 patient European clinical study using ADRCs in partial mastectomy patients. RESTORE 2 was a single arm, 71 patient study designed to evaluate the safety and efficacy of transplanting ADRC-enriched autologous fat tissue into and around breast deformities to restore their natural look and feel. The study enrolled patients who had surgical or endoscopic segmental mastectomy or quadrantectomy (lumpectomy) and who were recurrence free. Data at 12 month follow-up demonstrated physician satisfaction with the procedure of 85% (57/67) and patient satisfaction of 75% (50/67), which was consistent with reported six month results. Physician and patient satisfaction criteria encompassed functional and cosmetic outcomes, namely breast deformity, breast symmetry, appearance of scarring, and skin pigmentation. Full 12 month results were published in the peer-reviewed European Journal of Surgical Oncology in March 2012. In July 2010, the Celution System received expanded indications for use under the CE Mark to include breast reconstruction. However, commercial sales thus far for this procedure have been hindered by a lack of reimbursement.

## INVESTMENT RISKS

Investors should be aware of several events or factors that could adversely impact the Company's financial performance and valuation. These risks include:

### **Cell therapeutics is largely unproven and may never lead to marketable products that are commercially successful.**

The scientific evidence to support the feasibility of developing cell based therapies facilitated by the Company's medical device technology is limited at this time. While the Company's PRECISE and APOLLO were well designed, randomized, placebo-controlled, double-blinded studies, they involved small numbers of patients with cardiovascular disease. Cytori's RESTORE 2 trial of soft tissue breast deformities was only a single arm study. The remaining investigator led studies, while interesting, provide only a low level of clinical evidence. ADRC therapies facilitated by the Celution System in the U.S. will require additional clinical testing and regulatory review and/or approvals or clearances before marketing. As ADRC therapy advances in U.S. clinical trials, it may not prove to be a safe and effective treatment for the diseases for which it is being evaluated.

### **Funding under the BARDA agreement may not advance beyond the base phase.**

In September 2012, Cytori entered into a contract with the U.S. Health and Human Service's Biomedical Advanced Research Authority (BARDA) for up to \$106 MM in funding to develop Cytori's cell therapy as a treatment for thermal burns combined with radiation injury. However, only a small portion of this amount is guaranteed. The Company has now entered the first phase of the contract, which provides a guaranteed \$4.7 MM in funding. In order to secure the larger amounts of funding under the agreement, BARDA must exercise a number of option agreements to go forward. There is no assurance that BARDA will choose to do so.

### **Heavily dependent on the successful development and commercialization of ADRC therapy.**

Cytori is heavily dependent upon the successful development of new indications for use of ADRC therapy facilitated by its Celution System. Any adverse development relating to products, such as failure to achieve the primary endpoint in its pilot and pivotal studies for cardiovascular and soft tissue applications, failure to obtain FDA approval in a timely manner based on the results from pivotal studies, or if approved, failure to meet current expectations regarding the commercial success of ADRCs in the treatment of these indications, due to a lack of widespread reimbursement, or for other reasons, could substantially depress the stock price and prevent the company from raising additional capital.

#### **The Company May Need to Raise Debt or Equity Funds in the Future**

Cytori has experienced significant operating losses since its inception. As of December 31, 2012, we estimate that the Company had an accumulated deficit of \$271 MM. We expect the Company to generate only modest product revenue for the next several years. The company is expected to continue to incur annual net operating losses over the next several years and will likely need additional funds to support the clinical evaluation and commercialization of its cell therapy product. The Company had approximately \$26 MM in cash at the end of 2012 after raising approximately \$18.5 MM via the issuance of common shares in December 2012. It has outstanding debt of \$25 MM, which is due in 2015. It expects that it will cost approximately \$3-5 MM to conduct its ATHENA pilot study in chronic ischemic heart disease, and we estimate that it will cost another \$20-\$25 MM to conduct a pivotal study. Additional cash will be required to fund other planned studies in acute MI patients. Any additional equity financing may be dilutive to stockholders, and additional debt financing, if available, may involve restrictive covenants. External financing, depending on the financial environment, could be particularly difficult, and the source, timing and availability of any future fundraising will depend principally upon market conditions, and, more specifically, on the Company's progress in its clinical development programs. Funding may not be available when needed at all or on acceptable terms.

#### **The Company Faces Significant Competition**

There are a number of companies that are actively developing stem cell products, which encompass a range of different cell types, including embryonic stem cells, umbilical cord stem cells, placenta derived stem cells, adult-derived stem cells, and processed bone marrow derived cells. Other public companies are developing stem-related therapies, including Aastrom, Athersys, Baxter International, Mesoblast Limited, Neostem, Neuralstem, Osiris Therapeutics, Pluristem Therapeutics, and StemCells. Given the magnitude of the potential opportunity for cell therapy, competition in this area could intensify in the coming years.

The above factors represent only some of the risks associated with investing in Cytori. For a complete list, investors should refer to the Company's most recent 10-K and 10-Q filings.

## **MANAGEMENT**

#### **CEO – Christopher J. Calhoun**

Mr. Calhoun is a co-founder of Cytori Therapeutics and has served as the Company's Chief Executive Officer, Vice-Chairman and Director of the Board since 1997. He previously served as President from 1996 through 1998. Mr. Calhoun was also involved in research and management for the Plastic Surgery Bone Histology and Histometry Laboratory at the University of California, San Diego. Mr. Calhoun is a co-founder and Chairman of the Board of Leonardo MD, and has previously served on the Board of Directors of StemSource, Inc. Mr. Calhoun received a B.A. from the University of California, San Diego and an M.B.A. from the University of Phoenix.

#### **President - Marc H. Hedrick M.D.**

Dr. Hedrick was appointed President in May 2004. Dr. Hedrick joined Cytori Therapeutics as Chief Scientific Officer, Medical Director and Director in October 2002. Previously, Dr. Hedrick co-founded and served as President and Chief Executive Officer of StemSource, Inc., a company specializing in stem cell research and development. Dr. Hedrick, a plastic surgeon by training, is a former Associate Professor of Surgery and Pediatrics at the University of California, Los Angeles (UCLA). From 1998 until 2005, Dr.

Hedrick directed the Laboratory of Regenerative Bioengineering and Repair for the Department of Surgery at UCLA. Dr. Hedrick obtained his M.D. from the University of Texas Southwestern Medical School, Dallas and an MBA from UCLA in 2005.

#### **Chief Financial Officer - Mark E. Saad**

Mr. Saad joined Cytori Therapeutics as Chief Financial Officer in June 2004. Previously, Mr. Saad served as Chief Operating Officer of UBS, Healthcare Investment Banking, New York, where he was responsible for global investment banking operations. Upon joining UBS, Mr. Saad served as Executive Director covering life sciences sectors - biotechnology and medical devices. Prior to joining UBS, Mr. Saad held the position of Financial Analyst/Associate with Salomon, Smith Barney, Healthcare Investment Banking, New York, where he managed public and private transactions. Mr. Saad holds a B.A. from Villanova University, Philadelphia, PA.

*Source for Management Biographies - Cytori 10-K filing*

## **FINANCIALS**

Cytori currently generates modest revenue from sales of its products. While sales are expected to increase, the rate of growth in the near-term will be constrained due to the fact that the approved indications for use of these products are not widely reimbursed at this time. As such, we expect the Company to be in a net loss position for several more years. We would not expect the Company to commercialize use of its Celution System in the U.S for the treatment of refractory heart failure, or thermal burn, until 2018. We believe that the Company will need a significant amount of additional cash to fund its research and product development programs, regulatory processes, clinical testing, sales and marketing infrastructure and programs. The Company had approximately \$26 MM in cash at the end of 2012, which includes approximately \$18.5 MM raised in the equity offering in December. It has outstanding debt of \$25 MM, which is due in 2015. The Company expects that it will cost about \$3-\$5 MM to conduct its ATHENA pilot study, while we estimate it could cost another \$20-\$25 MM to conduct a pivotal study for refractory heart failure.

For 2013, we are projecting a net loss of (\$36) MM or GAAP EPS of (\$0.50). We assume that revenue from product sales increase 37% to \$11.3 MM. We expect R&D expense to increase \$2.2 MM to support multiple clinical trials. We assume this increase in operating expense will be offset by revenue received under the BARDA agreement of \$3.5 MM.

For 2014, we are projecting a net loss of (\$37) MM or GAAP EPS of (\$0.44). We assume that revenue from product sales increase 7% to \$12.1 MM. We expect R&D expense to increase significantly by \$4.1 MM to support multiple clinical trials. Again, we assume this increase in operating expense will be offset by revenue received under the BARDA agreement of \$6.1 MM.

## **VALUATION**

Over the past 12 months, the stock price of CYTX has decreased 23% to the current \$2.70. While Cytori generates some revenue today, the larger opportunities for Cytori are still in development, and thus accurate valuation is more complex and requires a number of forward assumptions, which at best are inexact. We have used an NPV analysis to establish our 12-month price target of \$3.25. Our analysis considers future estimated revenue from Celution System sales out to 2023. We apply a further haircut adjustment of 40% to these future cash flows to capture the uncertainty associated with the fact that the applications for ischemic heart disease and thermal burns must still be proven in pilot and pivotal studies. We use a WACC of 12% as our discount rate. Finally we assume a fully diluted share count of 110 MM. As we stated above, if ATHENA is successful, or BARDA exercises its option to proceed into human clinical trials, we believe that the stock will trade much higher than its current price, and if either of these events fail to happen, we would expect the stock to experience a significant decline. We anticipate that these will be 2014 events.



## OTHER COMPANIES MENTIONED IN THE REPORT

Osiris Therapeutics (OSIR - \$8.02- Not Rated)  
StemCells (STEM - \$1.66 - Strong Buy)  
Athersys - (ATHX - \$1.66 - Not Rated)  
Pluristem Therapeutics – (PSTI - \$3.21 - Not Rated)  
Baxter International (BAX - \$68.53 - Not Rated)  
Aastrom (ASTM - \$2.37 – Strong Buy)  
Mesoblast Limited (MSB.AX - \$35.12 – Not Rated)  
Neostem - (NBS - \$0.66 - Not Rated)  
Neuralstem - (CUR - \$1.25 - Not Rated)

Cytori Therapeutics Inc. Income Statement (in millions)	FY 2011					FY 2012					FY 2013					FY 2014				
	Q1	Q2	Q3	Q4	YE	Q1	Q2	Q3	Q4E	YE	Q1E	Q2E	Q3E	Q4E	YE	Q1E	Q2E	Q3E	Q4E	YE
Total Revenue	2.6	2.4	2.1	2.8	10.0	1.5	4.4	1.3	4.3	11.5	3.5	3.5	3.6	4.3	14.9	4.1	3.0	4.9	6.2	18.2
Revenue from Product Sales	1.4	2.4	2.1	2.1	8.0	1.5	1.9	1.3	4.2	8.9	3.0	2.6	2.6	3.2	11.4	3.2	2.8	2.9	3.2	12.1
Cost of revenue	0.8	1.1	0.9	0.9	3.8	0.9	1.0	0.7	2.1	4.7	1.5	1.3	1.3	1.6	5.7	1.6	1.4	1.4	1.6	6.1
Gross profit	0.5	1.3	1.2	1.1	4.1	0.6	0.9	0.6	2.1	4.3	1.5	1.3	1.3	1.6	5.7	1.6	1.4	1.4	1.6	6.1
Research and development	3.0	3.1	2.8	2.0	10.9	2.8	3.2	3.6	3.8	13.4	3.9	3.9	3.9	3.9	15.6	3.9	3.9	5.5	6.4	19.7
Selling and Marketing	3.2	3.7	3.6	3.0	13.6	2.4	2.6	2.5	2.7	10.1	2.4	2.6	2.5	2.8	10.3	2.5	2.7	2.5	2.8	10.5
General and Administrative	3.5	4.1	3.5	3.5	14.7	3.9	3.8	3.8	3.8	15.3	4.0	3.9	3.9	3.9	15.6	4.1	3.9	3.9	4.0	15.9
Change in fair value of warrants	3.5	(5.6)	(1.5)	(0.6)	(4.4)	0.1	0.3	0.9	-	1.2	-	-	-	-	-	-	-	-	-	-
Change in fair value of options	(0.3)	0.4	0.6	0.1	-	(0.3)	0.5	0.3	-	-	-	-	-	-	-	-	-	-	-	-
Operating expenses	13.0	5.7	9.0	7.9	35.6	9.0	10.3	10.9	10.3	40.5	10.3	10.4	10.3	10.5	41.5	10.5	10.5	12.0	13.2	46.1
Operating income	(11.2)	(4.4)	(7.8)	(6.0)	(29.4)	(8.4)	(7.0)	(10.3)	(8.1)	(33.8)	(8.3)	(8.2)	(7.9)	(7.9)	(32.3)	(8.0)	(8.9)	(8.5)	(8.5)	(34.0)
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Interest expense	(0.7)	(0.7)	(0.5)	(0.9)	(2.8)	(0.9)	(0.9)	(0.9)	(0.9)	(3.4)	(0.9)	(0.9)	(0.9)	(0.9)	(3.4)	(0.9)	(0.9)	(0.9)	(0.9)	(3.4)
Other income (expense)	(0.0)	(0.0)	0.0	(0.0)	(0.1)	(0.0)	(0.0)	(0.0)	-	(0.1)	-	-	-	-	-	-	-	-	-	-
Equity loss in investments	(0.0)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.0)	(0.0)	-	(0.1)	-	-	-	-	-	-	-	-	-	-
Income (loss) before taxes & extraordinary items	(12.1)	(5.1)	(8.3)	(6.9)	(32.5)	(9.3)	(7.9)	(11.2)	(8.9)	(37.4)	(9.2)	(9.0)	(8.8)	(8.7)	(35.7)	(8.8)	(9.8)	(9.4)	(9.4)	(37.3)
Income tax expense	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Effective tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net Income (Loss)	(12.1)	(5.1)	(8.3)	(6.9)	(32.5)	(9.3)	(7.9)	(11.2)	(8.9)	(37.4)	(9.2)	(9.0)	(8.8)	(8.7)	(35.7)	(8.8)	(9.8)	(9.4)	(9.4)	(37.3)
Basic earnings (losses) per share: Net earnings (losses)	(0.23)	(0.10)	(0.15)	(0.12)	(0.60)	(0.16)	(0.13)	(0.19)	(0.15)	(0.64)	(0.14)	(0.14)	(0.11)	(0.11)	(0.50)	(0.11)	(0.13)	(0.10)	(0.10)	(0.44)
Diluted earnings (losses) per share: Net earnings (losses)	(0.23)	(0.10)	(0.15)	(0.12)	(0.60)	(0.16)	(0.13)	(0.19)	(0.15)	(0.64)	(0.14)	(0.14)	(0.11)	(0.11)	(0.50)	(0.11)	(0.13)	(0.10)	(0.10)	(0.44)
Weighted average shares outstanding: Basic	52.0	52.4	53.9	55.7	53.5	57.5	58.7	58.7	59.9	58.7	66.7	66.8	77.9	77.9	72.3	77.9	77.9	92.7	92.7	85.3
Diluted	70.2	70.6	72.1	73.9	71.7	75.7	76.9	76.9	78.1	76.9	84.9	85.0	96.1	96.1	90.5	96.1	96.1	110.9	110.9	103.5
EBITDAS	(10.2)	(3.3)	(6.7)	(5.0)	(25.2)	(7.2)	(5.7)	(9.1)	(6.9)	(29.0)	(7.2)	(7.0)	(6.7)	(6.7)	(27.6)	(6.8)	(7.7)	(7.3)	(7.4)	(29.2)
<b>Margin analysis (percentage of sales)</b>																				
Cost of goods sold	61.8%	46.0%	44.1%	45.5%	48%	57.6%	53.0%	53.5%	50.0%	52.4%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Gross profit on Product Sales	38.2%	54.0%	55.9%	54.5%	52%	42.4%	47.0%	46.5%	50.0%	47.6%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Research and development	223.7%	127.4%	132.6%	94.2%	136%	191.5%	165.6%	270.5%	270.5%	88.1%	131.7%	148.4%	148.4%	123.8%	69.3%	123.1%	137.4%	190.3%	197.3%	57.6%
Selling and Marketing	236.9%	154.1%	169.5%	144.5%	147%	160.4%	132.6%	186.5%	186.5%	133.2%	81.8%	100.2%	95.1%	87.4%	104.9%	78.0%	94.6%	88.2%	86.6%	87.2%
General and Administrative	260.2%	172.0%	165.6%	168.5%	-44%	265.0%	194.6%	287.4%	287.4%	10.8%	135.1%	147.0%	146.6%	123.0%	0.0%	128.8%	138.9%	135.9%	121.9%	0.0%
Operating expenses	954.3%	235.8%	422.7%	379.0%	0%	607.4%	529.2%	833.0%	245.2%	0.0%	348.6%	395.6%	390.1%	334.3%	0.0%	329.9%	370.9%	414.4%	405.7%	0.0%
Operating income	-825.5%	-181.3%	-366.6%	-287.8%	356%	-564.8%	-357.5%	-786.5%	-192.9%	353.3%	-281.7%	-311.4%	-302.0%	-249.4%	279.1%	-251.5%	-313.8%	-295.2%	-263.2%	252.8%
Net Income (Loss)	-886.3%	-213.1%	-390.6%	-332.7%	0%	-629.6%	-404.9%	-856.0%	-212.8%	0.0%	-310.1%	-343.5%	-334.4%	-275.9%	0.0%	-278.0%	-343.6%	-324.6%	-288.8%	0.0%

**FINANCIAL MODEL**

<b>Cytori Therapeutics Inc.</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>Balance Sheet (in millions)</b>	<b>YE</b>	<b>YE</b>	<b>YE</b>	<b>YE</b>
<b>ASSETS</b>				
Current Assets:				
Cash and cash equivalents	37	26	26	34
Short-term investments				
Accounts Receivable	2	1	1	1
Inventories	3	3	3	3
Other current assets	1	1	1	1
<i>Total current assets</i>	<b>43</b>	<b>32</b>	<b>32</b>	<b>40</b>
Property and equipment-net	2	2	2	2
Restricted cash and cash equivalents	0	0	0	0
Investment in joint venture	0	0	-	-
Other assets	2	2	2	2
Intangibles, net	0	0	0	0
Goodwill	4	4	4	4
<b>Total Assets</b>	<b>52</b>	<b>41</b>	<b>41</b>	<b>48</b>
<b>LIABILITIES &amp; STOCKHOLDERS' EQUITY</b>				
Current Liabilities:				
Accounts payable	5	6	6	6
Accrued liabilities	-	-	-	-
Current portion of long term obligations	2	12	10	-
<b>Total current liabilities</b>	<b>8</b>	<b>18</b>	<b>15</b>	<b>6</b>
Long Term Liabilities:				
Deferred revenues, related party	4	1	1	1
Deferred revenues	5	5	5	5
Warrant liability	1	2	2	2
Option liability	2	2	2	2
Long-term deferred rent	1	1	1	1
Long-term obligations, less current portion	22	-	-	-
<b>Total Liabilities</b>	<b>42</b>	<b>29</b>	<b>26</b>	<b>17</b>
<b>STOCKHOLDERS' EQUITY</b>				
Preferred stock				
Common stock	0	0	0	0
Additional paid-in capital	252	292	330	384
Accumulated deficit	(242)	(280)	(316)	(353)
Treasury stock, at cost				
<b>Total Stockholders' Equity</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>31</b>
<b>Total Liabilities &amp; Stockholders' Equity</b>	<b>52</b>	<b>41</b>	<b>41</b>	<b>48</b>



<i>Cytori Therapeutics Inc.</i>	2010	2011	2012
<b>Cash Flow Statement (in millions)</b>	<b>YE</b>	<b>YE</b>	<b>YE</b>
<b>OPERATING CASH FLOWS</b>			
Net loss	-27	-32	-37
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	1	1	1
Amortization of deferred financing cost	1	1	1
Warranty provision	0	0	0
Provision for doubtful accounts	0	0	0
Change in fair value of warrants	-1	-4	1
Change in fair value of options liabilities	0	1	0
Share-based compensation expense	3	3	4
Equity loss from investment in joint venture	0	0	0
Changes in assets and liabilities:			
Accounts receivable	-1	-1	0
Inventories	-1	0	0
Other current assets	0	0	0
Other assets	0	-1	0
Accounts payable and accrued expenses	1	-1	0
Deferred revenues, related party	-2	-2	-2
Deferred revenues	3	0	0
Long-term deferred rent	0	0	0
<b>Net cash provided by (used in) operating activities</b>	<b>-24</b>	<b>-35</b>	<b>-33</b>
<b>INVESTING CASH FLOWS</b>			
Cash invested in restricted cash	0	0	0
Investment in joint venture	0	0	0
Property and equipment purchases	-1	-1	-2
<b>Net cash provided by (used in) investing activities</b>	<b>-1</b>	<b>-1</b>	<b>-2</b>
<b>FINANCING CASH FLOWS</b>			
Principal payments on long-term obligations	-5	-5	0
Proceeds from long-term obligations	20	9	0
Debt issuance costs and loan fees	-1	-1	0
Proceeds from exercise of stock options	7	3	1
Proceeds from issuance of common stock	45	13	25
Costs related to sale of common stock	-2	0	-2
Proceeds from issuance of treasury stock	0	0	0
<b>Net cash provided by (used in) financing activities</b>	<b>65</b>	<b>20</b>	<b>24</b>
Effect of exchange rate changes on cash	0	0	0
<b>Net increase (decrease) in cash &amp; cash equivalents</b>	<b>40</b>	<b>-16</b>	<b>-11</b>
Cash & cash equivalents, beginning	13	53	37
<b>Cash &amp; cash equivalents, end</b>	<b>53</b>	<b>37</b>	<b>26</b>

## ANALYST CERTIFICATION

Each analyst hereby certifies that the views expressed in this report reflect the analyst's personal views about the subject securities or issuers. Each analyst also certifies that no part of the analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report. The analyst who prepared this report is compensated based upon the overall profitability of Ascendant Capital Markets, LLC, which may, from time to time, include the provision of investment banking, financial advisory and consulting services. Compensation for research is based on effectiveness in generating new ideas for clients, performance of recommendations, accuracy of earnings estimates, and service to clients.

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## Risks & Considerations

Risks to attainment of our share price target include failure of product candidates to demonstrate safety and efficacy in clinical trials, failure of product candidates to gain regulatory approval for commercial sale, failure to obtain suitable reimbursement, competition from similar products, and weaker macroeconomic factors.

## Ascendant Capital Markets, LLC Rating System

- Strong Buy:** We expect the stock to provide a total return of 30% or more within a 12-month period.
- Buy:** We expect the stock to provide a total return of between 10% and 30% within a 12-month period.
- Neutral:** We expect the stock to provide a total return of between minus 10% and plus 10% within a 12-month period.
- Sell:** We expect the stock to provide a total return of minus 10% or worse within a 12-month period.

**Speculative Buy:** This rating is reserved for companies we believe have tremendous potential, but whose stocks are illiquid or whose equity market capitalizations are very small, often in the definition of a nano cap (below \$50 million in market cap). In general, for stocks ranked in this category, we expect the stock to provide a total return of 50% or more within a 12-month period. However, because of the illiquid nature of the stock's trading and/or the nano cap nature of the investment, we caution that these investments may not be suitable for all parties.

Total return is defined as price appreciation plus dividend yield.

#### Ascendant Capital Markets, LLC Distribution of Investment Ratings (as of February 18, 2013)

Rating	Count	Percent	Investment Banking Services Past 12 months	
			Count	Percent
Strong Buy	9	28%	1	11%
Buy	16	50%	1	6%
Neutral	6	19%	1	17%
Sell	1	3%	0	0%
Total	32	100%	3	9%

#### Other Important Disclosures

Our analysts use various valuation methodologies including discounted cash flow, price/earnings (P/E), enterprise value/EBITDAS, and P/E to growth rate, among others. Risks to our price targets include failure to achieve financial results, product risk, regulatory risk, general market conditions, and the risk of a change in economic conditions.

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