

Equity Research

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Heat Biologics, Inc. (HTBX-\$12.60)

Rating: BUY

Target Price: \$18.00

Right on Time - IND Filed as Expected - Raising Price Target to \$18 from \$15

<u>EPS</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>
2012A	(0.47)A	(0.06)A	(0.51)A	(0.39)A
2013E	(1.66)A	(0.92)A	(0.14)E	(0.16)E
2014E	(0.26)E	(0.35)E	(0.41)E	(0.40)E
<u>REV</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>
2012A	0.0A	0.0A	0.0A	0.0A
2013E	0.0A	0.0A	0.0E	0.0E
2014E	0.0E	0.0E	0.0E	0.0E
<u>FY</u>	<u>2012A</u>	<u>2013E</u>	<u>2014E</u>	
EPS	(3.03)A	(1.65)E	(1.42)E	
REV	0.0A	0.0E	0.0E	

- **IND Filed for HS-410.** Heat Biologics ("Heat") filed an IND with the FDA to begin Phase I testing of HS-410 for the treatment of superficial bladder cancer. With the IND filing in place, we expect that the company will begin a trial with this program by the end of 2013. Based on our thesis of advancing clinical candidates and accretive value to the shares, we are raising our price target to \$18 from \$15.
- **New Clinical and Regulatory Head Named.** Heat also disclosed the hiring of a new full-time head of Clinical and Regulatory Affairs, which has been expected since the departure of the prior part-time Vice President of Clinical and Regulatory Affairs last month. The new hire, Melissa Price, Ph.D., brings significant clinical trial experience to the company, having held positions with several contract research organizations (CROs), including INC Research and Quintiles.
- **Clinical Catalysts are Valuation Drivers.** We expect the Phase II HS-110 NSCLC study and the Phase I HS-110 superficial bladder study to begin in 4Q:13. As the HS-110 study will be a two-stage design, the first stage could read out within 9-12 months of initiation, providing a potential catalyst for the shares. We believe the superficial bladder cancer study should also provide catalysts within the next 12-24 months.
- **Cash Runway into 2015.** Following the company's initial public offering in July 2013, we believe Heat should have sufficient capital to fund clinical development into 2015. The company, we believe, has roughly \$25 million, and this also suggests enough cash to bring another clinical candidate forward. Our current financial model assumes additional equity offerings through 2018.
- **Valuation Expansion Based on Clinical Trial Progress -** We believe shares of Heat will benefit from the advancement of clinical trials and news flow regarding such progress. We have raised our price target to \$18 from \$15, which reflects a 50% rise in enterprise value (EV), which would still place the shares at a discount to several peer groups, including therapeutic (cancer immunotherapy/vaccine companies), stage of development (Phase II), and other recent IPOs. Our rating remains BUY.

Current Statistics

Market Cap (\$Mil)	\$78.1
Avg. Daily Trading Volume (3 mo.):	NA
Shares Out (Mil):	6.195
52 Wk. Range	\$13.50-\$9.01

Summary

Heat Biologics is a development stage company with a proof-of-concept study in non-small cell lung cancer (NSCLC) about to get underway. The company is working in the evolving field of therapeutic cancer vaccines with a unique approach that seeks to harness the immune-provoking activity of the gp96 heat shock protein (HSP). This approach could offer broad cancer antigen coverage in a cost effective manner relative to other approaches in the field today. While the company is at an earlier stage of development versus others in the field, and this is reflected in the current valuation, we see opportunity for expansion based on clinical progress, which we think is likely. The company's technology is unique and has broad potential, in our opinion, and there is an actionable milestone catalyst calendar through 2015. We like Heat for its:

- **Broad Antigen Coverage Technology** – Heat Biologics' vaccines utilize Immune Pan Antigen Cytotoxic Therapy (*ImPACT*) technology, which is a method of engineering allogeneic (not originating from the patient) "off the shelf" tumor cells to secrete antigens that stimulate the immune system. The technology allows the immune system to identify a variety of tumor-specific antigens, increasing the likelihood that tumor cells will be recognized and killed.
- **Actionable Milestones Within the Next 24 Months** – We expect Heat Biologics to begin clinical studies evaluating HS-110 and HS-410 in NSCLC and bladder cancer, respectively, by the end of 2013. While both studies are expected to be completed by late 2015/early 2016, they consist of multiple parts that provide interim data over the duration of the studies. The studies could therefore provide multiple catalysts for valuation expansion.
- **Targeting Areas of Unmet Need** – Heat Biologics will focus development on NSCLC and bladder cancer in the near term. We believe that the field of immunotherapy in cancer has evolved, learning from prior clinical failures that trials in the sickest of patients, with the highest of disease burdens, may be the least likely to derive benefit from treatment. Hence, in both NSCLC and bladder cancer, Heat Biologics is evaluating HS-110 and HS-410 in patients that have finished systemic treatment and presumably have a lower burden of disease.
- **Applications Outside of Cancer** – Heat's *ImPACT* technology stimulates a cytotoxic T-cell response, and this suggests potential utility in infectious diseases such as HIV. Early feasibility studies have been conducted, though this is not a focus for the company at this time.

Valuation

In valuing Heat, we looked at a comparative analysis of enterprise value versus several peer groups (recent IPOs, similar stage of development, cancer vaccine developers and recent IPOs). Heat is currently valued at a steep discount to all of the peer groups. Heat trades at a significant discount to peers; cancer immunotherapy companies, companies with Phase II assets, and recent IPOs. This discount could be a function of dependence on a single technology (*ImPACT*) or earlier stage of development versus immunotherapy peers. But we also believe that as Heat's candidates advance into clinical trials, greater value will accrue to the shares. Typical biotech valuations for Phase II candidates are in the \$150-250 million range and \$100 million for Phase I assets. Based on Heat's Phase II ready HS-110 and Phase I/II ready HS-410 programs, we believe the shares could have compelling upside.

On the basis of advancing milestones, we think the company's EV could expand and drive share price gains. Based on enterprise value expansion observed for peer companies of upwards of 50%, we think the same can be experienced by Heat Biologics. On that basis, we believe Heat shares could experience valuation expansion to \$18 based on the advancement of candidates in clinical trials.

Exhibit 1: Peer Valuation Analysis

Sub Sector	Company	Ticker	Price	S/O	Mkt Cap	Pfd Shares	Min Int.	Debt	Cash	EV	HTBX Premium (Discount)
Cancer Vaccine Developers	Advaxis	ADXSD	\$5.60	5.54	\$31.00	\$0.00	\$0.00	\$3.57	\$0.00	34.57	112.8%
	Agenus	AGEN	2.77	31.97	88.55	0.00	0.00	9.23	13.44	84.33	(12.8%)
	Celldex Therapeutics	CLDX	35.4	80.99	2,869.4	0.00	0.00	0.44	154.98	2,714.86	(97.3%)
	Galena Biopharma	GALE	2.28	102.26	233.16	0.00	0.00	9.74	26.81	216.10	(66.0%)
	Immunocellular	IMUC	2.57	54.60	140.31	0.00	0.00	0.00	25.45	114.86	(36.0%)
	Inovio	INO	2.07	189.90	393.10	0.00	0.47	0.00	23.46	370.11	(80.1%)
	Newlink Genetics	NLNK	18.78	25.70	482.66	0.00	0.00	7.32	59.29	430.69	(82.9%)
	Oncothyreon	ONTY	2.06	63.46	130.74	0.03	0.00	0.00	51.01	79.76	(7.8%)
	Average									505.66	(85.5%)
Phase II Development Stage	Clovis	CLVS	\$60.80	30.2	\$1,834.40	\$0.00	\$0.00	\$0.00	\$372.24	1,462.16	(95.0%)
	Cytrx	CYTR	3.23	30.49	98.48	0.00	0.00	0.00	27.98	70.50	4.3%
	Epizyme	EPZM	40.00	28.42	1,136.7	0.00	0.00	0.00	148.69	987.99	(92.6%)
	Infinity Pharma	INFI	17.43	47.98	836.34	0.00	0.00	0.00	276.68	559.66	(86.9%)
	Oncomed	OMED	15.31	27.83	426.08	182.77	0.00	0.33	56.46	552.71	(86.7%)
	Oncosec	ONCS	0.24	119.15	28.71	0.00	0.00	0.00	4.97	23.74	209.7%
	Verastem	VSTM	12.45	25.59	318.65	0.00	0.00	0.00	57.45	261.19	(71.8%)
	Coronado Biosciences	CNDO	7.01	33.94	237.98	0.00	0.00	14.77	67.89	184.86	(60.2%)
	Progenics	PGNX	5.02	60.82	305.34	0.00	0.00	0.00	79.22	226.12	(67.5%)
	Average									480.99	(84.7%)
Recent IPOs	Tesaro Inc.	TSRO	\$38.74	32.62	1,263.70	0.00	0.00	0.00	178.09	1,085.61	(93.2%)
	Epizyme	EPZM	40.00	28.42	1,136.7	0.00	0.00	0.00	148.69	987.99	(92.6%)
	BlueBird Bio	BLUE	26.96	23.72	639.52	0.00	0.00	0.00	228.85	410.67	(82.1%)
	Merrimack Pharmaceuticals	MACK	3.79	102.21	387.38	0.00	(0.24)	40.56	62.24	365.46	(79.9%)
	Intercept Pharmaceuticals	ICPT	69.03	19.18	1,324.06	0.00	0.00	0.00	161.80	1,162.27	(93.7%)
	ChemoCentryx	CCXI	5.56	42.84	238.17	0.00	0.00	0.62	129.77	109.02	(32.5%)
	Regulus Therapeutics	RGLS	9.43	41.33	389.75	0.00	0.00	14.59	82.72	321.63	(77.1%)
	Receptos	RCPT	25.97	18.34	476.24	0.00	0.00	4.82	91.15	389.92	(81.1%)
	Stemline Therapeutics	STML	45.30	12.54	567.97	0.00	0.00	0.00	92.69	475.28	(84.5%)
	Enanta Pharmaceuticals	ENTA	22.92	17.91	410.54	0.00	0.00	0.00	94.55	316.00	(76.7%)
	Average									\$562.38	(86.9%)
	Heat Biologics*	HTBX	\$12.44	6.20	77.07	0.08	(0.10)	1.39	4.89	73.54	(85.7%)

* Represents average discount of the three peer groups

Source: FactSet, Company data, Cantor Fitzgerald research

Risks

Heat Biologics is a development stage company and investment is subject to risk. These risks include but are not limited to:

- HS-110 could fail to show an efficacy improvement in its Phase II study in NSCLC. The company uses an off-the-shelf supply of tumor cells and it is unclear whether or not these cells can stimulate an immune response against the patient's own tumor.
- HS-110 could also demonstrate a poor safety profile. HS-110 may secrete antigens that stimulate an immune response against normal cells.
- Heat may be unable to secure additional financing. We believe that the company has sufficient cash to fund development of HS-110 and HS-410 through initial stages of development, and additional fund raising may be dependent upon a positive clinical outcome from clinical trials.
- The clinical landscape is crowded with hundreds of oncology clinical trials, especially in NSCLC. It is possible that other technologies show greater benefit to patients than Heat's product candidates, thus rendering potential products obsolete or non-competitive.
- Heat will be switching the manufacturing process from the University of Miami to Lonza between the second and third portions of the Phase II trial evaluating HS-110 in NSCL. However, we cannot exclude the possibility that the switch may not be seamless.

Exhibit 2: Annual Sales and Earnings
Heat Biologics

<i>All figures in millions</i>	2018E	2017E	2016E	2015E	2014E	2013E
Revenue	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Product Sales	0.00	0.00	0.00	0.00	0.00	0.00
Grants	0.00	0.00	0.00	0.00	0.00	0.00
Cost of Goods Sold	0.00	0.00	0.00	0.00	0.00	0.00
Gross Profit	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<i>Gross Profit Margin</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>
Operating Expenses						
G&A	7.11	6.87	6.29	5.52	4.97	1.58
R&D	13.06	11.26	9.16	7.04	5.82	4.05
Total Operating Expenses	20.17	18.13	15.44	12.56	10.79	5.63
Profit (Loss) from Operations	(\$20.17)	(\$18.13)	(\$15.44)	(\$12.56)	(\$10.79)	(\$5.63)
<i>Operating Profit Margin</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>
Interest Income (Expense)	(\$0.08)	(\$0.06)	(0.13)	(0.12)	(0.12)	(0.12)
Other Income (Expense)	0.03	0.07	0.11	0.10	0.02	0.02
Income (Loss) from Continuing Operations	(\$20.22)	(\$18.12)	(\$15.46)	(\$12.58)	(\$10.89)	(\$5.73)
<i>Pretax Margin</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>
Income Tax Paid (Benefit)	0.00	0.00	0.00	0.00	0.00	0.00
Net Income (Loss)	(\$20.22)	(\$18.12)	(\$15.46)	(\$12.58)	(\$10.89)	(\$5.73)
Non-controlling Interest	(\$1.52)	(\$1.36)	(\$1.16)	(\$0.94)	(\$0.64)	(\$0.32)
Net Income to Heat Biologics	(\$18.71)	(\$16.76)	(\$14.30)	(\$11.64)	(\$10.25)	(\$5.41)
Beneficial Conversion Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	(\$2.30)
Net Attributable to Common Shareholders	(\$18.71)	(\$16.76)	(\$14.30)	(\$11.64)	(\$10.25)	(\$7.71)
<i>Net Margin</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>
Diluted Earnings (Net Loss) Per Share	(\$1.76)	(\$1.96)	(\$1.74)	(\$1.77)	(\$1.63)	(\$2.07)
<i>Shares Outstanding</i>	10.64	8.56	8.23	6.56	6.31	3.72

Source: Heat Biologics, Cantor Fitzgerald research

Exhibit 3: Pipeline and Milestones
Heat Biologics

Candidate	Indication	Description	Phase of Development				Next Event	Timeframe
			PreClinical	Phase I	Phase II	Phase III		
HS-110	NSCLC	Allogenic vaccine consisting of a lung cancer cell line genetically modified to "pump-out" cancer antigens bound to gp96, a heat shock protein					Initiate Phase II study	4Q:13
HS-410	Bladder Cancer Adjuvant	Allogenic vaccine consisting of a bladder cancer cell line genetically modified to "pump-out" cancer antigens bound to gp96, a heat shock protein					Initiate Phase I/II study (IND filed 10/1/13)	4Q:13
HS-310	Ovarian Cancer	Allogenic vaccine consisting of an ovarian cancer cell line genetically modified to "pump-out" cancer antigens bound to gp96, a heat shock protein					Initiate Phase I/II study	2014
HS-510	Triple Negative Breast Cancer	Allogenic vaccine consisting of a breast cancer cell line genetically modified to "pump-out" cancer antigens bound to gp96, a heat shock protein					Initiate Phase I/II study	2014

Source: Heat Biologics, Cantor Fitzgerald research

Exhibit 4: Select Biotechnology Stocks (all market capitalization ranges)

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Mkt Cap. Range	Company (a)	Ticker	Rating	Price 9/30/13	Market Cap. (mil)	52-Week		Performance			Earnings Per Share (b)			Revenue Per Share (b)			Per Share Cash (b)	EV (b) (mil)	Short Interest
						High	Low	YTD	QTD	1-Year	2012A	2013E	2014E	2012A	2013E	2014E			
Small Cap	Agenus	AGEN	NC	\$2.77	\$88.5	\$5.40	\$2.45	-34.7%	0.4%	-39.9%	(\$0.51)	(\$1.28)	(\$0.76)	\$0.50	\$0.11	\$0.22	\$0.42	\$84.3	1,387,055
	Agius Pharmaceuticals	AGIO	NC	27.96	868.8	33.45	22.34	55.3%	-2.2%	NA	(1.11)	(1.28)	(1.02)	0.81	0.81	1.11	3.19	885.5	852,928
	Ambit	AMBI	NC	15.50	277.1	17.11	6.22	93.8%	1.9%	NA	(16.59)	(1.15)	(1.82)	0.99	1.33	0.31	4.77	193.6	15,830
	Cleveland BioLabs	CBLI	BUY	1.57	70.7	2.76	1.23	16.3%	-1.3%	-41.4%	(0.69)	(0.51)	(0.52)	0.08	0.15	0.26	0.30	69.4	1,968,158
	Curis	CRIS	NC	4.46	364.4	4.63	2.66	21.9%	-0.1%	7.7%	(0.21)	(0.16)	(0.26)	0.21	0.18	0.21	0.70	337.6	5,739,204
	Cyclacel	CYCC	NC	4.26	75.5	8.18	2.75	-29.0%	3.4%	-8.6%	(1.68)	(1.50)	(1.42)	0.00	0.03	0.00	1.90	41.8	889,249
	Endocyte	ECYT	NC	13.33	480.5	19.00	7.50	40.3%	-2.9%	33.7%	(0.48)	(0.75)	(0.50)	0.96	1.73	2.11	3.07	369.8	2,779,906
	Galena Biopharma	GALE	BUY	2.28	233.2	3.00	1.23	43.4%	3.6%	28.1%	(0.53)	(0.53)	(0.53)	0.00	0.00	0.00	0.26	216.1	13,919,317
	Heat Biologics	HTBX	BUY	12.44	77.1	13.50	9.01	24.4%	-2.0%	NA	(3.03)	(1.55)	(1.53)	0.00	0.00	0.00	0.79	73.5	704
	ImmunoCellular	IMUC	NC	2.57	140.3	3.69	1.51	26.6%	0.0%	-8.5%	(0.35)	(0.25)	(0.31)	0.00	0.00	0.00	0.47	114.9	4,109,304
	Merrimack Pharm.	MACK	NC	3.79	387.4	9.40	3.26	-39.2%	-0.8%	-59.6%	(1.28)	(1.20)	(1.11)	0.48	0.63	0.66	0.61	365.5	13,537,830
	NewLink Genetics	NLNK	BUY	18.78	482.7	23.67	10.60	57.7%	-4.6%	15.7%	(1.12)	(1.42)	(2.13)	0.07	0.04	0.03	2.31	430.7	3,871,908
	Oncomed	OMED	NC	15.31	426.1	31.00	15.25	-9.9%	-1.1%	NA	(21.06)	(0.67)	(0.80)	0.89	1.41	1.79	2.03	552.7	620,564
	Oncothyreon	ONTY	BUY	2.06	130.7	5.58	1.55	1.5%	1.0%	-59.8%	(0.53)	(0.71)	(0.65)	0.00	0.00	0.00	0.80	79.8	6,028,904
	Stemline	STML	NC	45.30	568.0	45.86	10.33	353.0%	-1.7%	NA	(1.82)	(2.16)	(2.23)	0.00	0.00	0.00	7.39	475.3	613,962
	Sunesis Pharma	SNSS	BUY	4.96	256.4	6.85	3.60	18.4%	-2.4%	-11.9%	(0.91)	(0.78)	(0.68)	0.07	0.14	0.15	0.96	228.8	6,895,065
	Synta	SNTA	NC	6.31	435.8	11.88	3.76	-34.5%	-1.1%	-17.2%	(0.91)	(0.78)	(0.68)	0.05	0.10	0.12	1.02	389.3	17,131,860
	Verastem	VSTM	BUY	12.45	318.6	18.82	6.25	25.8%	-1.4%	32.6%	(1.70)	(1.78)	(2.03)	0.00	0.00	0.00	2.24	261.2	903,283
	Average				\$315.6			35.0%	-0.6%	-9.9%	(\$3.03)	(\$1.03)	(\$1.06)	\$0.28	\$0.37	\$0.39	\$1.85	\$287.2	4,514,724
Mid Cap	Ariad	ARIA	NC	\$18.40	\$3,405.97	\$25.40	\$15.35	-8.4%	-1.7%	-24.0%	(\$1.34)	(\$1.62)	(\$1.22)	\$0.00	\$0.34	\$0.93	\$1.90	\$3,110.8	18,905,160
	Array Biopharma	ARRY	NC	6.22	728.7	7.10	3.25	56.7%	-2.4%	6.4%	(0.33)	(0.57)	(0.71)	0.73	0.59	0.41	0.92	719.4	10,647,848
	Celldex	CLDX	BUY	35.43	2,869.4	37.98	5.02	406.1%	-4.5%	462.4%	(0.98)	(0.96)	(1.04)	0.14	0.03	0.01	1.91	2714.9	8,947,187
	Clovis Oncology	CLVS	NC	60.80	1,834.4	86.29	11.19	257.9%	0.6%	197.3%	(2.97)	(2.74)	(3.41)	0.00	0.00	0.00	12.34	1462.2	849,392
	Dendreon	DNDN	HOLD	2.93	462.1	7.22	2.69	-49.7%	0.3%	-39.1%	(2.65)	(1.76)	(1.18)	2.06	1.93	2.20	1.32	846.6	52,589,048
	Epizyme	EPZM	NC	40.00	1,136.7	45.72	18.60	166.7%	-2.6%	NA	(0.72)	(1.52)	(0.65)	1.59	1.50	2.00	5.23	988.0	981,413
	Exelixis	EXEL	NC	5.82	1,071.6	5.96	4.29	20.5%	-0.9%	20.6%	(0.92)	(1.32)	(1.36)	0.26	0.18	0.21	1.98	1043.5	41,623,608
	Immunogen (c)	IMGN	HOLD	17.02	1,448.6	20.25	10.85	26.2%	-2.0%	16.7%	(0.95)	(0.90)	(0.71)	0.19	0.42	0.78	2.29	1253.3	9,982,480
	Incyte	INCY	NC	38.15	5,839.3	38.87	15.43	124.4%	-3.2%	111.4%	(0.34)	(0.29)	0.32	1.94	2.28	3.39	1.81	5785.7	10,896,601
	Infinity Pharm	INFI	NC	17.43	836.3	50.51	15.45	-52.2%	0.5%	-25.9%	(1.70)	(2.87)	(2.61)	0.98	0.00	1.59	5.77	559.7	4,733,984
	Medivation	MDVN	NC	59.94	4,508.2	61.46	41.89	16.4%	0.2%	6.4%	(0.56)	(0.87)	0.38	2.42	3.23	5.32	3.27	4463.9	2,616,027
	Pharmacylics	PCYC	NC	138.26	10,113.6	140.45	44.91	125.0%	-0.8%	114.4%	0.17	(0.41)	0.51	1.12	1.95	3.56	6.90	9608.6	844,906
	Seattle Genetics	SGEN	SELL	43.83	5,340.4	49.23	21.05	81.6%	-1.0%	62.7%	(0.46)	(0.64)	0.02	1.73	1.97	2.71	2.77	5002.3	16,070,898
	Average				\$3,045.8			90.1%	-1.3%	75.8%	(\$1.06)	(\$1.27)	(\$0.90)	\$1.01	\$1.11	\$1.78	\$3.73	2,889.13	13,822,196
Large Cap	Alexion	ALXN	NC	\$116.16	\$22,716.02	\$125.65	\$81.82	16.1%	-1.5%	1.5%	\$2.13	\$3.03	\$3.33	\$5.80	\$7.83	\$9.75	\$5.72	\$21,733.6	2,876,326
	Amgen	AMGN	NC	111.93	84,319.4	117.91	81.56	25.5%	-1.8%	32.8%	6.51	7.32	8.14	22.92	24.28	25.39	29.23	86,216.4	8,521,776
	Biogen Idec	BIIB	NC	240.76	57,221.9	248.95	134.00	60.5%	-1.8%	61.4%	6.53	8.53	10.70	23.21	28.70	33.45	2.81	57,284.4	2,776,952
	Celgene	CELG	BUY	154.14	63,392.8	156.04	71.23	90.1%	-1.3%	101.8%	4.91	5.93	7.43	13.39	15.46	18.38	9.92	62,929.6	4,946,904
	Gilead	GILD	NC	62.87	96,230.5	64.74	32.07	67.5%	0.2%	89.6%	1.95	1.96	3.04	6.34	7.05	8.83	1.49	101,532.2	59,233,394
	Regeneron	REGN	NC	312.87	30,257.7	319.83	136.13	72.7%	-0.7%	104.9%	6.75	7.02	8.98	14.25	19.99	25.81	5.56	30,193.5	3,849,908
	Vertex	VRTX	NC	75.82	17,651.8	89.96	38.44	73.7%	-1.0%	35.7%	(0.50)	(2.35)	(1.80)	6.56	5.04	4.17	6.40	16,786.9	3,480,293
	Average				\$53,112.9			58.0%	-1.1%	61.1%	\$4.04	\$4.49	\$5.69	\$13.21	\$15.48	\$17.97	\$8.73	\$33,266.7	12,240,793
Indices	S&P 500	SP50	NA	1,681.6		-	-	15.0%	-0.8%	16.7%	NM	109.7	121.9	NA	1,149.1	1,195.8			
	Dow Jones Ind	DJII	NA	15,129.7		-	-	12.8%	-0.5%	12.6%	NM	1,061.4	1,144.4	NA	9,625.4	10,048.0			
	NASDAQ Comp	COMP	NA	3,771.5		-	-	21.2%	-1.0%	21.0%	NM	179.7	213.6	NA	1,959.9	2,097.0			
	Amex Biotech Index	BTK	NA	2,179.8		-	-	35.9%	-1.2%	39.9%	NM	67.3	88.1	NA	278.6	317.0			
	NASDAQ Biotech	NBI	NA	2,188.9		-	-	48.1%	-1.4%	47.3%	NM	46.6	69.8	NA	294.6	337.7			
Mkt Cap. Range	Company	Ticker	Rating	Price Change From		P/E			Price/Sales			Price/Debt			EV/		Sales		BV
				High	Low	2012A	2013E	2014E	2012A	2013E	2014E	Cash	Debt	BV	EBITDA	Net Inc.	FCF		
Mid	Medivation	MDVN	NC	-2.5%	43.1%	NA	NA	159.2	24.81	18.57	11.26	18.30	22.32	60.86	(181.5)	(68.2)	NA	24.6	60.3
Large	Alexion	ALXN	NC	-7.6%	42.0%	54.5	38.4	34.9	20.03	14.84	11.92	20.29	165.81	11.47	52.9	36.7	55.9	19.2	11.0
Large	Amgen	AMGN	NC	-5.1%	37.2%	17.2	15.3	13.8	4.88	4.61	4.41	3.83	3.53	4.44	12.1	15.6	21.2	5.0	4.5
Large	Biogen Idec	BIIB	NC	-3.3%	79.7%	36.9	28.2	22.5	10.37	8.39	7.20	85.70	78.43	8.18	26.4	28.3	35.2	10.4	8.2
Large	Celgene	CELG	BUY	-1.2%	116.4%	31.4	26.0	20.7	11.51	9.97	8.39	15.53	17.52	11.36	29.7	25.8	33.0	11.4	11.3
Large	Gilead	GILD	NC	-2.9%	96.0%	32.2	32.1	20.7	9.92	8.92	7.12	42.07	13.11	10.26	24.2	33.8	36.3	10.5	10.8
Large	Regeneron	REGN	NC	-2.2%	129.8%	46.4	44.6	34.9	21.95	15.65	12.12	56.29	63.93	24.44	61.0	44.5	NA	21.9	24.4
Large	Vertex	VRTX	NC	-15.7%	97.2%	NA	NA	NA	11.56	15.06	18.18	11.85	44.37	16.49	396.2	(30.7)	85.3	11.0	15.68
Large Cap Only (d)						36.4	30.8	21.1	12.9	11.1	9.9	\$33.65	\$36.81	\$12.38	90.2	22.0	44.5	12.8	12.3

(a) All companies listed on NASDAQ

(b) All figures consensus estimates except for rated companies. Rated companies are Cantor Fitzgerald estimates. EPS and revenue per share exclude option expense and other one-time items, when available, otherwise EPS actual and estimates reflect non GAAP format.

(c) ImmunoGen CY estimates represent fiscal year-end (June) figures.

(d) Excludes Spectrum Pharmaceuticals (SPPI)

Source: Cantor Fitzgerald research, FactSet

Company Description

Heat Biologics is a development-stage company focused on therapeutic cancer vaccines employing the company's proprietary technology that harnesses the immune-provoking ability of gp96, a heat shock protein, in an allogeneic, "off the shelf," vaccine.

Companies Mentioned:

Agenus Inc. (AGEN - NASDAQ): NC
 Agios Pharmaceuticals, Inc. (AGIO - NASDAQ): NC
 Alexion Pharmaceuticals Inc. (ALXN - NASDAQ): NC
 Amgen Inc. (AMGN - NASDAQ): NC
 Ariad Pharmaceuticals Inc. (ARIA - NASDAQ): NC
 Astex Pharmaceuticals Inc. (ASTX - NASDAQ): NC
 Biogen Idec (BIIB - NASDAQ): NC
 Celgene Corporation (CELG - NASDAQ): BUY
 Celldex Therapeutics, Inc. (CLDX - NASDAQ): BUY
 Cleveland BioLabs, Inc. (CBLI - NASDAQ): BUY
 Curis Inc. (CRIS - NASDAQ): NC
 Dendreon Corporation (DNDN - NASDAQ): HOLD
 Endocyte Inc. (ECYT - NASDAQ): NC
 Epizyme, Inc. (EPZM - NASDAQ): NC
 Exelixis Inc. (EXEL - NASDAQ): NC
 Galena Biopharma (GALE - NASDAQ): BUY
 Gilead Sciences Inc. (GILD - NASDAQ): NC
 Heat Biologics, Inc. (HTBX - NASDAQ): BUY
 ImmunoGen, Inc. (IMGN - NASDAQ): HOLD
 Incyte Corporation (INCY - NASDAQ): NC
 Medivation Inc. (MDVN - NASDAQ): NC
 Merrimack Pharmaceuticals Inc. (MACK - NASDAQ): NC
 NewLink Genetics Corporation (NLNK - NASDAQ): BUY
 Oncothyreon Inc. (ONTY - NASDAQ): BUY
 ONYX Pharmaceuticals Inc. (ONXX - NASDAQ): NC
 Pharmacyclics Inc. (PCYC - NASDAQ): NC
 Regeneron Pharmaceuticals Inc. (REGN - NASDAQ): NC
 Seattle Genetics, Inc. (SGEN - NASDAQ): SELL
 Spectrum Pharmaceuticals Inc. (SPPI - NASDAQ): NC
 Sunesis Pharmaceuticals, Inc. (SNSS - NASDAQ): BUY
 Verastem, Inc. (VSTM - NASDAQ): BUY
 Vertex Pharmaceuticals Inc. (VRTX - NASDAQ): NC
 Lonza (private)

Disclosures Appendix

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Rating	Cantor		IB Serv./Past 12 Mos.	
	Count	Percent	Count	Percent
BUY [B]	85	56.29	20	23.53
HOLD [H]	53	35.10	4	7.55
SELL [S]	13	8.61	2	15.38