

Equity Research

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Heat Biologics, Inc. (HTBX-\$4.13)

Rating: BUY

Target Price: \$18.00

1Q:14 EPS Reflect Trial Ramp Up; Reiterate BUY

<u>EPS</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>
2013A	(1.66)A	(0.92)A	(0.48)A	(0.31)A
2014E	(0.36)A	(0.38)E	(0.41)E	(0.41)E
Prev	(0.38)E	(0.37)E	(0.39)E	(0.40)E
2015E	—	—	—	—
<u>REV</u>	<u>1Q</u>	<u>2Q</u>	<u>3Q</u>	<u>4Q</u>
2013A	0.0A	0.0A	0.0A	0.0A
2014E	0.0A	0.0E	0.0E	0.0E
2015E	—	—	—	—
<u>FY</u>	<u>2013A</u>	<u>2014E</u>	<u>2015E</u>	
EPS	(2.42)A	(1.56)E	(1.71)E	
Prev	—	(1.54)E	(1.68)E	
REV	0.0A	0.0E	0.0E	

- **1Q:14 Reflects Clinical Work.** Heat Biologics ("Heat") reported 1Q:14 EPS roughly in line with our forecast, as loss per share for the quarter was (\$0.36) versus our estimate of (\$0.38). R&D continues to reflect the company's growing clinical programs, rising modestly quarter over quarter to \$1.38 million, essentially in line with our \$1.39 million estimate. We model continued increases in R&D spending for the HS-110 and HS-410 trials. The company reported a cash balance of over \$19 million at the end of 1Q:14, which should be sufficient to last through 2015 given the current rate of spending, in our view. We have updated our model to reflect the quarter and our new forecast.
- **HS-410 Dosing Underway.** HS-410 is a Phase I trial bladder cancer trial involving dose exploration consisting of low- and high-dose cohorts. The low-dose arm is enrolling, and the high dose arm should begin before year-end 2014. This suggests to use that data from this study could be available in 1H:15, with a Phase IIa initiation to follow.
- **HS-110 on Deck.** Heat will begin dosing of its Phase II trial NSCLC trial later this year, reflecting the protocol change to include metronomic dosing of cyclophosphamide. This trial could produce data in 2016, though we believe that data readouts relating to immune response and the like could be available before the full data set reads out.
- **Market Dynamics have Hurt the Shares.** HTBX shares have been hurt with the recent pullback in the biotechnology sector, having declined 38% since the beginning of the quarter. Particularly, we believe the impact to HTBX may have been exacerbated by the early stage of the clinical programs and modest trading volume, in spite the improving visibility on the pipeline.
- **Progression is the Key.** Market conditions notwithstanding, a key component of improving valuation for Heat will be visibility on clinical trial programs. We think that the enrollment of HS-110 will be helpful in this regard, as will the start of the second cohort (high dose) for the HS-410 trial. Our price target on the shares has been based on the opportunity for enterprise valuation expansion, which we still see as a possibility given the proximity to clinical inflection points. We maintain our BUY rating and \$18 PT.

Current Statistics

Market Cap (\$Mil)	\$26.7
Avg. Daily Trading Volume (3 mo.):	22,717
Shares Out (Mil):	6.452
52 Wk. Range	\$15.29-\$4.12

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. 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.
- **Continued News Flow Anticipated** – Heat Biologics has initiated the Phase I study of HS-410 in bladder cancer and will soon begin enrolling for the Phase II for HS-110 for NSCLC by 3Q:14. While Heat anticipates the Phase II trial for HS-110 to read out in 3Q:2017, antigen response data could be available in 2016. Similarly, we expect news flow from HS-410 including an enrollment update in 2014. Management has also indicated intent to announce a third product potentially in the near term. These 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 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 pipeline, we believe that the advancing clinical program could expand the company's EV. 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	\$2.65	18.40	\$48.77	\$0.00	\$0.00	\$0.23	\$15.96	33.03	(79.7%)
	Agenus	AGEN	2.57	62.30	160.11	0.00	0.00	0.00	73.49	86.62	(92.2%)
	Celldex Therapeutics	CLDX	12.8	89.36	1,142.9	0.00	0.00	0.00	274.23	868.66	(99.2%)
	Galena Biopharma	GALE	2.33	118.03	275.00	0.00	0.00	10.01	52.63	232.39	(97.1%)
	Immunocellular	IMUC	1.16	57.57	66.78	0.00	0.00	0.00	25.03	41.75	(83.9%)
	Inovio	INO	2.16	240.15	518.72	0.00	0.44	0.00	116.78	402.37	(98.3%)
	Newlink Genetics	NLNK	23.91	27.87	666.47	0.00	0.00	6.99	83.96	589.49	(98.9%)
	Oncothyreon	ONTY	2.71	70.75	191.73	0.00	0.00	0.03	58.59	133.17	(95.0%)
	Average									298.44	(97.7%)
Phase II Development Stage	Clovis	CLVS	\$47.83	33.9	\$1,622.01	\$0.00	\$0.00	\$0.00	\$303.65	1,318.36	(99.5%)
	Cytrx	CYTR	3.18	55.78	177.37	0.00	0.00	0.00	112.61	64.76	(89.6%)
	Epizyme	EPZM	21.68	32.75	710.0	0.00	0.00	0.00	123.56	586.46	(98.9%)
	Infinity Pharma	INFI	9.21	48.54	447.08	0.00	0.00	13.12	213.89	246.32	(97.3%)
	Oncomed	OMED	23.22	29.56	686.27	0.00	0.00	0.00	316.19	370.07	(98.2%)
	Oncosec	ONCS	0.74	212.21	157.03	0.00	0.00	0.00	18.45	138.58	(95.1%)
	Verastem	VSTM	7.45	25.84	192.47	0.00	0.00	0.00	101.40	91.07	(92.6%)
	Coronado Biosciences	CNDO	1.55	44.31	68.67	0.00	0.00	13.62	99.52	(17.23)	(139.0%)
	Progenics	PGNX	3.52	69.56	244.84	0.00	0.00	0.00	94.04	150.80	(95.5%)
	Average									327.69	(97.9%)
Recent IPOs	Tesaro Inc.	TSRO	\$24.01	36.00	864.26	0.00	0.00	0.00	130.31	733.95	(99.1%)
	Epizyme	EPZM	21.68	32.75	710.0	0.00	0.00	0.00	123.56	586.46	(98.9%)
	BlueBird Bio	BLUE	18.24	24.36	444.40	0.00	0.00	0.00	206.28	238.12	(97.2%)
	Merrinack Pharmaceuticals	MACK	6.68	103.41	690.75	0.00	0.00	0.00	124.18	566.57	(98.8%)
	Intercept Pharmaceuticals	ICPT	235.37	21.06	4,957.60	0.00	0.00	0.00	134.11	4,823.49	(99.9%)
	ChemoCentryx	CCXI	5.11	43.17	220.61	0.00	0.00	0.00	141.91	78.70	(91.5%)
	Regulus Therapeutics	RGLS	6.47	43.36	280.52	0.00	0.00	13.40	114.60	179.33	(96.3%)
	Receptos	RCPT	30.84	22.17	683.69	0.00	0.00	4.96	158.57	530.08	(98.7%)
	Stemline Therapeutics	STML	14.24	13.24	188.54	0.00	0.00	0.00	44.20	144.34	(95.3%)
	Enanta Pharmaceuticals	ENTA	34.70	18.36	637.20	0.00	0.00	0.21	94.77	542.63	(98.8%)
	Average									\$842.37	(99.2%)
	Heat Biologics*	HTBX	\$4.12	6.42	26.44	0.00	(0.27)	0.00	19.44	6.72	(98.3%)

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: Sales and Earnings by Quarter

Heat Biologics

<i>All figures in millions</i>	2014E	4Q14E	9Mos14E	3Q14E	6Mos14E	2Q14E	1Q14A	CY2013A	4Q2013A	9Mos13A	3Q13A	6Mos13A	2Q13A	1Q13A
Revenue	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$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	0.00	\$0.00	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	0.00	\$0.00	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	0.00	\$0.00	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	\$0.00	\$0.00	\$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>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>
Operating Expenses														
SG&A	4.76	1.20	3.56	1.39	2.17	1.16	1.01	2.43	0.99	1.44	0.74	0.71	0.44	0.27
R&D	6.22	1.74	4.48	1.59	2.89	1.51	1.38	4.13	1.27	2.87	1.22	1.64	1.14	0.50
Total Operating Expenses	10.98	2.94	8.04	2.98	5.06	2.67	2.39	6.56	2.25	4.31	1.96	2.35	1.58	0.77
Profit (Loss) from Operations	(\$10.98)	(\$2.94)	(\$8.04)	(\$2.98)	(\$5.06)	(\$2.67)	(\$2.39)	(\$6.56)	(\$2.25)	(\$4.31)	(\$1.96)	(\$2.35)	(\$1.58)	(\$0.77)
<i>Operating Profit Margin</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>
Interest Income (Expense)	(0.02)	(0.04)	0.02	0.05	(0.03)	(0.04)	0.01	(0.07)	0.04	(0.11)	(0.05)	(0.06)	(0.03)	(0.03)
Other Income (Expense)	(0.15)	(0.02)	(0.13)	(0.03)	(0.09)	(0.06)	(0.04)	0.02	0.10	(0.08)	(0.03)	(0.05)	(0.06)	0.01
Income (Loss) from Continuing Operations	(\$11.15)	(\$3.00)	(\$8.15)	(\$2.96)	(\$5.19)	(\$2.77)	(\$2.42)	(\$6.61)	(\$2.11)	(\$4.50)	(\$2.03)	(\$2.46)	(\$1.67)	(\$0.79)
<i>Pretax Margin</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Income (Loss)	(\$11.15)	(\$3.00)	(\$8.15)	(\$2.96)	(\$5.19)	(\$2.77)	(\$2.42)	(\$6.61)	(\$2.11)	(\$4.50)	(\$2.03)	(\$2.46)	(\$1.67)	(\$0.79)
Non-controlling Interest	(\$0.75)	(\$0.23)	(\$0.52)	(\$0.22)	(\$0.30)	(\$0.21)	(\$0.09)	(\$0.20)	(\$0.06)	(\$0.14)	(\$0.06)	(\$0.08)	(\$0.05)	(\$0.02)
Net Income to Heat Biologics (Loss)	(\$10.41)	(\$2.78)	(\$7.63)	(\$2.74)	(\$4.89)	(\$2.56)	(\$2.33)	(\$6.41)	(\$2.06)	(\$4.36)	(\$1.97)	(\$2.38)	(\$1.62)	(\$0.76)
Beneficial Conversion Charge/Pfd stock dividend*	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	(\$2.66)	\$0.00	(\$2.66)	(\$0.36)	(\$2.30)	\$0.00	(\$2.30)
Net Attributable to Common Shareholders	(\$10.41)	(\$2.78)	(\$7.63)	(\$2.74)	(\$4.89)	(\$2.56)	(\$2.33)	(\$9.07)	(\$2.06)	(\$7.02)	(\$2.3)	(\$4.68)	(\$1.6)	(\$3.1)
<i>Net Margin</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>	<i>NM</i>
Basic & Diluted Net Loss Per Share	(\$1.56)	(\$0.41)	(\$1.15)	(\$0.41)	(\$0.74)	(\$0.38)	(\$0.36)	(\$2.42)	(\$0.31)	(\$2.49)	(\$0.48)	(\$2.59)	(\$0.92)	(\$1.66)
<i>Shares Outstanding</i>	<i>6.67</i>	<i>6.78</i>	<i>6.63</i>	<i>6.75</i>	<i>6.57</i>	<i>6.72</i>	<i>6.41</i>	<i>3.75</i>	<i>6.41</i>	<i>2.82</i>	<i>4.84</i>	<i>1.81</i>	<i>1.76</i>	<i>1.86</i>

Note: numbers may not add due to rounding

Exhibit 3: Annual Sales and Earnings
Heat Biologics

<i>Exhibit 3: Pipeline and Milestones</i>	2018E	2017E	2016E	2015E	2014E	2013A
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	6.03	5.29	4.76	2.43
R&D	13.96	12.03	9.78	7.53	6.22	4.13
Total Operating Expenses	21.07	18.90	15.81	12.81	10.98	6.56
Profit (Loss) from Operations	(\$21.07)	(\$18.90)	(\$15.81)	(\$12.81)	(\$10.98)	(\$6.56)
<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)	(0.02)	(0.07)
Other Income (Expense)	0.03	0.07	0.11	0.10	(0.15)	0.02
Income (Loss) from Continuing Operations	(\$21.12)	(\$18.89)	(\$15.83)	(\$12.83)	(\$11.15)	(\$6.61)
<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)	(\$21.12)	(\$18.89)	(\$15.83)	(\$12.83)	(\$11.15)	(\$6.61)
Non-controlling Interest	(\$1.58)	(\$1.42)	(\$1.19)	(\$0.96)	(\$0.75)	(\$0.20)
Net Income to Heat Biologics	(\$19.53)	(\$17.48)	(\$14.65)	(\$11.87)	(\$10.41)	(\$6.41)
Beneficial Conversion Charge	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	(\$2.66)
Net Attributable to Common Shareholders	(\$19.53)	(\$17.48)	(\$14.65)	(\$11.87)	(\$10.41)	(\$9.07)
<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	(\$1.84)	(\$2.04)	(\$1.78)	(\$1.71)	(\$1.56)	(\$2.42)
<i>Shares Outstanding</i>	10.64	(0.31)	8.23	6.93	6.67	3.75

Source: Heat Biologics, Cantor Fitzgerald research

Exhibit 4: Comparative Valuation

Biotechnology
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Mkt Cap. Range	Company (a)	Ticker	Rating	Price 5/12/14	Market Cap. (mil)	52-Week		Performance (b)			Earnings Per Share (c)			Revenue Per Share (c)			Per Share Cash	EV (mil)	Short Interest
						High	Low	YTD	QTD	1-Year	2013A	2014E	2015E	2013A	2014E	2015E			
Small Cap	Ambit	AMBI	NC	6.18	111.1	21.44	5.75	-37.5%	-35.7%	NA	(1.15)	(2.20)	(2.19)	1.51	0.05	0.09	3.44	49.2	219,461
	Curis	CRIS	NC	2.01	172.8	4.74	1.91	-30.0%	-32.3%	-47.9%	(0.15)	(0.24)	(0.18)	0.17	0.11	0.24	0.74	139.0	5,964,714
	Cyclacel	CYCC	NC	3.27	74.2	5.50	2.75	-21.6%	-9.7%	-15.1%	(1.28)	(1.07)	(1.05)	0.05	0.00	0.01	1.37	43.0	1,859,276
	Dendreon	DNDN	HOLD	1.94	302.6	5.38	1.83	-36.2%	-35.3%	-51.9%	(1.95)	(0.82)	(0.56)	1.82	1.89	68.28	0.99	734.3	41,206,278
	Galena Biopharma	GALE	SELL	2.33	270.3	7.77	1.65	-54.1%	-9.0%	-14.7%	(0.46)	(0.30)	(0.29)	0.02	0.13	0.21	0.45	224.9	26,490,970
	Heat Biologics	HTBX	BUY	4.12	26.6	15.29	4.12	-43.6%	-38.6%	NA	(2.42)	(1.56)	(1.79)	0.00	0.00	0.00	3.39	4.4	79,204
	ImmunoCellular	IMUC	NC	1.16	66.8	4.00	0.65	18.4%	-6.5%	-52.1%	(0.16)	(0.27)	(0.33)	0.00	0.00	0.00	0.43	41.7	4,085,582
	Merrimack Pharm.	MACK	NC	6.68	690.7	7.65	2.05	19.5%	24.9%	39.5%	(1.32)	(1.16)	(0.68)	0.46	0.51	1.33	1.20	566.6	23,382,950
	Oncolytheon	ONTY	HOLD	2.71	191.7	4.08	1.55	48.9%	-14.2%	5.9%	(0.62)	(53.00)	(53.00)	0.00	0.00	0.00	0.83	133.2	4,530,324
	Stemline	STML	NC	14.24	188.5	47.25	12.52	-30.0%	-28.0%	0.5%	(2.35)	(3.16)	(3.49)	0.01	0.00	0.00	3.34	144.3	854,313
	Sunesis Pharma	SNSS	BUY	5.01	301.7	7.49	3.84	7.5%	-26.0%	-0.4%	(0.66)	(0.86)	(0.42)	0.13	0.15	0.84	1.17	247.0	6,248,805
	Synta	SNTA	NC	4.13	385.2	8.25	3.70	-21.5%	-6.8%	-45.4%	(1.27)	(1.07)	(1.11)	0.00	0.00	0.00	0.84	306.4	15,405,326
	Verastem	VSTM	BUY	7.45	189.8	18.82	7.10	-40.3%	-32.2%	-23.0%	(1.82)	(1.96)	(2.13)	0.00	0.00	0.00	4.32	79.8	2,021,683
	Average				\$214.3			-19.5%	-19.5%	-22.7%	(\$1.15)	(\$5.20)	(\$4.84)	\$0.31	\$0.22	\$5.09	\$1.63	\$196.2	9,514,718
Mid Cap	Agios Pharmaceuticals	AGIO	NC	\$36.58	\$1,214.57	\$49.79	\$15.77	52.3%	-2.1%	NA	(\$2.83)	(\$1.47)	(\$1.25)	\$0.77	\$1.17	\$1.60	\$5.04	\$1,047.3	1,728,124
	Ariad	ARIA	NC	6.67	1,245.9	23.00	2.15	-8.1%	-21.7%	-59.6%	(1.49)	(1.05)	(0.68)	0.24	0.45	6.80	0.98	1063.0	40,509,633
	Array Biopharma	ARRY	NC	3.94	496.4	7.10	3.39	-20.1%	-14.9%	-25.1%	(0.57)	(0.70)	(0.65)	0.55	0.35	8.36	0.88	488.6	16,677,635
	Celldex	CLDX	BUY	12.79	1,142.9	38.84	10.76	-48.0%	-28.7%	11.1%	(1.02)	(1.06)	(1.06)	0.05	0.01	0.02	3.07	868.7	13,201,138
	Clovis Oncology	CLVS	NC	47.83	1,622.0	93.33	32.32	-19.2%	-32.7%	31.2%	(2.95)	(3.89)	(4.69)	0.00	0.35	0.00	8.95	1318.4	2,329,848
	Endocyte	ECYT	NC	6.73	273.6	33.70	6.25	-37.6%	-71.3%	-49.8%	(0.50)	(0.19)	(1.19)	1.60	1.66	0.52	-	273.6	4,513,238
	Epizyme	EPZM	NC	21.68	710.0	45.72	18.10	7.0%	-8.6%	NA	(0.22)	(1.48)	(2.02)	2.09	1.29	0.68	3.77	586.5	2,670,255
	Exelixis	EXEL	NC	3.45	671.7	8.41	3.02	-44.2%	-6.0%	-28.4%	(1.33)	(1.56)	(1.39)	0.16	0.12	7.31	-	671.7	48,433,036
	Immunogen (d)	IMGN	HOLD	11.86	1,017.8	20.25	11.05	-20.8%	-21.3%	-23.4%	(0.87)	(0.44)	(0.44)	0.41	0.74	3.12	1.91	853.7	9,647,895
	Incyte	INCY	NC	52.08	8,730.1	70.86	18.23	1.7%	-4.9%	132.8%	(0.56)	(0.55)	0.21	2.12	2.78	9.44	3.10	8876.1	8,347,559
	Infinity Pharm	INFI	NC	9.21	447.1	33.93	8.40	-31.5%	-20.5%	-71.0%	(2.64)	(3.52)	(2.82)	0.00	0.00	0.26	4.41	246.3	4,341,284
	Medivation	MDVN	NC	65.11	4,982.5	88.20	44.51	2.6%	-1.0%	24.6%	(0.57)	1.38	2.69	3.57	7.31	8.34	3.16	4952.7	3,746,145
	NewLink Genetics	NLNK	BUY	23.91	666.5	53.48	14.62	11.8%	-14.5%	62.5%	(1.23)	(1.74)	(1.91)	0.04	0.05	1.38	3.01	589.5	4,124,496
	Oncomed	OMED	NC	23.22	686.3	42.34	12.07	-20.8%	-28.8%	NA	(1.93)	(0.62)	(0.46)	1.28	2.29	3.18	10.70	370.1	2,092,329
	Pharmacylics	PCYC	NC	95.08	7,134.0	154.89	74.60	-12.3%	-11.5%	27.7%	0.87	0.01	0.42	3.47	6.38	5.03	9.20	6444.0	3,101,212
	Seattle Genetics	SGEN	SELL	35.35	4,351.9	55.99	28.15	-12.0%	-24.4%	0.5%	(0.51)	(0.97)	(0.97)	2.19	1.88	1.88	2.89	3996.5	14,707,948
	Average				\$2,212.1			-12.5%	-19.6%	2.5%	(\$1.15)	(\$1.12)	(\$1.01)	\$1.16	\$1.68	\$3.62	\$3.82	\$2,040.4	11,260,736
Large Cap	Alexion	ALXN	NC	\$152.87	\$30,237.07	\$185.43	\$87.01	14.6%	-1.6%	55.7%	\$3.08	\$4.86	\$5.65	\$7.84	\$11.04	\$14.34	\$7.87	\$28,773.1	3,690,232
	Amgen	AMGN	NC	111.48	84,394.7	128.96	94.15	-3.7%	-11.6%	6.6%	7.60	8.09	8.77	24.67	25.63	155.62	26.16	96,616.7	9,006,461
	Biogen Idec	BIIB	NC	286.65	67,993.4	358.89	194.66	2.3%	-7.5%	37.0%	8.96	11.49	14.25	29.23	37.30	28.04	5.31	67,332.1	3,015,792
	Celgene	CELG	BUY	146.67	58,729.2	174.66	110.53	-14.7%	0.0%	19.5%	5.96	7.32	9.57	16.22	18.83	52.63	14.60	57,976.0	6,671,593
	Gilead	GILD	NC	79.76	122,486.0	84.88	46.70	6.0%	8.3%	51.1%	2.04	6.26	7.77	7.29	14.09	299.40	4.21	126,181.4	97,322,157
	Regeneron	REGN	NC	279.41	27,628.1	352.49	206.30	1.8%	-9.0%	6.7%	8.17	9.80	11.71	21.29	27.74	9.67	6.55	27,511.0	4,098,717
	Vertex	VRTX	NC	65.05	15,364.4	89.96	58.06	-11.9%	-9.5%	-15.3%	(1.98)	(2.84)	0.50	5.13	2.30	16.04	5.61	14,581.4	5,155,827
	Average				\$58,119.0			-0.8%	-4.4%	23.0%	\$4.83	\$6.42	\$8.32	\$15.95	\$19.56	\$82.25	\$10.05	\$31,257.9	18,422,968
Indices	S&P 500	SP50	NA	1,878.5	NA	1,897.28	1,560.33	2.5%	-0.4%	15.5%	NA	119.28	132.63	NA	NA	NA	NA	NA	NA
	Dow Jones Ind	DJII	NA	16,583.3	NA	16,631.63	14,551.27	0.9%	0.3%	9.9%	NA	1,125.43	1,222.06	NA	NA	NA	NA	NA	NA
	NASDAQ Comp	COMP	NA	4,071.9	NA	4,371.71	3,294.95	-1.7%	-4.6%	19.4%	NA	208.73	245.96	NA	NA	NA	NA	NA	NA
	Amex Biotech Index	BTK	NA	2,505.2	NA	2,963.54	1,812.88	6.9%	-5.5%	29.6%	NA	120.66	151.42	NA	NA	NA	NA	NA	NA
	NASDAQ Biotech	NBI	NA	2,364.1	NA	2,872.29	1,714.89	-0.4%	-6.2%	29.5%	NA	85.23	116.73	NA	NA	NA	NA	NA	NA
Mkt Cap. Range	Company	Ticker	Rating	Price Change From		P/E			Price/Sales			Price/				EV/			
				High	Low	2013A	2014E	2015E	2013A	2014E	2015E	Cash	Debt	BV	EBITDA	Net Inc.	FCF	Sales	BV
Mid	Medivation	MDVN	NC	-26.2%	46.3%	NA	47.1	24.2	18.25	8.90	7.81	20.63	23.54	64.14	(201.3)	(113.5)	NA	27.3	63.8
Large	Alexion	ALXN	NC	-17.6%	75.7%	49.6	31.5	27.1	19.49	13.85	10.66	19.41	323.39	0.27	51.0	47.2	74.0	25.4	0.3
Large	Amgen	AMGN	NC	-13.6%	18.4%	14.7	13.8	12.7	4.52	4.35	0.72	4.26	2.64	3.81	171.4	16.8	23.1	5.6	4.4
Large	Biogen Idec	BIIB	NC	-20.1%	47.3%	32.0	25.0	20.1	9.81	7.68	10.22	53.95	114.36	NA	22.2	31.7	41.4	12.2	NA
Large	Celgene	CELG	BUY	-16.0%	32.7%	24.6	20.0	15.3	9.04	7.79	2.79	10.04	11.53	10.75	24.7	24.3	30.4	10.5	10.6
Large	Gilead	GILD	NC	-6.0%	70.8%	39.1	12.7	10.3	10.93	5.66	0.27	18.93	NM	10.76	30.0	40.3	45.1	13.0	11.1
Large	Regeneron	REGN	NC	-20.7%	35.4%	34.2	28.5	23.9	13.13	10.07	28.89	42.63	52.02	21.83	55.3	34.05	NA	20.0	21.7
Large	Vertex	VRTX	NC	-27.7%	12.0%	NA	NA	129.7	12.68	28.33	4.06	11.60	28.39	14.15	344.2	(31.2)	74.1	9.5	NA
Large	Large Cap Only					32.4	18.8	34.1	11.4	11.1	8.2	\$22.98	\$41.79	18.59	20.6	23.3	48.0	13.7	18.6

(a) All companies listed on NASDAQ

(b) NA values returned for public companies with less than one year trading history. Figures reflect most current available time period.

(c) 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.

(d) Immunogen CY estimates represent fiscal year-end (June) figures.

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:

Advaxis, Inc. (ADXS - OTC BB): NC
Agenus Inc. (AGEN - NASDAQ): NC
Agius Pharmaceuticals, Inc. (AGIO - NASDAQ): NC
Alexion Pharmaceuticals Inc. (ALXN - NASDAQ): NC
Ambit Biosciences Corporation (AMBI - NASDAQ): NC
Amgen Inc. (AMGN - NASDAQ): NC
Ariad Pharmaceuticals Inc. (ARIA - NASDAQ): NC
Array BioPharma, Inc. (ARRY - NASDAQ): NC
Biogen Idec (BIIB - NASDAQ): NC
bluebird bio, Inc. (BLUE - NASDAQ): NC
Celgene Corporation (CELG - NASDAQ): BUY
Celldex Therapeutics, Inc. (CLDX - NASDAQ): BUY
ChemoCentryx Inc. (CCXI - NASDAQ): NC
Clovis Oncology Inc. (CLVS - NASDAQ): NC
Coronado Biosciences Inc. (CNDO - NASDAQ): NC
Curis Inc. (CRIS - NASDAQ): NC
Cyclacel Pharmaceuticals, Inc. (CYCC - NASDAQ): NC
CytRx Corporation (CYTR - NASDAQ): NC
Dendreon Corporation (DNDN - NASDAQ): HOLD
Enanta Pharmaceuticals, Inc. (ENTA - NASDAQ): NC
Endocyte Inc. (ECYT - NASDAQ): NC
Epizyme, Inc. (EPZM - NASDAQ): NC
Exelixis Inc. (EXEL - NASDAQ): NC
Galena Biopharma (GALE - NASDAQ): SELL
Gilead Sciences Inc. (GILD - NASDAQ): NC
Heat Biologics, Inc. (HTBX - NASDAQ): BUY
ImmunoCellular Therapeutics Ltd. (IMUC - NASDAQ): NC
ImmunoGen, Inc. (IMGN - NASDAQ): HOLD
Incyte Corporation (INCY - NASDAQ): NC
Infinity Pharmaceuticals, Inc. (INFI - NASDAQ): NC
Inovio Pharmaceuticals, Inc. (INO - NYSE): NC
Intercept Pharmaceuticals, Inc. (ICPT - NASDAQ): NC
Medivation Inc. (MDVN - NASDAQ): NC
Merrimack Pharmaceuticals Inc. (MACK - NASDAQ): NC
NewLink Genetics Corporation (NLNK - NASDAQ): BUY
OncoMed Pharmaceuticals, Inc. (OMED - NASDAQ): NC
OncoSec Medical Inc. (ONCS - NASDAQ): NC
Oncothyreon Inc. (ONTY - NASDAQ): HOLD
Pharmacyclics Inc. (PCYC - NASDAQ): NC
Progenics Pharmaceuticals, Inc. (PGNX - NASDAQ): NC
Receptos, Inc. (RCPT - NASDAQ): NC
Regeneron Pharmaceuticals Inc. (REGN - NASDAQ): NC
Regulus Therapeutics Inc. (RGLS - NASDAQ): NC
Seattle Genetics, Inc. (SGEN - NASDAQ): SELL
Stemline Therapeutics, Inc. (STML - NASDAQ): NC
Sunesis Pharmaceuticals, Inc. (SNSS - NASDAQ): BUY
Synta Pharmaceuticals Corp. (SNTA - NASDAQ): NC
Tesarro, Inc. (TSRO - NASDAQ): NC
Verastem, Inc. (VSTM - NASDAQ): BUY
Vertex Pharmaceuticals Inc. (VRTX - NASDAQ): NC
Lonza (private)

Disclosures Appendix

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Cantor

Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [B]	82	56.55	20	24.39
HOLD [H]	51	35.17	8	15.69
SELL [S]	12	8.28	1	8.33