



COMPANY UPDATE

Medical Supplies & Devices: Cardiovascular

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Recommendation

Rating:	Outperform
Price Target (in \$):	15.00
Expected Return:	139.2%
Dividend:	NA
Enterprise Value (MM):	\$60.2

Revenue (MM)

	2012A	2013E	2014E
Q1	0.0	0.0A	0.5
Q2	0.0	0.0	1.1
Q3	0.0	0.1	1.4
Q4	0.0	0.3	1.4
FY	0.0	0.4	4.4

Stock Statistics as of 07/12/2013 (in \$)

Price:	\$6.27
52W Range:	\$14.54-\$4.85
Shares Out (MM):	12.4
Market Cap (MM):	\$77.7

Fundamentals

Earnings Per Share ('12A)	\$(1.98)
Earnings Per Share ('13E)	\$(1.54)
Earnings Per Share ('14E)	\$(1.26)
P/E ('12)	NM
P/E ('13)	NM
P/E ('14)	NM



SUNSHINE HEART (NYSE:SSH)

Milestone for C-Pulse Marks Clinical Development Progress

SSH announced in June the implantation of its proprietary C-Pulse system in the 25th patient, a milestone that represents a cumulative 25 years of active C-Pulse heart failure treatment. The latest update also included the status on the U.S. and European clinical trials.

SSH Clinical Trials Are Beginning to Break Free of the Red Tape

We view the center activation/enrollment update to be a positive, despite the modestly slower than anticipated pace. We are revising our model to reflect activation of 12 US centers (vs. 15 previously) and 6 Europe centers (vs. 7 previously) by the end of 2013. The impact is minimal, as SSH has broken through the center activation tape in both trials and enrolled 2 patients in Europe, which should be viewed as meaningful positives.

U.S. and European Trial Enrollment Now Positioned to Accelerate

Two centers have been activated for the U.S. FDA pivotal trial, with 10 additional sites in the activation process. The first C-Pulse implant in COUNTER HF is expected imminently. We now expect a total of 12 US centers to be activated before the end of 2013, 3 less than our previous estimate, with 20 patients enrolled and 10 randomized C-pulse implants. The European single arm post-market study (OPTIONS HF) currently has 4 active sites, with 2 patients implanted with the C-Pulse device. We expect another 11 C-Pulse implants in 2H'13 and the enrollment of 50 patients to be completed by the end of 2014.

The Promise of the C-Pulse System Is Beginning to Rise

We reiterate our Outperform rating on Sunshine Heart primarily due to our view that the C-Pulse could prove to be a disruptive solution for NYHA Class III and IV ambulatory CHF patients. Our DCF analysis suggests SSH's share price could more than double in the setting of FDA approval and meaningfully positive results from the EU post-approval study.

Please see addendum of this report for important disclosures.



US and Europe C-Pulse Clinical Development Programs Are Taking Positive Steps

C-Pulse system is a promising technology platform, which could prove to be a disruptive solution for NYHA Class III and IV ambulatory heart failure patients who are not responding to optimal medical therapy. The device achieved CE Mark in July 2012. Two trials are currently up and running: a US pivotal trial COUNTER HF and a Europe post-market study OPTIONS HF. Two centers have been activated for the COUNTER HF trial, with 10 additional sites in the activation process. Patient enrollment is expected to start in 3Q'13, with a target of 388 patients (144 in the C-Pulse arm). The OPTIONS HF trial currently has 4 sites activated. This single arm study plans to enroll a total of 50 patients. Two patients have enrolled and implanted with C-Pulse. Slower-than-expected activation rates have impacted our patient enrollment forecasts for the two trials, but we expect COUNTER HF to complete enrollment by the end of 2015 and OPTIONS HF to end by 2014. However, with 10 incremental centers in the US and multiple clinical sites in Europe lined up for activation, SSH should experience an accelerated enrollment pace in 2H'13.

Positive Clinical Data Will Drive Valuation

In our previous note in May, we reported 2 US center activations (vs. 2 in the update) for the COUNTER HF trial and 1 European center activation (vs. 4 in the update) for the OPTIONS HF trial. At the time, we projected 5 US centers and 4 Europe center activations by the end of 2Q'13 (15 US and 7 Europe for full year 2013). Based on the latest announcement, we are revising the activation number for US and Europe to 2 and 4, respectively, for 2Q'13 (12 and 6 for full-year 2013). The resulting impact on SSH's top line should not concern investors, as FDA approval and positive clinical data out of the European trial are the keys which will unlock the C-Pulse's technology value. Our valuation comes in at \$15/share based on a probability-adjusted DCF.

C-Pulse's Overall Neurologic Safety Profile Remains Impressive

Based on the available patient data, C-Pulse has demonstrated promising safety profile. For the 25 patients implanted with C-Pulse, none of the subjects have recorded a neurologic event such as stroke or transient ischemic attack. The fact that C-Pulse does not contact the blood stream nor requires blood thinning agents is clearly an advantage over other available treatments. Investors have cited stroke risk as a potential concern due to fear that the repeated contraction of the aortic root could dislodge plaque or calcifications. This pristine neurologic safety record should help reduce those concerns.

More C-Pulse Weaning Events Will Provide Further Efficacy Support

SSH's C-Pulse System generated intriguing initial data in a 20 patient North American feasibility trial. The study results showed that patients had a material reduction in NYHA Class over twelve months. In addition, patients experienced a material upgrade in quality of life and an improvement in six-minute walk time. Impressively, two super responder patients were weaned off the C-Pulse system and ultimately disconnected from it due to a lack of CHF symptoms. This preliminary data set provided an initial level of evidence that the C-Pulse System provides a level of symptomatic relief and delayed the progression of heart failure in select patients. Physician feedback on the C-Pulse system has been favorable. The feasibility



study trial's lead investigator William Abraham stated publicly, "Every technology that has ever shown to be effective in heart failure had a 10% super responder rate. You cannot argue that something significant occurred here." SSH has recently reported that an additional 2 patients are being targeted for weaning from the device, based on the improvement in CHF symptoms. We view this development as another positive for the efficacy profile of C-Pulse, which could translate into deeper physician traction going forward.

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Exhibit 1. Sunshine Heart Income Statement

SUNSHINE HEART INCOME STATEMENT	2011	2012	1Q13	2Q13E	3Q13E	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E	2017E	2018E
C-Pulse Products and Service	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.5	1.1	1.4	1.4	4.4	8.3	9.5	22.8	47.0
Total Revenue	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.3	\$0.4	\$0.5	\$1.1	\$1.4	\$1.4	\$4.4	\$8.3	\$9.5	\$22.8	\$47.0
% y/y growth			NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	88.6%	14.9%	139.2%	106.3%
Cost of Goods Sold	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.2	\$0.4	\$0.4	\$1.0	\$1.1	\$1.1	\$3.6	\$6.7	\$7.6	\$16.0	\$26.9
% of sales			NM	85.0%	85.0%	85.0%	85.0%	84.0%	83.0%	82.0%	81.0%	82.2%	81.0%	79.5%	70.4%	57.2%
Gross Profit	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.2	\$0.3	\$0.3	\$0.8	\$1.6	\$2.0	\$6.8	\$20.1
% margin	NM	NM	5.0%	5.0%	15.0%	15.0%	15.0%	16.0%	17.0%	18.0%	19.0%	17.8%	19.0%	20.5%	29.6%	42.8%
SG&A	\$5.4	\$6.9	\$2.0	\$2.0	\$2.1	\$2.1	\$8.2	\$2.2	\$2.2	\$2.3	\$2.3	\$9.0	\$6.7	\$7.7	\$11.7	\$11.2
% of sales	NM	NM	NM	NM	NM	NM	1,928.6%	100.0%	85.0%	75.0%	65.0%	205.2%	80.6%	81.3%	51.5%	23.8%
R&D	\$11.2	\$8.0	\$2.4	\$2.4	\$2.4	\$2.4	\$9.7	\$2.7	\$2.7	\$2.7	\$2.7	\$10.7	\$7.2	\$7.9	\$8.9	\$7.5
% of sales	NM	NM	NM	NM	NM	NM	NM	125.0%	115.0%	100.0%	100.0%	242.8%	86.6%	83.2%	38.9%	16.0%
Operating Income	(\$16.6)	(\$14.9)	(\$4.4)	(\$4.5)	(\$4.5)	(\$4.5)	(\$17.8)	(\$4.8)	(\$4.7)	(\$4.7)	(\$4.7)	(\$18.9)	(\$12.3)	(\$13.7)	(\$13.9)	\$1.4
% margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	3%
Adjusted EBITDA	(\$15.6)	(\$13.5)	(\$4.0)	(\$4.0)	(\$4.0)	(\$4.0)	(\$16.0)	(\$4.2)	(\$4.1)	(\$4.0)	(\$4.0)	(\$16.3)	(\$8.5)	(\$8.2)	(\$5.9)	\$13.0
% margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	27.7%
Interest/Other Expense (Income)	(\$0.3)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.1)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.0)	(\$0.2)	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.2)
Pretax Income	(\$16.3)	(\$14.8)	(\$4.4)	(\$4.4)	(\$4.5)	(\$4.5)	(\$17.8)	(\$4.7)	(\$4.7)	(\$4.7)	(\$4.7)	(\$18.8)	(\$12.2)	(\$13.6)	(\$13.7)	\$1.6
% margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	3.3%
Income taxes (benefit)	(\$0.1)	(\$0.8)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	(\$2.5)	\$0.5
Tax Rate	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	30.0%
GAAP Net Income	(\$16.2)	(\$14.1)	(\$4.4)	(\$4.4)	(\$4.5)	(\$4.5)	(\$17.8)	(\$4.7)	(\$4.7)	(\$4.7)	(\$4.7)	(\$18.8)	(\$12.2)	(\$13.6)	(\$11.2)	\$1.1
One-Time Items	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
Adjusted Net Income	(\$16.2)	(\$14.1)	(\$4.4)	(\$4.4)	(\$4.5)	(\$4.5)	(\$17.8)	(\$4.7)	(\$4.7)	(\$4.7)	(\$4.7)	(\$18.8)	(\$12.2)	(\$13.6)	(\$11.2)	\$1.1
% margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	2.3%
GAAP EPS	(2.98)	(1.98)	(\$0.47)	(\$0.36)	(\$0.36)	(\$0.36)	(\$1.54)	(\$0.37)	(\$0.36)	(\$0.27)	(\$0.27)	(\$1.26)	(\$0.67)	(\$0.69)	(\$0.55)	\$0.05
% y/y growth	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Adjusted EPS	(2.98)	(1.98)	(\$0.47)	(\$0.36)	(\$0.36)	(\$0.36)	(\$1.54)	(\$0.37)	(\$0.36)	(\$0.27)	(\$0.27)	(\$1.26)	(\$0.67)	(\$0.69)	(\$0.55)	\$0.05
% y/y growth	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Basic Shares (MM)	5.4	7.1	9.4	12.4	12.5	12.6	11.7	12.8	13.0	17.5	17.7	15.2	18.2	19.8	20.3	20.8
Diluted Shares (MM)	5.4	7.1	9.4	12.4	12.5	12.6	11.7	12.8	13.0	17.5	17.7	15.2	18.2	19.8	20.3	20.8

Source: Cowen and Company

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Exhibit 2. Sunshine Heart C-Pulse Revenue Build

Sunshine Heart C-Pulse System Revenue Build																													
US Indicators for C-Pulse																													
CFR % of Ambulatory Class (WV) CFR																													
	2011	2012E	1Q13	2Q13E	3Q13E	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E			
CFR Patients Class III or IV(a)	1,450,000	1,451,450	1,454,353	1,454,353	1,454,353	1,454,353	1,454,353	1,458,718	1,458,718	1,458,718	1,458,718	1,458,718	1,464,501	1,471,874	1,479,233	1,486,592	1,493,952	1,501,312	1,508,672	1,516,032	1,523,392	1,530,752	1,538,112	1,545,472	1,552,832	1,560,192	1,567,552		
% y/y growth	0.0%	0.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	
C-Pulse % Penetration of CFR Class III/IV(a)	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%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
C-Pulse Procedures	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	
C-Pulse ASP	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$49,500	\$49,500	\$49,500	\$49,500	\$49,500	\$48,000	\$46,500	\$45,000	\$43,500	\$42,000	\$40,500	\$39,000	\$37,500	\$36,000	\$34,500	\$33,000	\$31,500	\$30,000	\$28,500	\$27,000	\$25,500	
U.S. C-Pulse Implant Sales (\$MM)	\$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	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
y/y growth %	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
Europe Indicators for C-Pulse																													
CFR % of Ambulatory Class (WV) CFR																													
	2011	2012E	1Q13	2Q13E	3Q13E	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E			
CFR Patients Class III or IV(a)	3,700,000	3,718,500	3,737,000	3,737,000	3,737,000	3,737,000	3,755,778	3,755,778	3,755,778	3,755,778	3,755,778	3,774,557	3,793,430	3,812,303	3,831,176	3,850,050	3,868,923	3,887,796	3,906,670	3,925,543	3,944,416	3,963,289	3,982,162	4,001,035	4,019,908	4,038,781	4,057,654	4,076,527	
% y/y growth	0.0%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	
C-Pulse % Penetration of CFR Class III/IV(a)	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%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
C-Pulse Procedures	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	
C-Pulse ASP	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	
European C-Pulse Implant Sales (\$MM)	\$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	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
y/y growth %	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
NW C-Pulse Commercial Sales (\$MM)																													
	2011	2012E	1Q13	2Q13E	3Q13E	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E			
NW C-Pulse Commercial Sales (\$MM)	\$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	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
y/y growth %	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
C-Pulse US Clinical Trial Revenue																													
C-Pulse US Clinical Trial Revenue																													
	2012E	1Q13	2Q13E	3Q13E	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E																
Centers at Start	0	1	2	3	4	5	12	20	25	30	32	35	40																
Centers at End	1	2	3	4	5	6	16	23	28	33	34	38	40																
Average Centers per Patient	1	2	1.5	1.3	1.2	1.2	1.3	1.1	1.1	1.1	1.1	1.1	1.1																
Months in Patient	3.0	3.0	3.0	3.0	3.0	12.0	3.0	3.0	3.0	3.0	12.0	12.0	12.0																
Patients Enrolled	0	0	3	6	9	21	24	24	24	24	148	219	0																
Enrollment per Center per Month	NM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																
Total Enrollment	0	0	3	6	9	21	24	24	24	24	148	219	0																
C-Pulse Implant Procedures	0	0	0	0	0	10	12	17	21	24	14	117	0																
C-Pulse Reimbursed Implant Procedures	0	0	0	0	0	7	8	12	14	17	12	77	0																
C-Pulse ASP	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000																
C-Pulse Implant Sales	\$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																
U.S. IDE Patient Total Sales (\$MM)	\$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																
y/y growth %	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM																
C-Pulse European Clinical Trial Revenue																													
C-Pulse European Clinical Trial Revenue																													
	2012E	1Q13	2Q13E	3Q13E	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E																
Centers at Start	0	1	2	3	4	5	7	8	9	10	8	0	0																
Centers at End	1	2	3	4	5	6	7	8	9	10	10	0	0																
Average Centers per Patient	1	2	1.5	1.3	1.2	1.2	1.3	1.1	1.1	1.1	1.1	1.1	1.1																
Months in Patient	3.0	3.0	3.0	3.0	3.0	12.0	3.0	3.0	3.0	3.0	12.0	12.0	12.0																
Patients Enrolled	0	0	3	6	9	21	24	24	24	24	148	219	0																
Enrollment per Center per Month	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																
Total Enrollment	0	0	3	6	9	21	24	24	24	24	148	219	0																
C-Pulse Implant Procedures	0	0	0	0	0	10	12	17	21	24	14	117	0																
C-Pulse Reimbursed Implant Procedures	0	0	0	0	0	7	8	12	14	17	12	77	0																
C-Pulse ASP	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000																
C-Pulse Implant Sales	\$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																
European Profit-Market Total Sales (\$MM)	\$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																
Global C-Pulse Sales for Trials (\$MM)	\$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																
y/y growth %	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM																
C-Pulse Estimated Quarterly Revenue (\$MM)																													
	2011	2012E	1Q13	2Q13E	3Q13E	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E			
US C-Pulse Commercial Sales	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
US C-Pulse Commercial Sales	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
US C-Pulse Commercial Sales	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
US C-Pulse Clinical Trial Sales	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total C-Pulse Sales	\$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	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
y/y growth %	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	

Source: Cowen and Company

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Exhibit 3. Sunshine Heart Cash Flow Statement and Balance Sheet

SUNSHINE HEART CASH FLOW STATEMENT	2011	2,012	1Q13	2Q13E	3Q13E	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E	2015E
Net Income	(\$16.2)	(\$14.1)	(\$4.4)	(\$4.4)	(\$4.5)	(\$4.5)	(\$17.8)	(\$4.7)	(\$4.7)	(\$4.7)	(\$4.7)	(\$18.8)	(\$12.2)
Depreciation & Amort.	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.2
Loss on disposal of plant and equipment	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Stock-Based Compensation	0.9	1.2	0.4	0.4	0.4	0.5	1.7	0.5	0.6	0.7	0.7	2.5	3.7
Change in Acc. Receivable	0.3	0.0	0.0	0.0	(0.1)	(0.0)	(0.1)	(0.2)	(0.3)	(0.1)	0.0	(0.6)	0.2
Change in Inventory	0.0	0.0	0.0	0.0	(0.1)	(0.0)	(0.1)	0.0	(0.1)	(0.0)	0.0	(0.1)	(0.4)
Change in Other Current Assets	(0.2)	0.0	(0.2)	(0.1)	0.4	(0.0)	0.1	0.0	(0.3)	(0.1)	0.0	(0.3)	(0.7)
Change in Accounts Payable and Accrued Expenses	2.0	(0.8)	(0.1)	0.0	(1.3)	0.7	(0.7)	0.4	2.4	0.3	(0.6)	2.4	0.4
Cash flow from Operations	(\$13.1)	(\$13.1)	(\$4.1)	(\$4.1)	(\$5.0)	(\$3.3)	(\$16.5)	(\$3.9)	(\$2.3)	(\$4.0)	(\$4.6)	(\$14.8)	(\$8.9)
Capital Expenditure	(0.5)	(0.2)	(0.0)	(0.1)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.2)	(0.8)	(0.8)
Cash flow from Investing	(\$0.5)	(\$0.2)	(\$0.0)	(\$0.1)	(\$0.2)	(\$0.2)	(\$0.5)	(\$0.2)	(\$0.2)	(\$0.2)	(\$0.2)	(\$0.8)	(\$0.8)
Issuance of Common Stock	7.6	20.8	0.9	12.0	0.0	0.0	12.9	0.0	0.0	30.0	0.0	30.0	0.0
Cash flow from Financing	\$7.6	\$20.8	\$0.9	\$12.0	\$0.0	\$0.0	\$12.9	\$0.0	\$0.0	\$30.0	\$0.0	\$30.0	\$0.0
Foreign Exchange Rate Adj.	0.1	0.1	(0.0)	0.0	0.0	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0
Net change in cash balance	(\$5.8)	\$7.7	(\$3.3)	\$7.8	(\$5.2)	(\$3.5)	(\$4.2)	(\$4.1)	(\$2.6)	\$25.8	(\$4.8)	\$14.4	(\$9.8)
Cash balance, BoP	\$12.4	\$6.6	\$14.2	\$11.0	\$18.8	\$13.5	\$14.2	\$10.0	\$5.9	\$3.4	\$29.2	\$10.0	\$24.4
Cash balance, EoP	\$6.6	\$14.2	\$11.0	\$18.8	\$13.5	\$10.0	\$10.0	\$5.9	\$3.4	\$29.2	\$24.4	\$24.4	\$14.6
Cash flow from Operations	(\$13.1)	(\$13.1)	(\$4.1)	(\$4.1)	(\$5.0)	(\$3.3)	(\$16.5)	(\$3.9)	(\$2.3)	(\$4.0)	(\$4.6)	(\$14.8)	(\$8.9)
Less: Capital Expenditures	(0.5)	(0.2)	(0.0)	(0.1)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.2)	(0.8)	(0.8)
Free Cash Flow	(\$13.5)	(\$13.2)	(\$4.1)	(\$4.2)	(\$5.2)	(\$3.5)	(\$17.1)	(\$4.1)	(\$2.6)	(\$4.2)	(\$4.8)	(\$15.6)	(\$9.8)
Free Cash Flow Per Share	(\$2.49)	(\$1.87)	(\$0.44)	(\$0.34)	(\$0.42)	(\$0.28)	(\$1.46)	(\$0.32)	(\$0.20)	(\$0.24)	(\$0.27)	(\$1.02)	(\$0.54)

Source: Cowen and Company estimates; Company filings and transcripts

SUNSHINE HEART BALANCE SHEET	2011	2,012	1Q13	2Q13E	3Q13E	4Q13E	2013E	1Q14E	2Q14E	3Q14E	4Q14E	2014E	2015E
Assets													
Cash and Equivalents	\$6.6	\$14.2	\$11.0	\$18.8	\$13.5	\$10.0	\$10.0	\$5.9	\$3.4	\$29.2	\$24.4	\$24.4	\$14.6
Accounts Receivable	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.6	0.7	0.7	0.7	0.5
Inventories	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.6
Other Current Assets	0.3	0.3	0.5	0.6	0.2	0.2	0.2	0.2	0.5	0.6	0.5	0.5	1.2
Total Current Assets	\$6.9	\$14.6	\$11.5	\$19.4	\$13.9	\$10.4	\$10.4	\$6.5	\$4.6	\$30.7	\$25.9	\$25.9	\$17.0
Property, Plant and Equipment	0.5	0.5	0.4	0.5	0.7	0.9	0.9	1.0	1.2	1.4	1.5	1.5	2.2
Total Assets	\$7.4	\$15.0	\$11.9	\$19.9	\$14.6	\$11.3	\$11.3	\$7.5	\$5.8	\$32.0	\$27.4	\$27.4	\$19.2
Liabilities & Equity													
Accounts Payable	1.9	1.2	1.6	1.6	0.4	0.9	0.9	1.1	2.6	2.8	2.5	2.5	2.0
Accrued Expenses and Other	1.0	0.9	0.4	0.4	0.3	0.5	0.5	0.7	1.6	1.7	1.4	1.4	2.2
Total Current Liabilities	\$2.8	\$2.1	\$2.0	\$2.0	\$0.7	\$1.4	\$1.4	\$1.8	\$4.2	\$4.5	\$3.8	\$3.8	\$4.2
Long-Term Debt and Other	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
Total Liabilities	\$2.8	\$2.1	\$2.0	\$2.0	\$0.7	\$1.4	\$1.4	\$1.8	\$4.2	\$4.5	\$3.8	\$3.8	\$4.2
Stockholder Equity	4.6	12.9	9.9	17.9	13.9	9.9	9.9	5.7	1.6	27.6	23.6	23.6	15.0
Total Liabilities & Shareholders' Equity	\$7.4	\$15.0	\$11.9	\$19.9	\$14.6	\$11.3	\$11.3	\$7.5	\$5.8	\$32.0	\$27.4	\$27.4	\$19.2

Source: Cowen and Company

Cowen and Company, LLC

Exhibit 4. Sunshine Heart DCF Valuation

SUNSHINE HEART DISCOUNTED CASH FLOW ANALYSIS (\$MM)											
	2012	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
SSH - Revenue											
Total US Sales	-	0.4	3.1	4.5	-	6.0	17.0	32.3	54.0	81.2	114.8
Total EU Sales	-	-	1.3	3.8	9.5	16.8	30.0	50.9	71.0	100.5	139.0
Total Revenue to SSH (\$MM)	\$0.0	\$0.4	\$4.4	\$8.3	\$9.5	\$22.8	\$47.0	\$83.2	\$125.0	\$181.8	\$253.8
% increase y/y								77%	50%	45%	40%
COGS											
% of sales	-	85%	82%	81%	79%	70%	57%	40%	30%	30%	29%
Gross Profit		\$0.1	\$0.8	\$1.6	\$2.0	\$6.8	\$20.1	\$49.8	\$87.3	\$127.6	\$179.2
% GM		15%	18%	19%	21%	30%	43%	60%	70%	70%	71%
R&D											
% revenues	\$8.0	\$9.7	\$10.7	\$7.2	\$7.9	\$8.9	\$7.5	\$8.3	\$10.0	\$12.7	\$15.2
	NM	NM	NM	87%	83%	39%	16%	10%	8%	7%	6%
SG&A											
% revenues	\$6.9	\$8.2	\$9.0	\$6.7	\$7.7	\$11.7	\$11.2	\$16.6	\$18.8	\$21.8	\$27.9
	NM	NM	NM	81%	81%	52%	24%	20%	15%	12%	11%
Tax adjusted EBIT	(\$14.9)	(\$17.8)	(\$18.9)	(\$12.3)	(\$13.7)	(\$13.9)	\$1.2	\$18.6	\$41.0	\$65.2	\$95.3
Tax rate	0%	0%	0%	0%	0%	0%	15%	25%	30%	30%	30%
Less: CapEx											
% revenues	(\$0.2)	(\$0.5)	(\$0.8)	(\$0.8)	(\$0.8)	(\$0.8)	(\$1.4)	(\$2.5)	(\$3.8)	(\$5.5)	(\$7.6)
	NM	126%	19%	10%	9%	4%	3%	3%	3%	3%	3%
Less: Working Capital											
% revenues	(\$0.7)	(\$0.7)	\$1.3	(\$0.5)	\$0.9	\$1.1	\$1.5	(\$0.8)	(\$1.3)	(\$1.8)	(\$2.5)
	NM	-173%	31%	-6%	9%	5%	3%	-1%	-1%	-1%	-1%
SSH Free Cash Flow	(\$15.8)	(\$19.1)	(\$18.4)	(\$13.6)	(\$13.7)	(\$13.6)	\$1.3	\$15.3	\$36.0	\$57.9	\$85.1
% y/y growth								1060%	136%	61%	47%
PV of SSH FCF	(\$16.6)	(\$18.3)	(\$16.0)	(\$10.7)	(\$9.7)	(\$8.8)	\$0.8	\$8.1	\$17.4	\$25.4	\$33.9

Discount Rate	10%
Perpetual Growth Rate	3%
Final year FCF	\$52
Terminal Value	\$783
Discount Factor	0.30
Present Value of Terminal Value	\$233
Present Value of Cash Flows	\$166
Enterprise Value	\$400
Plus: Cash	\$17
Public Equity Value	\$417
Fully Diluted Shares Outstanding	18.4
Present Value of Cash Flows Per Share	\$23
<i>Probability of success for the U.S. IDE Pivotal Trial</i>	66%
Probability of Success	66%
NPV of SSH (probability-adjusted)	\$15
Current share price (9/7/12)	\$6.91
% Upside	117%

Source: Cowen and Company



Valuation Methodology & Investment Risks

Valuation Methodology

Our valuation methodology is primarily based on current year and forward year EV/Sales and EV/EBITDA multiples, as well as current year and forward P/E multiples, total return/PE ratio, market cap/free cash flow metrics, and dividend yield comps.

Investment Risks

(1) continued utilization pressure in the U.S. as Accountable Care Organizations play a bigger role in health care delivery; (2) competitive dynamics globally; (3) potential regulatory delays, rejections, or failures of devices in clinical trials; (4) economic sensitivity, pricing pressures and/or weakening consumer demand in developed markets; (5) economic and/or political uncertainty in emerging markets; (6) intellectual property challenges.

Company Specific Risks

(1) slow enrollment in both the U.S. pivotal trial and European post marketing trial (2) future competitive dynamics globally; (3) potential regulatory delays, rejections, or failures of devices in clinical trials; (4) delay in European C-Pulse adoption trends.



Addendum

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Outperform (1): The stock is expected to achieve a total positive return of at least 15% over the next 12 months

Market Perform (2): The stock is expected to have a total return that falls between the parameters of an Outperform and Underperform over the next 12 months

Underperform (3): Stock is expected to achieve a total negative return of at least 10% over the next 12 months

Assumption: The expected total return calculation includes anticipated dividend yield

Cowen and Company Rating System until May 25, 2013

Outperform (1): Stock expected to outperform the S&P 500

Neutral (2): Stock expected to perform in line with the S&P 500

Underperform (3): Stock expected to underperform the S&P 500

Assumptions: Time horizon is 12 months; S&P 500 is flat over forecast period

Cowen Securities, formerly known as Dahlan Rose & Company, Rating System until May 25, 2013

Buy – The fundamentals/valuations of the subject company are improving and the investment return is expected to be 5 to 15 percentage points higher than the general market return

Sell – The fundamentals/valuations of the subject company are deteriorating and the investment return is expected to be 5 to 15 percentage points lower than the general market return

Hold – The fundamentals/valuations of the subject company are neither improving nor deteriorating and the investment return is expected to be in line with the general market return

COWEN AND COMPANY RATING ALLOCATION

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Rating	Count	Ratings Distribution	Count	IB Services/Past 12 Months
Buy (a)	380	58.37%	48	12.63%
Hold (b)	247	37.94%	2	0.81%
Sell (c)	24	3.68%	1	4.17%

(a) Corresponds to "Outperform" rated stocks as defined in Cowen and Company, LLC's rating definitions. (b) Corresponds to "Market Perform" as defined in Cowen and Company, LLC's ratings definitions. (c) Corresponds to "Underperform" as defined in Cowen and Company, LLC's ratings definitions.

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Legend for Price Chart:

I = Initiation | 1 = Outperform | 2 = Market Perform | 3 = Underperform | T = Terminated Coverage | \$xx = Price Target | NA = Not Available

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