

Sunshine Heart, Inc. (SSH)

SSH Releases 3Q12.

November 9, 2012

SUMMARY

Last evening SSH press released 3Q12 financial results. SSH hit a number of important milestones in the third quarter and the fourth quarter is shaping up well too. Major milestones for 4Q include receipt of IDE and initiation of the US pivotal trial, and announcement of sites for the EU post-marketing study. Reported results were both better and worse than we had anticipated given slight delay in the US pivotal enrollment and the EU launch. No revenues were generated in the quarter, but more importantly expenses were therefore much lighter than we had forecast. SSH exited the quarter with \$17.4MM in cash. We remain excited about the large market opportunity for C-Pulse and its status as a novel device for the 1 MM global heart failure patients that have failed drug therapy and not yet candidates for transplants. We reiterate our BUY rating and \$26 price target.

EVENT

SSH press released 3Q12 results last night

INTERPRETATION

C-Pulse is a novel and differentiated implantable cardiac assist device with little direct competition. Unlike traditional cardiac assist devices, C-Pulse is implanted via a simple minimally invasive surgical procedure, does not require a burdensome support infrastructure build out, does not touch the blood, and is a viable treatment option for many of the 1.1+ million class III/IVa HF patients not responding to typical clinical therapies. We believe SSH is meaningfully undervalued when compared to other vascular assist device companies at this stage in their product development cycle, and more specifically HTWR. When Heartware (HTWR-\$89.21-NR) received CE-Mark approval in January 2009, it had a market cap of \$200MM, and an enterprise value of \$170MM. Given its US listing, current cash balance and growing demand for vascular assist devices we see little reason why SSH should not currently trade at a similar valuation.

ACTION

We are reiterating our BUY rating on SSH and price target of \$26.

SSH

Rating: BUY

Price Target: \$26

Market Data

Price:	\$6.26
52-week high:	\$22.90
52-week low:	\$2.50
Shares out:	9.15MM
Shares short:	109.19K
Average volume (10-day):	36,914

Valuation Metrics

Market cap:	\$57.29MM
Enterprise value:	\$57.08MM
Book value/share:	\$0.20

Financial Highlights

Cash/equivalents:	\$1.77MM
Debt:	\$0.00

REV (\$MM)	2011A	2012E	2013E
Q1	-	-	1,086
Q2	-	-	1,448
Q3	-	-	1,590
Q4	-	570	2,020
FY	-	570	6,144

EPS (\$)	2011A	2011E	2012E
Q1	(0.55)	(0.66)	(0.45)
Q2	(0.68)	(0.42)	(0.36)
Q3	(0.78)	(0.42)	(0.12)
Q4	(0.87)	(0.63)	0.43
FY	(2.98)	(2.13)	(2.59)

One-Year History



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INVESTMENT THESIS

C-Pulse is a unique offering in the multi-billion-dollar heart failure market. C-Pulse is a novel and differentiated implantable cardiac assist device with little direct competition. Unlike traditional cardiac assist devices, C-Pulse is implanted via a simple minimally invasive surgical procedure, does not require a burdensome support infrastructure build out, does not touch the blood, and is a viable treatment option for many of the 1.1+ million class III/IVa HF patients not responding to typical clinical therapies.

VALUATION

Using a comparative analysis, heart failure companies developing circulatory support products have traditionally traded between \$200-300MM after presenting positive feasibility data. Given the positive feasibility data that SSH has presented and the imminent initiation of a US pivotal trial, we believe a \$250MM valuation is reasonable. With 9.58 million fully diluted shares outstanding, we value each SSH share at \$26.

PIVOTAL TRIAL IDE RECEIVED

Early in 4Q the FDA approved SSH Pivotal Trial IDE and we expect implantation to begin shortly. By filing an amendment to the feasibility trial protocol with the IRB at two of the hospitals that participated in the feasibility study, SSH can accelerate initiation of the pivotal trial in the US and plans to do so.

SSH currently anticipates a 26 month enrollment period with follow up taking an additional year.

EUROPEAN LAUNCH AND POST MARKETING STUDY

SSH received CE Mark approval on July 25, 2012 and continues to evaluate its strategic plan for European launch. Originally SSH was to target three centers in Germany and three centers in Italy. While reimbursement in Italy will be quicker (they have to implant about five units and will then be eligible to be reimbursed under existing LVAD codes) volume in Italy is much lower than Germany where achieving reimbursement will take much longer (about another 16 months). The company is currently has options in Germany and if they are successful in bringing some high volume centers on board, most of the European commercial resources will be focused to getting these sites fully operational and supported until reimbursement is in place.

SSH will soon make public the sites selected to conduct the trial and we anticipate enrollment to begin before year end.

MARKET OPPORTUNITY

Heart failure is a deadly disease

Heart failure is a terrible and debilitating disease for which there is no cure. It is progressive and always ends in death. As patients become sicker, they become more and more incapacitated and begin to suffer from numerous other conditions brought about by the slow failure of other organs, because the heart is unable to supply them with sufficient blood flow, bringing oxygen and nutrients and taking away toxic byproducts. Treatment usually begins with drugs to increase the heart's pumping efficiency, then moves to pacemakers and CRT-D devices, progressing to VADs and transplants. The sole aim of all these therapies is to maintain an adequate blood flow through the body to ensure the body is sufficiently oxygenated and cleared of waste products. While initial treatment is relatively inexpensive, treating late-stage heart failure and patients dying from heart failure is very expensive and places a tremendous burden on healthcare resources — both financial and labor. An estimated \$39.2B was spent in the US in 2010 on direct and indirect medical costs associated with heart failure.

The primary way to classify heart failure is using the New York Heart Association functional classification system, which is detailed below.

Figure 3. NYHA Functional Classification

Class	Patient Symptoms
Class I (Mild)	No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, or dyspnea (shortness of breath).
Class II (Mild)	Slight limitation of physical activity. Comfortable at rest, but ordinary activity causes fatigue, palpitation, or dyspnea.
Class III (Moderate)	Marked limitation of physical activity. Comfortable at rest, but less than ordinary activity causes fatigue, palpitation, or dyspnea.
Class IV (Severe)	Unable to carry out any physical activity without discomfort. Symptoms of cardiac insufficiency at rest. If any physical activity is undertaken, discomfort is increased.

Source: Heart Failure Society of America

The Interagency Registry for Mechanically Assisted Circulatory Support (INTERMACS) coordinators' council felt the NYHA class IV did not offer an adequate description to allow patients to make an educated decision on which therapy would best suit them. Level I is the most serious form of heart failure, which requires immediate intervention. Level 7 profiles patients who are in an advanced NYHA class III and who are able to maintain some form of activity, but may require monitoring. Patients in INTERMACS profile 3 tend to include stable patients who are on a temporary circulatory support device, such as VAD.

Figure 4. INTERMACS Clinical Profiles

INTERMACS Profiles of Heart Failure	Time Frame For Intervention
1. Critical Cardiogenic Shock	Within Hours
2. Progressive Decline	Within a Few Days
3. Stable but Inotrope Dependent	Elective over a period of weeks to months
4. Resting Symptoms	Elective over a period of weeks to months
5. Exertion Intolerant	Variable Urgency
6. Exertion Limited	Variable Urgency
7. Advanced NYHA III	Transplantation or Circulatory Support

Source: Stevenson, et al. *Jrnl Heart Lung Transp.* 2009

Heart failure is an exploding epidemic

According to the American Heart Association, roughly 2% of the US population, or 5.7 million people, are affected by heart failure, and there are an estimated 670,000 new cases diagnosed each year. Almost 30% of all heart failure patients are below the age of 60.

Of the estimated 5.7 million heart failure patients in the US, roughly 3.8 million are classified with NYHA class I and II heart failure, and 1.5 million are classified as having NYHA class III heart failure, with 400K having NYHA class IV heart failure. Of the NYHA class III population, about 400-600K are candidates for cardiac resynchronization therapy (CRT-D), and a very small portion are candidates for VAD (100K). As there is a terrible shortage of donor hearts available, many class IV patients are left without treatment options and become candidates for VAD therapy.

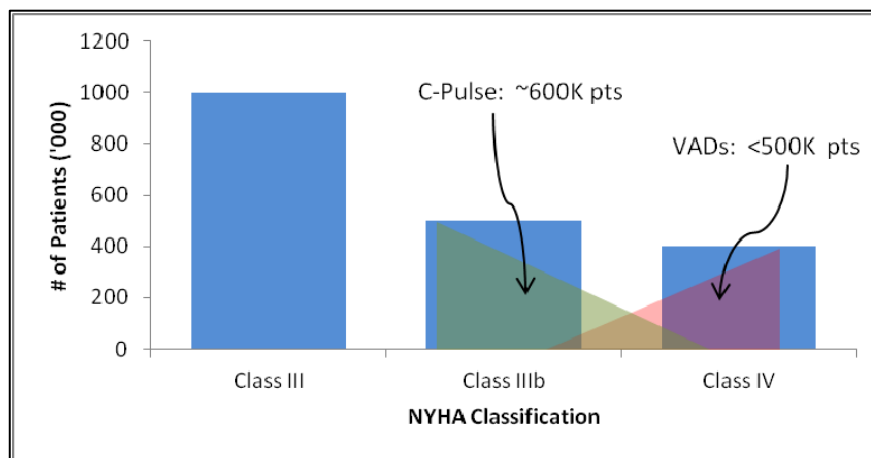
The applicable market for C-Pulse

CRT-D and VAD are currently the only approved/available non-drug therapies for late-stage (NYHA class III and IV) heart failure patients. While effective, these therapies are applicable to only the “less severe late-stage patients” (CRT-D) and the “very severe late-stage patients” (VAD), leaving the vast majority of these late-stage patients, NYHA class IIIb, or “interim patients” as we refer to them, without a plausible treatment option.

A low maintenance, implantable device that restores cardiac circulation and enables a return to normal daily living will be of great medical value to these “interim patients,” and it should find significant use. Such a device will likely also reduce the considerable cost burden of heart failure, as the vast majority of heart failure expenses are incurred during the latter stages of the disease.

SSH’s C-Pulse is such a device, and it offers a unique and novel treatment option for “interim patients.” C-Pulse: 1) is easily implanted through a minimally invasive approach, 2) does not come into contact with the blood stream, 3) does not require cumbersome anti-clotting drug therapy, and 4) allows patients to function normally. C-Pulse is designed around the well understood concept of counterpulsation. Counterpulsation has been used for decades, during surgery and to treat conditions such as cardiogenic shock, to increase cardiac output, and reduce the heart’s pumping load.

Figure 5. Applicable US Market

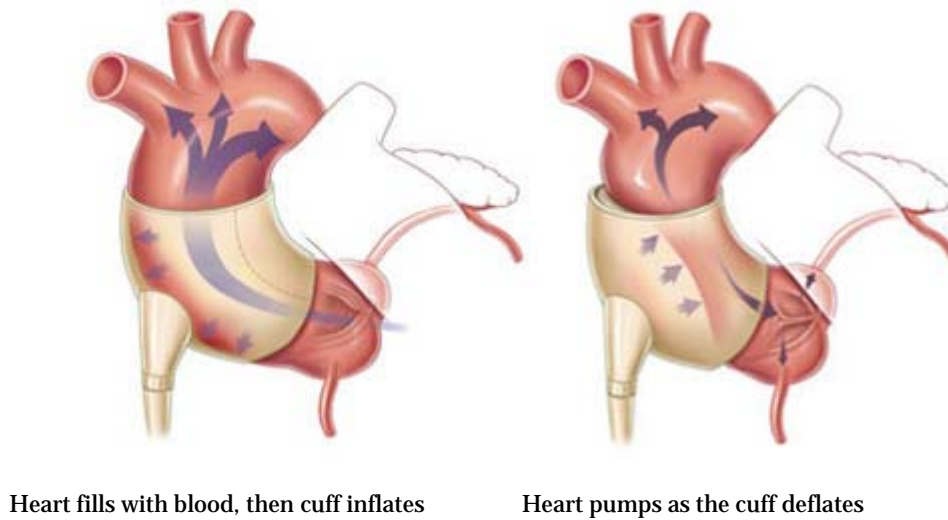


Assuming the addressable global market of “interim patients” in the NYHA class IIIb or IVa approximates one million patients and the average cost of an implanted device to treat heart failure approaches \$25,000, the global market opportunity for such a device exceeds \$25B. With typical medical device penetration running around 7-10% of the total addressable market, the “real market opportunity” for C-Pulse falls in the \$1-3B range.

With time and data, it is not unrealistic to envisage C-Pulse being a therapy for earlier-stage NYHA class III patients and less severe NYHA class IV patients. In this case, the global applicable market for C-Pulse could approximate \$5B.

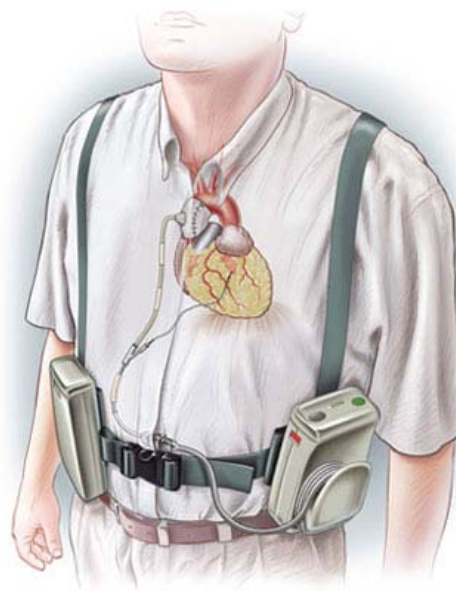
C-PULSE

The C-Pulse system is used to assist patients with class III or ambulatory class IV heart failure. This system is based on the balloon counterpulsation technology, which reduces the amount of work the left ventricle has to do. As the balloon deflates, the workload required by the heart to pump the blood is reduced. As the balloon inflates, blood flow is increased to the coronary arteries. Similar to a pacemaker, the inflation and deflation pattern is synchronized by the patient’s electrocardiograph. This device is run by a power source outside the body.

Figure 6. Diagram of C-Pulse

Source: Sunshine Heart

The electrocardiograph and cuff are connected to an external (outside the body) driver by a single wire or line that runs through a percutaneous interface lead. The driver is a battery pack that can be disconnected for short periods of time to allow the patient to enjoy everyday activities, such as showering. For optimal benefit, it is recommended that the C-Pulse device be kept on for at least 80% of the day.

Figure 7. C-Pulse in Patient

Source: Sunshine Heart

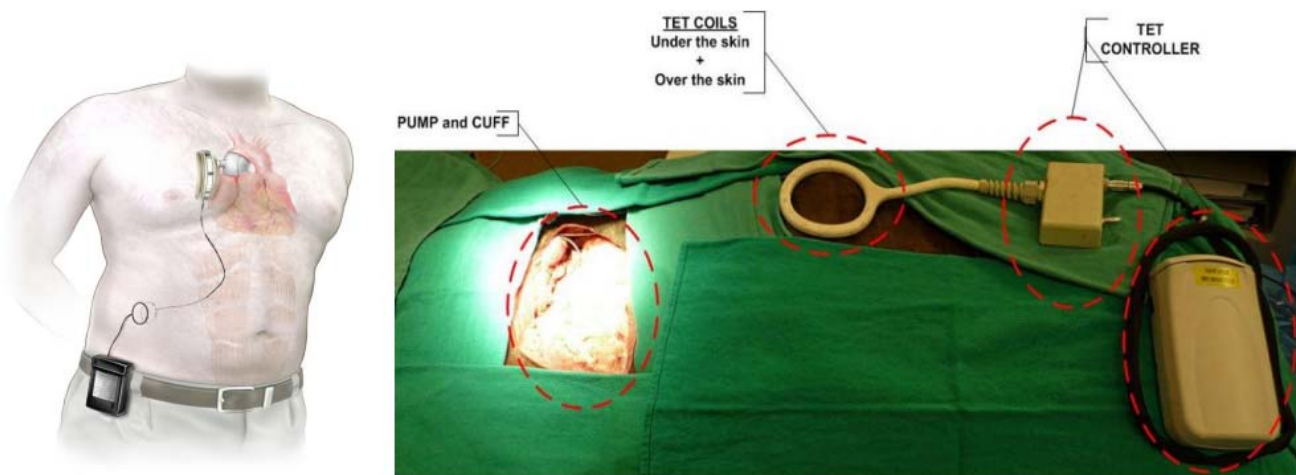
Originally, the C-Pulse system was implanted via a full sternotomy. More recently, SSH developed a toolset to allow the C-Pulse system to be implanted in a minimally invasive fashion via a small incision made between the rib and sternum. The

first implant using the minimally invasive procedure was done in 2010. In the feasibility study, six out of the 20 patients received the C-Pulse device via the new minimally invasive procedure. This minimal approach reduces hospital stay from 14 days to three or four days post surgery. It typically takes an hour for surgeons to implant the C-Pulse.

The cuff portion of the C-Pulse is placed around the ascending aorta and does not come into contact with the blood. This lack of blood contact greatly reduces the risk of stroke and blood clots and eliminates the need for cumbersome blood thinners, such as heparin or warfarin, unless the patient requires them to treat other conditions.

SSH is also developing a fully implantable C-Pulse system. This fully implantable device will eliminate the need for the percutaneous lead to breach the skin to connect to the driver. Instead, a transcutaneous energy transfer (TET) device will connect the external driver lead and the internal cuff lead. TET is an established technology that uses a high frequency electromagnetic field to transfer energy through the skin. Eliminating the internal-external communication port will improve comfort and significantly reduce the risk of infection. SSH completed the initial animal feasibility study in June 2011 at the Texas Heart Institute and will release its development plan for a fully implantable system in the first quarter of 2012.

Figure 8. Fully Implantable C-Pulse Device



Source: Sunshine Heart

COMPLETED CLINICAL TRIALS

First-in-man study

A FIM study was done in Australia and New Zealand starting in 2005. Initially, ten patients were to be implanted, but only five patients were implanted when the trial data was presented in August 2007.

Data on the first two implanted patients was presented on October 26, 2005, at the Australasian Society of Cardiothoracic Surgeons in Queensland, Australia. Final data was presented in April 2008 at the International Society for Heart and Lung Transplantation meeting in Boston. As this was the first experience with C-Pulse in human patients, the patients selected tended to be in critical condition, with four out of the five patients having an INTERMACS profile 4, and the other patient having INTERMACS profile 2. Patients 1 and 5 died on the device on day 81 and 207, respectively. Patient 1 died of multiple organ failure while patient 5 died after 207 days of sepsis and of multiple organ failure. Patient 4 was explanted at day 26, as he received a transplant. Patients 2 and 3 were explanted at day 34 and 58, respectively, due to mediastinitis. Patient 2 died suddenly on day 57 due to an acute myocardial infarction. Patient 3 died on day 80 due to sepsis and multiple organ failure.

Out of these five patients, three had serious infections. In this initial design there were two separate driver malfunctions in patients 4 and 5 that resulted in eight-hour interruptions of therapy. There were no side effects aside from worsening heart failure symptoms during these interruptions. All patients showed improvement at one month, as NYHA class improved from 3.6 ± 0.24 to 2.8 ± 0.2 ($p=0.02$). This data shows the surgery and device are safe, provide effective counterpulsation, and justify further studies.

Figure 9. Clinical Data from First-in-Man Study

Pt	Age/ gender	BSA (m ²)	Etiology	INTERMACS level	Pulmonary hypertension	Arrhythmia	Other	Time on device (days)	Cause of death
1	56/M	2.23	Idiopathic	4	No	No	Smoker, multiple HF readmissions, LVEDD 87 mm, Grade 4 MR, not suitable for transplant, declined VAD	81 (died on device)	Multiple-organ failure Day 81
2	54/M	1.67	Ischemic	4	Yes	No	Fixed high pulmonary gradient and not suitable for transplant or VAD	34 (explanted due to mediastinitis)	Acute myocardial infarction Day 51 (no residual infection at post mortem)
3	58/M	1.99	Idiopathic	2	Yes	AFib	IV inotrope-dependent, IABP in situ, not suitable for VAD	58 (explanted due to mediastinitis)	Died day 80 of sepsis, multiple-organ failure
4	56/F	1.98	Idiopathic	4	No	VT	Syncope, listed for heart transplant	26 (device explanted at transplant)	Transplanted, remains alive
5	73/M	1.75	Ischemic	4	Yes	No	Not suitable for VAD or heart transplant	207 (died on device)	Died on Day 207 of sepsis, multiple-organ failure

AFib, atrial fibrillation; BSA, body surface area; HF, heart failure; IABP, intra-aortic balloon pump; IV, intravenous; LVEDD, left ventricular end-diastolic diameter; MR, myocardial rejection; Pt, patient; VAD, ventricular assist device; VT, ventricular tachycardia.

Source: Hayward et al. *J Heart and Lung Trans.* 2010

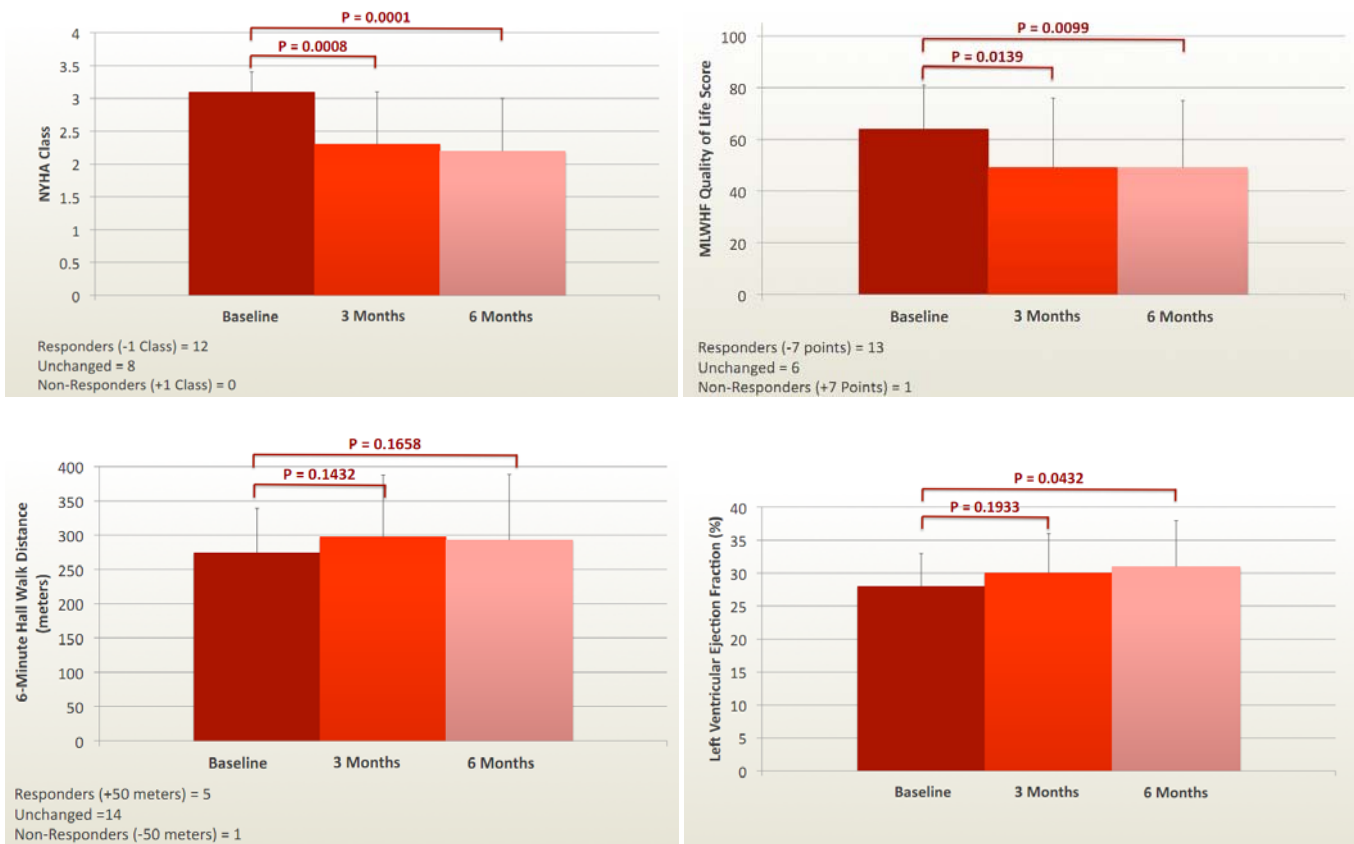
Feasibility trial

This phase I trial began in December 2008, enrolling 20 patients at eight sites. St. Luke's is the leading enroller. Enrollment was slow given the initial requirement for a full sternotomy and too restrictive inclusion/exclusion criteria. The primary endpoint of this trial was safety and efficacy at six months.

Final adjudicated trial results were presented at the Transcatheter Cardiovascular Therapeutics conference on Monday, November 7, 2011 in San Francisco. Of the enrolled patients, 18 had class III heart failure and two had class IV heart failure. The six-month follow up showed a statistically significant improvement in NYHA class from 3.1 ± 0.3 to 2.2 ± 0.8 ($p=0.0001$), quality of life 64 ± 17 to 49 ± 26 ($p=0.001$), and left ventricular ejection fraction from 28 ± 5 to 31 ± 7 ($p=0.04$). All but one patient showed improvement in NYHA class. Four patients improved to NYHA class I, and two patients were weaned from therapy.

There were three deaths in the trial, two drop outs and two super responders who were weaned from therapy. There was one aortic disruption at 137 days post implant, which resulted in death, and two other deaths in the trial due to a drug allergic reaction and a respiratory issue, both two months post surgery. The two drop outs consisted of one patient who elected to receive a heart transplant three months post surgery, and one patient who had to receive an LVAD. Nine of the 20 patients had a major infection, with eight of these related to the exit site.

Figure 10. Feasibility Data



Source: Sunshine Heart

COMPANY DESCRIPTION

Sunshine Heart, Inc. is a development-stage company focused on developing a treatment option for late-stage heart failure patients who do not respond to traditional clinical therapies and are not yet candidates for a heart transplant or ventricular assist device (VAD). SSH is incorporated in Delaware, headquartered in Minnesota, and listed in Australia. The first C-Pulse was implanted in 2005, and commercialization OUS is planned for late 2012. The company has 20 employees and should begin the pivotal US trial for C-Pulse in 4Q12.

Figure I. Valuation Table

Ticker	Rating	Price Target	Share Price	YTD	Market Cap (\$MM)	EPS			Market Cap / Revenue			PE Multiple		
						2011	2012	2013	2011	2012	2013	2011	2012	2013
CNMD	B	\$34	\$26.64	3.78%	\$758.89	\$1.50	\$1.74	\$2.11	1.05	0.98	0.93	17.76	15.31	12.63
ZMH	B	\$77	\$64.67	21.06%	\$11,220.37	\$4.80	\$5.30	\$5.88	2.52	2.46	2.30	13.47	12.20	11.00
WMGI	N		\$19.78	19.87%	\$784.68	\$0.67	\$0.18	\$0.14	1.53	1.63	1.59	29.52	109.88	141.28
SNN	B	\$72	\$51.39	6.73%	\$9,228.27	\$3.71	\$3.63	\$3.82	2.16	2.20	2.14	13.85	14.16	13.45
EXAC	B	\$24	\$15.99	-2.91%	\$212.79	\$0.89	\$0.93	\$1.17	1.04	0.96	0.90	17.97	17.19	13.67
SYK	N		\$52.42	5.45%	\$19,930.14	\$3.72	\$4.10	\$4.45	2.40	2.28	2.18	14.09	12.79	11.78
ATEC	B	\$5	\$1.60	-6.98%	\$145.26	(\$0.08)	\$0.03	\$0.06	0.73	0.71	0.69	-	53.33	26.67
ANIK	B	\$21	\$11.29	15.20%	\$155.86	\$0.62	\$0.79	\$0.84	2.41	2.13	1.87	18.21	14.29	13.44
BMTI	B	\$7	\$3.80	33.33%	\$107.26	(\$1.19)	(\$0.85)	(\$0.85)	62.18	43.37	12.69	-	-	-
MAKO	B	\$25	\$14.50	-42.48%	\$618.86	(\$0.89)	(\$0.60)	(\$0.19)	7.32	5.59	3.96	-	-	-
NUVA	B	\$29	\$13.68	8.66%	\$595.46	\$1.07	\$0.97	\$1.09	1.10	0.96	0.87	12.79	14.10	12.55
TRNX	B	\$27	\$17.21	-4.39%	\$680.12	\$0.00	(\$0.02)	\$0.11	2.60	2.43	2.15	-	-	156.45
TSON	B	\$5	\$2.77	48.92%	\$75.55	(\$0.80)	(\$0.86)	(\$0.51)	3.94	4.88	2.60	-	-	-
CPTS	N		\$19.95	57.83%	\$629.32	(\$0.26)	\$0.03	\$0.13	4.97	4.47	4.08	-	-	153.46
SSH	B	UR*	\$6.26	-	\$57.30	(\$0.01)	(\$2.81)	(\$2.42)	-	55.63	9.33	-	-	-
AVG					3224.49				6.85	8.71	3.22	17.21	29.25	51.49
High					19930.14				62.18	55.63	12.69	29.52	109.88	156.45
Low					75.55				0.73	0.71	0.69	12.79	12.20	11.00
SPX			\$1,377.52	10.89%					-	-	-	14.27	13.42	12.44

* UR - Under Review

Source: Company Reports, FactSet Estimates, SSRP Estimates

Figure 2. SSH Quarterly Income Statement

SSH Income Statement	2011					2012E					2013E				
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4E		Q1E	Q2E	Q3E	Q4E	
Total revenues	-	-	-	-	-	-	-	-	570	570	1,086	1,448	1,590	2,020	6,144
Clinical Trial Revenue	-	-	-	-	-	-	-	-	240	240	756	1,008	1,260	1,470	4,494
Commercial Revenue	-	-	-	-	-	-	-	-	330	330	330	440	330	550	1,650
COGS	-	-	-	-	-	-	-	-	156	156	264	352	396	495	1,507
Gross profit	-	-	-	-	-	-	-	-	414	414	822	1,096	1,194	1,525	4,637
SG&A	642	1,178	1,430	2,113	5,363	1,940	1,569	1,495	1,250	6,254	1,400	1,500	1,550	1,600	6,050
R&D	2,292	2,374	3,273	3,260	11,199	2,166	1,787	1,802	4,250	10,005	4,500	4,750	5,000	5,250	19,500
Medical Device Excise Tax	-	-	-	-	-	-	-	-	-	-	17	23	29	34	103
Other operating costs, net	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total operating expenses	2,934	3,552	4,703	5,373	16,562	4,106	3,356	3,297	5,500	16,259	5,917	6,273	6,579	6,884	25,653
Operating income	(2,934)	(3,552)	(4,703)	(5,373)	(16,562)	(4,106)	(3,356)	(3,297)	(5,086)	(15,845)	(5,095)	(5,177)	(5,385)	(5,359)	(21,016)
Interest expense, net	(117)	(80)	(31)	(23)	(251)	(25)	(4)	(1)	(125)	(155)	(100)	(100)	(75)	(75)	(350)
Other non-operating Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Income before taxes	(2,817)	(3,472)	(4,672)	(5,350)	(16,311)	(4,081)	(3,352)	(3,296)	(4,961)	(15,690)	(4,995)	(5,077)	(5,310)	(5,284)	(20,666)
Provision for income taxes	-	-	-	(115)	(115)	-	(730)	-	-	(730)	(1,460)	(2,190)	(4,380)	(8,760)	-
Reported net income, net	(2,817)	(3,472)	(4,672)	(5,235)	(16,196)	(4,081)	(2,622)	(3,296)	(4,961)	(14,960)	(3,535)	(2,887)	(930)	3,476	(20,666)
Special charges	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GAAP net income	(2,817)	(3,472)	(4,672)	(5,235)	(16,196)	(4,081)	(2,622)	(3,296)	(4,961)	(14,960)	(3,535)	(2,887)	(930)	3,476	(20,666)
Shares Outstanding ('000)	5,078	5,094	6,019	6,019	5,442	6,169	6,277	7,789	7,839	7,019	7,889	7,939	7,989	8,039	7,964
EPS Reported	(\$0.55)	(\$0.68)	(\$0.78)	(\$0.87)	(\$2.98)	(\$0.66)	(\$0.42)	(\$0.42)	(\$0.63)	(\$2.13)	(\$0.45)	(\$0.36)	(\$0.12)	\$0.43	(\$2.59)
EPS GAAP	(\$0.55)	(\$0.68)	(\$0.78)	(\$0.87)	(\$2.98)	(\$0.66)	(\$0.42)	(\$0.42)	(\$0.63)	(\$2.13)	(\$0.45)	(\$0.36)	(\$0.12)	\$0.43	(\$2.59)
Margin Analysis															
COGS	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	27.4%	27.4%	24.3%	24.3%	24.9%	24.5%
Gross profit	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	72.6%	72.6%	75.7%	75.7%	75.1%	75.5%
SG&A	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	219.3%	1097.2%	128.9%	103.6%	97.5%	98.5%
R&D	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	745.6%	1755.3%	414.4%	328.0%	314.5%	317.4%
Amortization of definite life	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total operating costs and exp	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	964.9%	2852.5%	544.9%	433.2%	413.8%	417.5%
Operating income	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-892.3%	-2779.8%	-469.2%	-357.5%	-338.7%	-342.1%
Income before taxes	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-870.4%	-2752.6%	-460.0%	-350.6%	-334.0%	-261.6%
Tax rate	0.0%	0.0%	0.0%	2.1%	0.7%	0.0%	21.8%	0.0%	0.0%	4.7%	29.2%	43.1%	82.5%	165.8%	0.0%
EPS Reported	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-870.4%	-2624.6%	-325.5%	-199.4%	-58.5%	-336.4%
EPS GAAP	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	-870.4%	-2624.6%	-325.5%	-199.4%	-58.5%	-336.4%
Growth Analysis															
Total revenues	-100%	-100%	-100%	-100%	-100%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	978%
COGS	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	866%
SG&A	61%	70%	221%	99%	106%	202%	33%	5%	-41%	17%					-3%
R&D	83%	63%	186%	37%	80%	-5%	-25%	-45%	30%	-11%					95%
Total operating costs and exp	78%	65%	196%	56%	88%	40%	-6%	-30%	2%	-2%					58%
Operating income	82%	75%	239%	59%	97%	40%	-6%	-30%	-5%	-4%					33%
Income before taxes	79%	75%	243%	60%	97%	45%	-3%	-29%	-7%	-4%					32%
Reported net income	79%	164%	243%	56%	113%	45%	-24%	-29%	-5%	-8%					38%
GAAP net income	79%	164%	243%	56%	113%	45%	-24%	-29%	-5%	-8%					38%
EPS Reported	#DIV/0!	#DIV/0!	#DIV/0!	26204%	13%	19%	-39%	-45%	-27%	-28%					22%
EPS GAAP	#DIV/0!	#DIV/0!	#DIV/0!	26204%	13%	19%	-39%	-45%	-27%	-28%					22%

Disclosures and Disclaimers — Fourth Quarter 2012

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Investment Rating Distribution for the Period 7/1/12 through 9/30/12:

Rating	Count	Percentage
BUY	35	80%
NEUTRAL	8	18%
SELL	1	2%
Companies under coverage at 9/30/12	44	100%

We have assigned an investment rating for at least one year for the following subject companies mentioned in this report:

SSH**Ratings History**

Date	Rating	Share Price	Price Target
1/17/12	BUY	AU\$0.04	AU\$0.15
2/15/12	BUY	\$0.04	US\$30.00
7/18/12	BUY	US\$9.40	Under Review
8/13/12	BUY	\$6.93	\$26.00

SSH Investment Risks

- **C-Pulse clinical risk/limited data.** There is little human data to analyze; early results sometimes do not transfer to a larger setting.
- **Unexpected events could slow clinical trial program and EU adoption.** Any form of device failure or increase in adverse events from current baseline could damage physician confidence, slow down trial enrollment, and hinder market adoption.
- **Limited financial resources.** SSH will need to raise \$50-60MM to get to FDA approval.

Valuation Method for Price Target: Valuation of comparative companies



Source: StockCharts.com