UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No.)*

Elan Corporation, plc (Name of Issuer)

American Depositary Shares (ADSs), representing Ordinary Shares, Par value €0.05 each (Ordinary Shares)

(Title of Class of Securities)

284131208 (CUSIP Number)

September 17, 2009 (Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- " Rule 13d-1(b)
- x Rule 13d-1(c)
- " Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 284131208

13G

NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) Johnson & Johnson I.R.S. I.D. # 22-1024240 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) "

(b) x

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

New Jersey

SEC USE ONLY

·		SOLE VOTING POWER
	5	
NUMBER OF		107,396,285 (based on 107,396,285 ADSs)
SHARES		SHARED VOTING POWER
BENEFICIALLY	6	
OWNED BY		-0-
EACH		SOLE DISPOSITIVE POWER
REPORTING	7	
PERSON		107,396,285 (based on 107,396,285 ADSs)
WITH		SHARED DISPOSITIVE POWER
	8	

-0-

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

9

107,396,285 (based on 107,396,285 ADSs)

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) 10

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

18.4%*

TYPE OF REPORTING PERSON (See Instructions)

12

CO

* Based on 583,675,463 outstanding Ordinary Shares, which is the total number of Ordinary Shares issued and outstanding as of September 17, 2009.

Item

1.

(a) Name of Issuer: Elan Corporation, plc

(b) Address of Issuer's Principal Executive Offices:

Treasury Building, Lower Grand Canal Street Dublin 2, Ireland

Item 2.

(a) Name of Person Filing:

Johnson & Johnson, a New Jersey corporation

(b) Address of Principal Business Office or, if none, Residence:

One Johnson & Johnson Plaza, New Brunswick, NJ 08933

(c) Citizenship: New Jersey

(d) Title of Class of Securities: American Depositary Shares (ADSs), representing Ordinary Shares, Par value €0.05 each (Ordinary Shares)

(e) CUSIP Number: 284131208

ItemIf this statement is filed pursuant to Rules 13d-1(b), or 13d-2(b) or (c), check whether the person filing is a: 3.

(a)	 Broker or dealer registered under section 15 of the Act;
(b)	 Bank as defined in section 3(a)(6) of the Act;
(c)	 Insurance company as defined in section $3(a)(19)$ of the Act;
(d)	 Investment company registered under section 8 of the Investment Company Act of 1940;
(e)	 An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);
(f)	 An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);
(g)	 A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G) (Note: See Item 7);
(h)	

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(i)...A savings association as defined in section 3(b) of the Federal Deposit Insurance Act;(i)...A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940;(j)...Group, in accordance with Rule 13d-1(b)(1)(ii)(H).

If this statement is filed pursuant to Rule 13d-1(c), check this box. x

ItemOwnership.

4.

(a) Amount beneficially owned: 107,396,285 (based on 107,396,285 ADSs)

(b) Percent of class*: 18.4%

* Based on 583,675,463 outstanding Ordinary Shares, which is the total number of Ordinary Shares issued and outstanding as of September 17, 2009.

(c) Number of shares to which the person has:

(i)	Sole Voting Power: 1	07,396,285 (based on 107,396,285 ADSs)
	(ii)	Shared Voting Power: 0
(iii)	Sole Dispositive Power:	107,396,285 (based on 107,396,285 ASRs)
	(iv)	Shared Dispositive Power: 0

ItemOwnership of Five Percent or Less of a Class. 5.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

Not applicable.

ItemOwnership of More than Five Percent on Behalf of Another Person. 6.

If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to that effect should be included in response to this item and, if such interest relates to more than five percent of the class, such person should be identified. A listing of the shareholders of an investment company registered under the Investment Company Act of 1940 or the beneficiaries of employee benefit plan, pension fund or endowment fund is not required.

The 107,396,285 ADSs identified in Item 4 above are directly owned by Janssen Pharmaceutical, an Irish unlimited company (Reg. No. 79963), with its registered office at Little Island Industrial Estate, Little Island, Co. Cork, Ireland, a wholly owned subsidiary of Johnson & Johnson.

ItemIdentification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent 7. Holding Company.

If a parent holding company has filed this schedule, pursuant to Rule 13d-1(b)(ii)(G), so indicate under Item 3(g) and attach an exhibit stating the identity and the Item 3 classification of the relevant subsidiary. If a parent holding company has filed this schedule pursuant to Rule 13d-1(c) or Rule 13d-1(d), attach an exhibit stating the identification of the relevant subsidiary.

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The 107,396,285 ADSs identified in Item 4 above are directly owned by Janssen Pharmaceutical, an Irish unlimited company (Reg. No. 79963), with its registered office at Little Island Industrial Estate, Little Island, Co. Cork, Ireland, a wholly owned subsidiary of Johnson & Johnson.

ItemIdentification and Classification of Members of the Group. 8.

If a group has filed this schedule pursuant to 240.13d-1(b)(1)(ii)(J), so indicate under Item 3(j) and attach an exhibit stating the identity and Item 3 classification of each member of the group. If a group has filed this schedule pursuant to 240.13d-1(c) or 240.13d-1(d), attach an exhibit stating the identity of each member of the group.

Not applicable.

ItemNotice of Dissolution of Group. 9.

Notice of dissolution of a group may be furnished as an exhibit stating the date of the dissolution and that all further filings with respect to transactions in the security reported on will be filed, if required, by members of the group, in their individual capacity. See Item 5.

Not applicable.

ItemCertification. 10.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: September 17, 2009

JOHNSON & JOHNSON,

By:

/s/ Steven M. Rosenberg Name: Steven M. Rosenberg Title: Secretary

lan for the six months ended June 30, 2009. As described above, our prior cash incentive plans established calendar year incentive periods, and the purpose of the new cash incentive plan was to align the period for our compensation program with our June 30th fiscal year end.

The plan conditioned the payment of incentive compensation to all participants upon our achievement of revenue and adjusted EBITDA financial goals. Target bonus amounts were split evenly between these two goals. None of the executive officers were subject to individual goals under this plan. No plan participant received a bonus unless we achieved certain minimum adjusted EBITDA goals. Target bonus levels as a percentage of base salary for the six-month period were 75% for the President and Chief Executive Officer and 50% for the other named executive officers. Depending upon our performance against the goals, participants were eligible to earn 50% to 200% of their target bonus amount for adjusted EBITDA and 50% to 150% of their target bonus amount for revenue; however, in the event of extraordinary revenue performance above the goals set by the Board, the participants could receive incentive payments greater than 150% of their targets for the revenue goal based upon a formula established by the Board, with no maximum payout set under the plan. The plan criteria were the same for all of the executive officers. The plan was designed to reward the executive officers for achieving and surpassing the financial goals set by the Compensation Committee and Board. In addition to incentives under this plan, Scott Kraus, Vice President of Sales, received monthly sales commissions based on our monthly revenue. *Stock Option and Other Equity Awards*

Consistent with our compensation philosophies related to performance-based compensation, long-term stockholder value creation and alignment of executive interests with those of stockholders, we make periodic grants of long-term compensation in the form of stock options or restricted stock to our executive officers and across our organization generally.

Stock options provide executive officers with the opportunity to purchase common stock at a price fixed on the grant date regardless of future market price. A stock option becomes valuable only if the common stock price increases above the option exercise price and the holder of the option remains employed during the period required for the option shares to vest. This provides an incentive for an option holder to remain employed by us. In addition, stock options link a significant portion of an employee s compensation to stockholders interests by providing an incentive to achieve corporate goals and increase stockholder value. Under our 2007 Equity Incentive Plan, we may also make grants of restricted stock awards, restricted stock units, performance share awards, performance unit awards and stock appreciation rights to officers and other employees. We adopted this plan to give us flexibility in the types of awards that we could grant to our executive officers and other employees.

The Compensation Committee consulted Lyons, Benenson & Company, a third-party compensation consulting firm, to determine competitive levels of stock option grants for officers in comparable positions with companies of comparable size and stage of development. Based on the guidance from Lyons and the experience of the members of the Compensation Committee, the Compensation Committee considered the relative ownership levels of each officer based upon levels before and after becoming a public company and has identified target levels of option grants for

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each of our officers. Furthermore, the Compensation Committee considered each named executive officer s role and responsibilities, ability to influence long term value creation, retention and incentive factors and current stock and option holdings at the time of grant, as well as individual performance, which is a significant factor in the Compensation Committee s decisions. We granted options in fiscal 2008 to each of our officers to bring the total number of shares subject to options held by each such officer, including shares subject to any previously granted options, closer to the levels identified by the Compensation Committee as appropriate for that position, while also taking into consideration performance of the officer and the limitations imposed by the number of shares authorized for issuance under our stock option plans. The Compensation Committee did not consider specific performance objectives but generally concluded that each of our executive officers had performed well and deserved option grants intended to move their equity ownership closer to the Compensation Committee s targeted levels.

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In December 2007, we granted stock options to our executive officers at the time, including to Mr. Martin to purchase 242,625 shares of common stock, which were to vest in full on the third anniversary of the grant date, provided that we had completed an initial public offering or a change of control transaction before December 31, 2008. We included this vesting restriction on the grants of stock options in order to provide additional incentives to our executive officers to complete an initial public offering or complete an alternate transaction that would provide stockholder liquidity. In fiscal 2009, these options were amended by the Board of Directors to provide for vesting of 50% of the options on the first anniversary, and 50% of the options on the second anniversary, of the closing of the merger, which occurred on February 25, 2009.

From time to time we may make one-time grants of stock options or restricted stock to recognize promotion or consistent long-term contribution, or for specific incentive purposes. On March 2, 2009, following the closing of the merger, the Board granted 32,350 stock options to Mr. Martin and 14,234 to Mr. Betterley, which provide for vesting of 50% of the options on the first anniversary, and 50% of the options on the second anniversary of the grant date, and on April 29, 2009, following his promotion to Vice President of Sales, the Board granted Mr. Kraus 20,000 shares of restricted stock, which shares vest ratably in three annual installments, beginning on April 29, 2010.

We also grant stock options or other equity awards to executive officers in connection with their initial employment. In connection with our negotiations with Mr. Betterley to join us as Chief Financial Officer, we provided Mr. Betterley with a grant of 48,525 shares of restricted stock under the 2007 Equity Incentive Plan, which shares vest ratably in three annual installments, beginning on April 14, 2009. We have made grants of restricted stock to various employees under the 2007 Equity Incentive Plan. In the future, we intend to grant restricted stock instead of, or in addition to, stock options to our executive officers, because we can typically use fewer shares from our available pool in making restricted stock grants. We believe that restricted stock is as effective as stock options in motivating performance of employees.

Although we do not have any detailed stock retention or ownership guidelines, the Board and Compensation Committee generally encourage our executives to have a financial stake in our company in order to align the interests of our stockholders and management, and view stock options as a means of furthering this goal. We will continue to evaluate whether to implement a stock ownership policy for our officers and directors.

Limited Perquisites; Other Benefits

It is generally our policy not to extend significant perquisites to our executives beyond those that are available to our employees generally, such as 401(k) plan, health, dental and life insurance benefits. We have given car allowances to certain named executives and moving allowances for executives who have relocated. We also pay for housing, commuting and related costs for our Chief Executive Officer.

Potential Payments Upon Termination or Change of Control

The majority of our stock option agreements provide that in the event of a change of control (the sale by us of substantially all of our assets and the consequent discontinuance of our business, or in the event of a merger, exchange or liquidation), the vesting of all options will accelerate and the options will be immediately exercisable as of the effective date of the change of control. Our restricted stock agreements also provide for the acceleration of vesting as of the effective date of a change of control.

Under the terms of the employment agreement with Mr. Martin, we will pay Mr. Martin an amount equal to 12 months of his then current base salary and 12 months of our share of health insurance costs if Mr. Martin is terminated by us without cause, or if Mr. Martin terminates his employment for good reason, as defined in the agreement. Good reason is generally defined as the assignment of job responsibilities to Mr. Martin that are not comparable in status or responsibility to those job responsibilities set forth in the agreement, a reduction in Mr. Martin s base salary without his consent, or our failure to provide Mr. Martin the benefits promised under his employment agreement. As a condition to receiving his severance benefits, Mr. Martin is required to execute a release of claims agreement in favor of us.

Under the terms of the employment agreement with Mr. Betterley, we will pay Mr. Betterley an amount equal to 12 months of his then current base salary and 12 months of our share of health insurance costs if Mr. Betterley is terminated by us without cause, or if Mr. Betterley terminates his employment for good reason, as defined in the agreement. Good reason is generally defined as the assignment of job responsibilities to Mr. Betterley that are not

comparable in status or responsibility to those job responsibilities set forth in the

agreement, a reduction in Mr. Betterley s base salary without his consent, or our failure to provide Mr. Betterley the benefits promised under his employment agreement. As a condition to receiving his severance benefits, Mr. Betterley is required to execute a release of claims agreement in favor of us.

We agreed to the payment of severance benefits in the employment agreements with Mr. Martin and Mr. Betterley because they each requested these severance benefits and we believed it was necessary to provide such benefits in order to obtain the agreements with them. We believe that other medical device manufacturers provide substantially similar severance benefits to their senior officers and that providing severance benefits to our Chief Executive Officer and Chief Financial Officer is therefore consistent with market practices. We believe that such benefits are reasonable to protect the Chief Executive Officer and Chief Financial Officer against the risk of having no compensation while they seek alternative employment following a termination of their employment with us.

Summary Compensation Table for Fiscal 2008 and 2009

The following table provides information regarding the compensation earned during the fiscal years ended June 30, 2009 and June 30, 2008 by each of the named executive officers.

					Nonequity		
			Stock	Option	incentive	All other	
			awards	awards	plan		
	Fiscal	Salary	(1)	(1)	compensation	-	Total
Name and Principal Position	Year	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
David L. Martin	2009	395,000		713,376	308,108	97,849	1,514,333
President and Chief Executive Officer ⁽²⁾	2008	377,629		314,552	215,928	94,427	1,002,536
Laurence L. Betterley	2009	236,731	278,462	16,108	127,473		658,774
Chief Financial Officer ⁽³⁾	2008	43,269	64,011		23,438		130,718
Scott Kraus	2009	158,923	165,417	22,640	242,723	7,800	589,703
<i>Vice President of Sales</i> ⁽⁴⁾							
 (1) The value of stock awards and options in this table represent the amounts recognized for financial statement reporting purposes for 							

fiscal 2009 in accordance with FAS 123(R), and thus may include amounts from awards granted in and prior to fiscal 2009. The assumptions used to determine the valuation of the awards are discussed in Management s Discussion and Analysis of Financial Condition and Results of Operations and in Note 6 to our consolidated financial statements, each included in the Company s Annual Report on Form 10-K for the 2009 fiscal year, filed with the Securities and Exchange Commission on September 29, 2009.

(2) The amount under Non-Equity Incentive Plan Compensation for Mr. Martin for 2009 consists of (i) incentive compensation of \$184,663 paid to Mr. Martin at the end of calendar 2008 under our calendar 2008 incentive plan, and (ii) incentive compensation of \$123,445 paid for company performance

through June 30, 2009 under our incentive plan for the six months ended June 30, 2009. The amount under Non-Equity Incentive Plan Compensation for Mr. Martin for 2008 consists of (i) incentive compensation of \$92,500 paid to Mr. Martin at the end of calendar 2007 to satisfy our commitment to pay Mr. Martin 25% of his initial base salary of \$370,000 under his employment agreement dated December 19, 2006, which award was based upon his performance in calendar 2008, and (ii) incentive compensation of \$123,428 paid for company performance through June 30, 2008, under our incentive plan for calendar 2008. The amounts under All Other Compensation for Mr. Martin (i) for 2009

consist of payments for housing, furniture rental, cleaning and related expenses of \$54,635 and car and transportation expenses of \$43,214, and (ii) for 2008 consist of payments for housing, furniture rental, cleaning and related expenses of \$68,499, car and transportation expenses of \$17,471, and reimbursement of \$8,457 for transportation costs of visits to Minnesota by his family.

- (3) Mr. Betterley commenced employment on April 14, 2008.
 - The amount under Non-Equity Incentive Plan Compensation for Mr. Betterley for 2009 consists of

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(i) incentive compensation of \$75,387 paid to Mr. Betterley at the end of calendar 2008 under our calendar 2008 incentive plan, and (ii) incentive compensation of \$52,086 paid for company performance through June 30, 2009, under our incentive plan for the six months ended June 30, 2009. The amount under Non-Equity Incentive Plan Compensation for Mr. Betterley for 2008 consists of incentive compensation paid for company performance through June 30, 2008, under our incentive plan for calendar 2008. (4) Mr. Kraus was

 (4) Mil. Klaus was promoted to Vice President of Sales in April 2009, prior to which he was a senior sales director for the Company. This table only information regarding compensation paid to or earned by Mr. Kraus in fiscal 2009, the year in which he became an executive officer. The amount under Non-Equity Incentive Plan Compensation for Mr. Kraus consists of (i) incentive compensation of \$30,210 paid to Mr. Kraus for company performance through June 30, 2009, under our incentive plan for the six months ended June 30, 2009, and (ii) commissions of \$212,513 paid to Mr. Kraus in fiscal 2009.

includes

Outstanding Equity Awards at Fiscal Year-end for Fiscal 2009

The following table sets forth certain information regarding outstanding equity awards held by the named executive officers as of June 30, 2009.

Option A	wards	Stock Awards	5
			Equity Incentive Plan
		Equity	Awards:
		Incentive	Market or
		Plan	
		Awards:	Payout
		Number	
		of	Value of
Number	Number		
of	of	Unearned	Unearned

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		Securities	Securities				Shares, Units or	Shares,
		Underlying	Underlying				Other Rights	Units or Other
	~		Unexercised		ption	Option	that	Rights
	Grant	Options	Options		ercise	Expiration	Have Not	that Have
	Date	Exercisable	Unexercisable	Pr	rice(1)	Date	Vested	Not Vested
David L.								
Martin ⁽²⁾⁽³⁾⁽⁵⁾	7/17/06	71,170	0	\$	8.83	7/16/11		
	8/15/06	25,880	12,940		8.83	8/14/11		
	2/15/07	271,740	77,640		8.83	2/14/12		
	6/12/07	60,387	30,193		7.90	6/11/17		
	12/12/07	0	242,625		12.15	12/11/17		
	3/2/09	0	32,350		8.75	3/2/19		
Laurence L.								
Betterley ⁽⁴⁾	4/14/08						32,350	\$ 249,419
-	3/2/09	0	14,234		8.75	3/2/19		
Scott W. Kraus ⁽⁵⁾	10/3/06	17,254	8,626	\$	8.83	10/2/11		
	4/18/07	2,157	1,078		8.83	4/17/17		
	8/7/07	6,470	3,235		8.83	8/6/17		

(1) See Note 6 to the consolidated financial statements included in the Company s Annual Report on Form 10-K for the year ended June 30

ended June 30, 2009, filed with the SEC on September 29, 2009 for a discussion of the methodology for determining the exercise price.

(2) The

August 2006 and June 2007 options vest at the rate of one-third per year starting on the first anniversary of the grant date. The February 2007 options vest at the rate of 9,705 shares per month starting March 15, 2007. The December 2007 grant was to vest in full on the third anniversary of the grant date provided that we had completed an initial public offering or a change of control transaction before December 31, 2008. The December 2007 options were amended by the Board of Directors to provide for vesting of 50% of the options on the first anniversary, and 50% of the options on the second anniversary, of the closing of the merger. The March 2009 options vest at the rate of one-half per year starting on the first anniversary of the grant date.

 (3) Certain of our stock option agreements provide that in the event of a change of control (the sale by the

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company of substantially all of its assets and the consequent discontinuance of its business. or in the event of a merger, exchange or liquidation), the vesting of all options will accelerate and the options will be immediately exercisable as of the effective date of the change of control.

(4) Restricted stock awards vest at the rate of one-third per year starting on the first anniversary of the grant date. As of June 30, 2009, 16,175 shares of Mr. Betterley s restricted stock had vested.

(5) All option

awards vest at the rate of one-third per year starting on the first anniversary of the grant date, except for the grants made (a) on March 2, 2009, which yest at the rate

of one-half per year starting on the first anniversary of the grant date, and (b) on December 12, 2007, which were to vest in full on the third anniversary of the grant date provided that CSI had completed an initial public offering or a change of control transaction before December 31, 2008. The December 2007 options were amended by the Board of Directors to provide for vesting of 50% of the options on the first anniversary, and 50% of the options on the second anniversary, of the closing of the merger.

DIRECTOR COMPENSATION

The non-employee members of the Board are reimbursed for travel, lodging and other reasonable expenses incurred in attending board or committee meetings. Prior to the merger, upon initial election to the Board, the non-employee directors of CSI-MN were granted an option to purchase 60,000 shares of common stock, and in subsequent years, each non-employee director received an annual stock option grant to purchase a quantity of common stock that is determined by the Board on an annual basis. Prior to January 1, 2009, the directors of CSI-MN were not compensated for service as board and committee members or for attending meetings.

The Board adopted a director compensation plan that became effective upon the completion of the merger. For the six month period ended June 30, 2009, each director received the following compensation:

\$20,000 for service as a board member;

\$10,000 for service as a chairman of a board committee;

\$5,000 for service as a member of a board committee;

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\$1,200 per board or committee meeting attended in the event more than six of each such meetings are held during the period; and

a restricted stock unit award with a value of \$50,000, granted following the completion of the merger, and payable in cash beginning six months after the termination of the director s board membership.

The former directors of Replidyne who continued as directors of the combined company, Edward Brown and Augustine Lawlor, received the amounts stated above on a prorated basis for the period from February 25, 2009 through June 30, 2009.

For the twelve month period ending June 30, 2010, each non-employee director will receive the following compensation:

\$40,000 for service as a board member;

\$20,000 for service as a chairman of a board committee;

\$10,000 for service as a member of a board committee;

\$1,200 per board or committee meeting attended in the event more than 12 of each such meeting are held during the period; and

a restricted stock unit award with a value of \$100,000, to be granted following completion of the audit of the Company s financial statements for the fiscal year ending June 30, 2010, and payable in cash beginning six months after the termination of the director s board membership.

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In addition, the Chairman of the Board receives an annual retainer of \$40,000, which may, at the election of the Chairman, be paid in shares of common stock based on the fair market value of the Company s common stock on the date of payment.

Director Compensation Table for Fiscal 2009

The following table summarizes the compensation paid to each non-employee director in the fiscal year ended June 30, 2009. Information for compensation of directors of Replidyne, including Messrs. Brown and Lawlor, for Replidyne s fiscal year ended December 31, 2009 (which includes the first two quarters of our fiscal 2009) can be found in Replidyne s Form 10-K filed with the SEC on February 24, 2009. The information is the following table set forth compensation for the directors of CSI-MN who continued as directors of the combined company following the merger, and the former Replidyne directors who continued as directors of the combined company following the merger.

Ontion

			Option	
	Fees Earned	Stock		
	or	Awards	Awards	
	Paid in Cash	(1)(2)	(1)(2)(3)	Total
Name	(\$)	(\$)	(\$)	(\$)
Brent G. Blackey	30,000	44,057	83,191	157,248
Edward Brown	20,750	29,371	0	50,121
John H. Friedman	30,000	44,057	5,905	79,962
Geoffrey O. Hartzler, M.D.	35,000	44,057	0	79,057
Roger J. Howe, Ph.D.	20,000	44,057	0	64,057
Augustine Lawlor	20,750	29,371	0	50,121
Glen D. Nelson, M.D.	20,000	44,057	0	64,057
Gary M. Petrucci	25,000	44,057	0	69,057
(1) The value of				
stock awards				
and options in				
this table				
represent the				
amounts				
recognized for				
financial				
statement				
reporting				
purposes for				
fiscal 2009 in				
accordance with				
FAS 123(R),				
and thus may				
include amounts				
from awards				
granted in and				
prior to fiscal				
2009. The				
assumptions				
used to				
determine the				

valuation of the awards are discussed in Management s Discussion and Analysis of Financial Condition and Results of Operations and in Note 6 to our consolidated financial statements, each included in the Company s Annual Report on Form 10-K for the 2009 fiscal year, filed with the Securities and Exchange Commission on September 29, 2009. (2) The aggregate number of stock awards held by each of the directors listed in the table above as of June 30, 2009, was as follows:

June 30, 2009, was as follows: Mr. Blackey 5,714 shares; Mr. Brown 3,977 shares; Mr. Friedman 5,714 shares; Dr. Hartzler 5,714 shares; Dr. Howe 5,714 shares; Mr. Lawlor 3,977 shares; Dr. Nelson 5,714 shares; and Mr. Petrucci

5,714 shares. All of these awards represent restricted stock units granted to the directors on March 2, 2009. (3) The aggregate number of shares subject to outstanding option awards held by each of the directors listed in the table above as of June 30, 2009, was as follows: Mr. Blackey 45,290 shares; Mr. Friedman 58,229 shares: Dr. Hartzler 129,275 shares; Dr. Howe 176,484 shares; Dr. Nelson 48,524 shares; and Mr. Petrucci 308.075 shares. Messrs. Brown and Lawlor did not hold any shares subject to outstanding option awards on June 30, 2009.

Item 12. Securities Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth as of October 16, 2009 certain information regarding beneficial ownership of our common stock by:

Each person known to us to beneficially own 5% or more of our common stock;

Each executive officer named in the Summary Compensation Table on page 9, who in this Report are collectively referred to as the named executive officers;

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Each of our directors; and

All of our executive officers (as that term is defined under the rules and regulations of the SEC) and directors as a group.

We have determined beneficial ownership in accordance with Rule 13d-3 under the Exchange Act. Beneficial ownership generally means having sole or shared voting or investment power with respect to securities. Unless otherwise indicated in the footnotes to the table, each stockholder named in the table has sole voting and investment power with respect to the shares of common stock set forth opposite the stockholder s name. We have based our calculation of the percentage of beneficial ownership on 14,598,225 shares of CSI common stock outstanding on October 16, 2009. Unless otherwise noted below, the address for each person or entity listed in the table is c/o Cardiovascular Systems, Inc., 651 Campus Drive, St. Paul, Minnesota 55112.

Beneficial Owner	Amount and Nature of Beneficial Ownership	Percentage of Shares Beneficially Owned
Named Executive Officers and Directors		
David L. Martin ⁽¹⁾	662,651	4.4%
Laurence L. Betterley ⁽²⁾	71,781	*
Scott W. Kraus ⁽³⁾	106,038	*
Brent G. Blackey ⁽⁴⁾	42,292	*
Edward Brown ⁽⁵⁾	18,051	*
John H. Friedman ⁽⁶⁾	58,229	*
Geoffrey O. Hartzler, M.D. ⁽⁷⁾	246,163	1.7%
Roger J. Howe, Ph.D. ⁽⁸⁾	199,245	1.3%
Augustine Lawlor ⁽⁹⁾	435,905	3.0%
Glen D. Nelson, M.D. ⁽¹⁰⁾	456,473	4.0%
Gary M. Petrucci ⁽¹¹⁾	598,322	*%
All Directors and Executive Officers as a Group (16 individuals) ⁽¹²⁾	3,477,314	*%
5% Stockholders		23.5
Easton Capital Investment Group ⁽¹³⁾	1,379,876	9.1%
Maverick Capital, Ltd. ⁽¹⁴⁾	2,183,151	14.2%
Mitsui & Co., Ltd. ⁽¹⁵⁾	776,861	5.2

* Less than 1% of the outstanding shares.

(1) Includes

500,347 shares issuable upon the exercise of options exercisable within 60 days of October 16, 2009, and 113,132 shares of restricted stock that are subject to a risk of forfeiture.

 Includes 55,606 shares of restricted stock that are subject to a risk of forfeiture.

(3) Includes 40,241 shares issuable upon the exercise of options and warrants exercisable within 60 days of October 16, 2009, and 36,654 shares of restricted stock that are subject to a risk of forfeiture.

(4) Includes 35,089 shares issuable upon the exercise of options and warrants exercisable within 60 days of October 16, 2009. Does not include 8,621 vested restricted stock units that represent the right to receive a cash payment from the Company equal in value to the market price of one share per unit of the Company s

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common stock as of the date that is six months following the date of the termination of Mr. Blackey s board membership.

(5) Does not include 6,884 vested restricted stock units that represent the right to receive a cash payment from the Company equal in value to the market price of one share per unit of the Company s common stock as of the date that is six months following the date of the termination of Mr. Brown s board membership.

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(6) Includes 58.229 shares issuable upon the exercise of options exercisable within 60 days of October 16, 2009 issued to Mr. Friedman that are held for the benefit of entities affiliated with Easton Capital Investment Group. Does not include 8,621 vested restricted stock units that represent the right to receive a cash payment from the Company equal in value to the market price of one share per unit of the Company s common stock as of the date that is six months following the date of the termination of Mr. Friedman s board membership, issued to Mr. Friedman that are held for the benefit of entities affiliated with Easton Capital Investment Group.

Includes (7)129,275 shares issuable upon the exercise of options exercisable within 60 days of October 16, 2009. Does not include 8,621 vested restricted stock units that represent the right to receive a cash payment from the Company equal in value to the market price of one share per unit of the Company s common stock as of the date that is six months following the date of the termination of Dr. Hartzler s board membership. (8) Includes

176,484 options issuable upon the exercise of options exercisable within 60 days of October 16, 2009. Also includes 14,350 shares and 8,411 shares issuable upon the exercise of warrants exercisable within 60 days

of October 16, 2009, held by Sonora Web Limited Liability Limited Partnership, of which Dr. Howe is the General Partner. Does not include 8,621 vested restricted stock units that represent the right to receive a cash payment from the Company equal in value to the market price of one share per unit of the Company s common stock as of the date that is six months following the date of the termination of Dr. Howe s board membership. (9) Includes 361,235 shares held by HealthCare Ventures VI,

Ventures VI, L.P. and 74,670 shares held by HealthCare Ventures VIII, L.P. Mr. Lawlor is a general partner of HealthCare Partners VI, L.P., which is the general partner of HealthCare Ventures VI, L.P. Mr. Lawlor is a managing director of HealthCare Partners VIII, LLC, which is the general partner of HealthCare Partners VIII, L.P., which is the general partner of HealthCare Ventures VIII, L.P. Mr. Lawlor disclaims beneficial ownership of these shares except to the extent of his pecuniary interest therein. Does not include 6,884 vested restricted stock units that represent the right to receive a cash payment from the Company equal in value to the market price of one share per unit of the Company s common stock as of the date that is six months following the date of the termination of Mr. Lawlor s board membership.

(10) Includes 48,524 shares issuable upon the exercise of options exercisable within 60 days of October 16, 2009. Also includes 246,524 shares and 122,605 shares issuable upon the exercise of warrants exercisable within 60 days of October 16, 2009, held by GDN Holdings, LLC, of which Dr. Nelson is the sole owner. Does not include 8,621 vested restricted stock units that represent the right to receive a cash payment from the Company equal in value to the market price of one share per unit of the Company s common stock as of the date that is six months following the date of the termination of Dr. Nelson s board membership.

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Includes 333,286 shares issuable upon the exercise of options and warrants exercisable within 60 days of October 16, 2009. Also includes 32,350 shares held by Applecrest Partners LTD Partnership, of which Mr. Petrucci is the General Partner. Does not include 8,621 vested restricted stock units that represent the right to receive a cash payment from the Company equal in value to the market price of one share per unit of the Company s common stock as of the date that is six months following the date of the termination of Mr. Petrucci s board membership.

(12) Includes

1,825,372 shares issuable upon the exercise of options and warrants

exercisable within 60 days of October 16, 2009, and 355,956 shares of restricted stock that are subject to a risk of forfeiture.

(13) Includes 398,679 shares and 316,061 shares issuable upon the exercise of warrants exercisable within 60 days of October 16, 2009, held by Easton Hunt Capital Partners, L.P. and 398,679 shares and 208.228 shares issuable upon the exercise of warrants exercisable within 60 days of October 16, 2009, held by Easton Capital Partners, LP. Investment decision of Easton Hunt Capital Partners, L.P. are made by EHC GP, LP through its General Partner, EHC, Inc. Mr. Friedman. one of the Company s directors, is the President and Chief Executive Officers of EHC, Inc. Investment decisions of Easton Capital Partners, LP are made by its General Partner,

ECP GP, LLC, through its manager ECP GP, Inc. Mr. Friedman is the President and Chief Executive Officer of EHC, Inc. and ECP GP, Inc. Mr. Friedman shares voting and investment power of the shares owned by Easton Hunt Capital Partners, L.P. and Easton Capital Partners, L.P. Also includes 58,229 shares issuable upon the exercise of options exercisable within 60 days of October 16, 2009, issued to Mr. Friedman that are held for the benefit of entities affiliated with Easton Capital Investment Group. Does not include 8,621 vested restricted stock units that represent the right to receive a cash payment from the Company equal in value to the market price of one share per unit of the Company s

common stock as of the date that is six months following the date of the termination of Mr. Friedman s board membership, issued to Mr. Friedman that are held for the benefit of entities affiliated with Easton Capital Investment Group. Mr. Friedman disclaims beneficial ownership of securities held by entities affiliated with **Easton Capital** Investment Group except as to his pecuniary interest therein. The address for the entities affiliated with **Easton Capital** Investment Group is 767 Third Avenue, 7th Floor, New York, New York, 10017.

(14) Includes

(i) 601,114 shares and 359,018 shares issuable upon the exercise of warrants exercisable within 60 days of October 16, 2009, held by Maverick Fund, L.D.C.; (ii) 242,682 shares and 144,942 shares issuable upon the exercise of warrants exercisable within 60 days of October 16, 2009, held by Maverick Fund USA, Ltd.; and (iii) 523,020 shares and 312,375 shares issuable upon the exercise of warrants exercisable within 60 days of October 16, 2009, by Maverick Fund II, Ltd. Maverick Capital, Ltd. is an investment adviser registered under Section 203 of the Investment Advisers Act of 1940 and, as such, may be deemed to have beneficial ownership of the shares held by Maverick Fund, L.D.C., Maverick Fund USA, Ltd., and Maverick Fund II, Ltd., and through the investment discretion it

exercises over these accounts. Maverick Capital Management, LLC is the general partner of Maverick Capital, Ltd. Lee S. Ainslie III is the manager of Maverick Capital Management, LLC who possesses sole investment discretion pursuant to Maverick Capital Management, LLC s regulations. The address for the entities affiliated with Maverick Capital, Ltd. is 300 Crescent Court, 18th Floor, Dallas, Texas 75201. (15) Includes (i) 5,176 shares and 2,591 shares issuable upon the exercise of warrants exercisable within 60 days of October 16,

2009, held by Mitsui & Co. Venture Partners, Inc.; 256,235 shares and 128,312 warrants issuable upon the exercise of warrants exercisable within 60 days of October 16, 2009, held by Mitsui & Co. (U.S.A.), Inc.; and (iii) 256,235 shares and 128,312 shares issuable upon the exercise of warrants exercisable within 60 days of October 16, 2009, held by MCVP Holding, Inc. Mitsui & Co. Ltd. is the direct 100% owner of each of Mitsui & Co. (U.S.A.), Inc. and MCVP Holding, Inc., and the indirect majority owner of Mitsui & Co. Venture Partners, Inc. Accordingly, Mitsui & Co. Ltd. may be deemed to be the beneficial owner of the shares of Common Stock held by Mitsui & Co. Venture Partners, Inc., Mitsui & Co. (U.S.A.), Inc., and MCVP Holding, Inc. Mitsui & Co. Ltd. disclaims beneficial

ownership with respect to any shares directly owned by Mitsui & Co. Venture Partners, Inc., Mitsui & Co. (U.S.A.), Inc., and MCVP Holding, Inc.

Equity Compensation Plan Information

The following table presents the equity compensation plan information as of June 30, 2009:

	Number of securities to be issued upon	Weighted-average	securities remaining available for future issuance under
	exercise of outstanding options, warrants,	exercise price of outstanding options, warrants	equity compensation plans (excluding securities reflected
	and rights	and rights	in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security	2 ((2 5 0 2	¢ 10.40	004 (07
holders	3,662,592	\$ 10.42	234,687(1)
Equity compensation plans not approved by security			
holders	3,161,415(2)	\$ 8.87	
TOTAL	6,824,007	\$ 9.70	234,687

(1) Includes 42,600 shares of common stock available for issuance under the Company s 2007 Equity Incentive Plan. as amended (the 2007 Plan), and 192,087 shares of common stock available for issuance under the Company s **Employee Stock** Purchase Plan, as amended (the ESPP). The 2007 Plan

includes a renewal provision whereby the Number of

number of shares shall automatically be increased on the first day of each fiscal year beginning July 1, 2008, and ending July 1, 2017, by the lesser of (i) 970,500 shares, (ii) 5% of the outstanding common shares on such date, or (iii) a lesser amount determined by the Board. On July 1, 2009 the number of shares available for grant was increased by 705,695 under the 2007 Plan s renewal provision. The ESPP allows for an annual increase in reserved shares on July 1

in reserved shares on July 1 equal to the lesser of (i) one percent of the outstanding common shares outstanding (ii) 180,000 shares, provided that the Board may designate a smaller amount of shares to be reserved. On July 1, 2009, 141,139 shares were added to ESPP.

(2) Represents outstanding warrants to selling agents and investors issued in connection with financing transactions, warrants issued to former preferred stockholders in connection with the merger, and non-qualified stock options granted to employees, directors and consultants outside of the 2007 Plan and our other equity incentive plans. For information regarding these warrants and options, refer to our consolidated financial statements for the years ended June 30, 2009 and 2008.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Pursuant to its written charter adopted as of the closing of the merger (and subsequently amended), the Audit Committee has the responsibility to review and approve all transactions to which a related party and we may be a party prior to their implementation to assess whether such transactions meet applicable legal requirements. Except as described in this Report, since the beginning of fiscal 2009, there were no related party transactions arising or existing requiring disclosure under applicable Nasdaq listing standards, SEC rules and regulations or the Company s policy and procedures.

Loan Guarantees

On September 12, 2008, we entered into a loan and security agreement with Silicon Valley Bank. The agreement originally included a \$3.0 million term loan, a \$5.0 million accounts receivable line of credit, and two term loans for an aggregate of \$5.5 million that were guaranteed by certain of our affiliates. One of our directors and one entity affiliated with one of our directors agreed to act as guarantors of these term loans. Those guaranteed \$2.0 million. Nelson, M.D., who guaranteed \$1.0 million, and Easton Capital Investment Group, which guaranteed \$2.0 million.

Our director John H. Friedman is the Managing Partner of Easton Capital Investment Group. In consideration for guaranteeing the term loans, we issued the guarantors warrants to purchase shares of our

common stock at an exercise price of \$9.28 per share in the following amounts: Easton Capital Investment Group, 107,833 shares, and Dr. Nelson, 53,916 shares. These warrants are immediately exercisable and have terms of five years from the date of grant. The guarantees were released on April 30, 2009.

The issuance of the warrants to the guarantors was approved by the Board and not separately by the Audit Committee, but Dr. Nelson and Mr. Friedman recused themselves from the Board discussions relating to this matter and did not vote on it.

Preferred Stockholder Conversion Agreement

Concurrently with the execution of the merger agreement with Replidyne, the holders of approximately 68% of CSI-MN s outstanding preferred stock, calculated on an as-converted to common stock basis, entered into an agreement pursuant to which all outstanding shares of CSI-MN preferred stock were automatically converted into shares of common stock, effective as of immediately prior to the effective time of the merger. Parties to this agreement included entities affiliated with John H. Friedman and Glen D. Nelson, M.D., who are directors of the Company. In consideration for entering into such agreement, we issued to the holders of preferred stock warrants to purchase 2,264,264 shares of common stock at an exercise price of \$8.83 per share, pro rata to each such holder based on its percentage of the outstanding shares of preferred stock on an as-converted to common stock basis.

The preferred stockholder conversion agreement was approved by the Board and not separately by the Audit Committee. The directors who were not holders of preferred stock or affiliated with entities that held preferred stock formed a special committee to negotiate this agreement with representatives of the preferred stockholders, including Dr. Nelson and Mr. Friedman.

Registration Rights Agreement

Effective as of March 16, 2009, we entered into a registration rights agreement with certain stockholders, including the following stockholders who are directors or entities affiliated with directors: Easton Hunt Capital Partners, L.P.; Easton Capital Partners, LP; GDN Holdings LLC; Glen D. Nelson; Brent G. Blackey; Gary M. Petrucci; Healthcare Ventures VI, L.P.; Healthcare Ventures VIII, L.P.; TPG Biotechnology Partners, L.P.; TPG Ventures, L.P.; and Edward Brown. In addition, the following parties to the registration rights agreement are officers: Paul Koehn and Robert J. Thatcher. The registration rights agreement provides the stockholders who are parties with the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing, as follows:

Demand Rights. At any time after six months after the closing of the merger, which occurred on February 25, 2009, the holders of an aggregate of at least 20% of the stock subject to the agreement may demand that we file a registration statement on up to three occasions, covering those securities held by the demanding holders.

Piggyback Rights. Parties to the registration rights agreement are also entitled to piggyback registration rights that entitle them to participate in any registration undertaken by us (except registrations for business combinations or employee benefit plans) subject to the right of an underwriter to cut back participation of the parties.

Shelf Registration Rights. In addition, when we are a registrant entitled to use Form S-3, the parties to the registration rights agreement may demand that we file a registration statement on Form S-3, provided that at least \$1 million of stock is included in the registration.

The registration rights agreement was approved by the Board immediately following the closing of the merger and not separately by the Audit Committee. The registration rights agreement was intended to continue the registration rights previously granted to certain significant stockholders of Replidyne and to certain significant and management shareholders of CSI-MN who would continue to hold shares subject to restrictions on transfer under the federal securities laws following the merger. All of our other stockholders held or received registered shares immediately following the closing of the merger and therefore were not subject to restrictions under the securities laws with respect to those shares.

Item 14. Principal Accountant Fees and Services ACCOUNTANT FEES

In connection with the audit of the fiscal 2009 financial statements, the Company entered into an engagement agreement with PricewaterhouseCoopers LLP, which sets forth the terms by which PricewaterhouseCoopers LLP will perform audit services for the Company.

The following table represents aggregate fees billed to the Company for the fiscal years ended June 30, 2009 and June 30, 2008, by PricewaterhouseCoopers LLP, the Company s principal accountant. All fees described below were approved by the Audit Committee.

	2009	2008
Audit Fees ⁽¹⁾	\$ 631,270	\$ 1,129,226
Audit-Related Fees ⁽²⁾	175,500	
Tax Fees ⁽³⁾	112,373	45,685
All Other Fees ⁽⁴⁾	11,000	1,500
	\$ 930,143	\$ 1,176,411

- (1) Audit Fees were
 - principally for services rendered for the audit and/or review of our consolidated financial statements. Also includes fees for services rendered in connection with the filing of registration statements and other documents with the SEC, the issuance of accountant consents and comfort letters and assistance in responding to SEC comment letters.
- (2) Audit-Related Fees were for due diligence and consulting related to the merger.
- (3) Tax Fees consist of fees billed in the indicated year for professional services performed by PricewaterhouseCoopers LLP with respect to tax compliance, tax advice and tax planning.

(4)

All Other Fees consist of fees billed in the indicated year for other permissible work performed by PricewaterhouseCoopers LLP that is not included within the above category descriptions.

PRE-APPROVAL POLICIES AND PROCEDURES

Pursuant to its written charter, the Audit Committee is required to pre-approve the audit and non-audit services performed by our independent auditors. The Audit Committee may not approve non-audit services prohibited by applicable regulations of the Securities and Exchange Commission if such services are to be provided contemporaneously while serving as independent auditors. The Audit Committee has delegated authority to the Chairman of the Audit Committee to approve the commencement of permissible non-audit related services to be performed by the independent auditors and the fees payable for such services, provided that the full Audit Committee subsequently ratifies and approves all such services. The Audit Committee has determined that the rendering of the services other than audit services by PricewaterhouseCoopers LLP is compatible with maintaining the principal accountant s independence.

DIRECTOR INDEPENDENCE

As required under the Nasdaq Stock Market (Nasdaq) listing standards, a majority of the members of a listed company s Board of Directors must qualify as independent, as affirmatively determined by the Board of Directors. The Board of Directors consults with the Company s counsel to ensure that the Board of Directors determinations are consistent with relevant securities and other laws and regulations regarding the definition of independent, including those set forth in pertinent listing standards of the Nasdaq, as in effect from time to time.

Consistent with these considerations, after review of all relevant transactions or relationships between each director, or any of his or her family members, and the Company, its senior management and its independent registered public accounting firm, the Board of Directors, following the determination of the Governance/Nominating Committee, has affirmatively determined that the following directors are independent directors within the meaning of the applicable Nasdaq listing standards: Messrs. Blackey, Brown, Friedman, Lawlor

and Petrucci and Drs. Hartzler, Howe and Nelson. In making this determination, the Board of Directors found that none of these directors or nominees for director had a material or other disqualifying relationship with the Company. Mr. Martin, the Company s President and Chief Executive Officer, is not an independent director by virtue of his employment with the Company.

Item 15. Exhibits, Financial Statement Schedules

Exhibits. See Exhibit Index to Form 10-K immediately following the signature page of this Amendment.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CARDIOVASCULAR SYSTEMS, INC.

Date: October 28, 2009	By: /s/ David L. Martin
	David L. Martin
	President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ David L. Martin	President, Chief Executive Officer and Director	October 28, 2009
David L. Martin	(principal executive officer)	
/s/ Laurence L. Betterley	Chief Financial Officer (principal financial and accounting	October 28, 2009
Laurence L. Betterley	officer)	
*	Director	October 28, 2009
Edward Brown		
*	Director	October 28, 2009
Brent G. Blackey		
	Director	October 28, 2009
John H. Friedman		
*	Director	October 28, 2009
Geoffrey O. Hartzler		
	Director	October 28, 2009
Roger J. Howe		
/s/ Augustine Lawlor	Director	October 28, 2009
Augustine Lawlor		
*	Director	October 28, 2009

Glen D. Nelson

*

Director

October 28, 2009

Gary M. Petrucci

/s/ Laurence L. Betterley * By Laurence L. Betterley, Attorney-in-Fact

EXHIBIT INDEX CARDIOVASCULAR SYSTEMS, INC. FORM 10-K

Exhibit No. 3.1	Description Restated Certificate of Incorporation, as amended.(7)
3.2	Amended and Restated Bylaws.(2)
4.1	Specimen Common Stock Certificate.(2)
4.2	Form of Cardiovascular Systems, Inc. common stock warrant issued to former preferred stockholders.(2)
4.3	Registration Rights Agreement by and among Cardiovascular Systems, Inc. and certain of its stockholders, dated as of March 16, 2009.(1)
4.4	Termination of Fourth Amended and Restated Stockholders Agreement by and among Cardiovascular Systems, Inc. and certain of its stockholders, dated as of March 16, 2009.(1)
10.1	Client s Agreement, dated March 24, 2008, by and between Cardiovascular Systems, Inc., a Minnesota corporation, and UBS Financial Services Inc.(3)
10.2	Borrower Agreement and Credit Line Agreement, dated July 24, 2008, by and between Cardiovascular Systems, Inc., a Minnesota corporation, and UBS Bank USA.(3)
10.3	Loan and Security Agreement, dated September 12, 2008, by and between Cardiovascular Systems, Inc., a Minnesota corporation, and Silicon Valley Bank.(4)
10.4	Assumption Agreement and First Amendment to Loan and Security Agreement, dated as of February 25, 2009, by and between Silicon Valley Bank, Cardiovascular Systems, Inc. and CSI Minnesota, Inc.(7)
10.5	Second Amendment to Loan and Security Agreement between Silicon Valley Bank and Cardiovascular Systems, Inc., dated April 30, 2009.(9)
10.6	Amended and Restated Warrant to Purchase Stock, dated February 25, 2009, issued by Cardiovascular Systems, Inc. to Silicon Valley Bank.(7)
10.7	Form of Warrant to Guarantors, dated September 12, 2008.(4)
10.8	Lease, dated September 26, 2005, by and between Cardiovascular Systems, Inc., a Minnesota corporation, and Industrial Equities Group LLC.(3)
10.9	First Amendment to the Lease, dated February 20, 2007, by and between Cardiovascular Systems, Inc., a Minnesota corporation, and Industrial Equities Group LLC.(3)
10.10	Second Amendment to the Lease, dated March 9, 2007, by and between Cardiovascular Systems, Inc., a Minnesota corporation, and Industrial Equities Group LLC.(3)

- 10.11 Third Amendment to the Lease, dated September 26, 2007, by and between Cardiovascular Systems, Inc., a Minnesota corporation, and Industrial Equities Group LLC.(3)
- 10.12 Lease Agreement, dated October 25, 2005, by and between the Registrant and Triumph 1450 LLC.(8)
- 10.13 Assumption of Lease, dated March 23, 2009 by Cardiovascular Systems, Inc.(7)

Exhibit No. 10.14	Description Employment Agreement, dated December 19, 2006, by and between Cardiovascular Systems, Inc., a Minnesota corporation, and David L. Martin.(3)
10.15	Employment Agreement, dated April 14, 2008, by and between Cardiovascular Systems, Inc., a Minnesota corporation, and Laurence L. Betterley.(3)
10.16	Form of Standard Employment Agreement.(3)
10.17	Summary of Fiscal Year 2009 Executive Officer Base Salaries.(7)
10.18	Summary of Fiscal Year 2009 Executive Officer Annual Cash Incentive Compensation.(7)
10.19	Form of Director and Officer Indemnification Agreement.(7)
10.20	Cardiovascular Systems, Inc. Amended and Restated 2007 Equity Incentive Plan.(5)
10.21	Form of Incentive Stock Option Agreement under the Amended and Restated 2007 Equity Incentive Plan.(7)
10.22	Form of Non-Qualified Stock Option Agreement under the Amended and Restated 2007 Equity Incentive Plan.(7)
10.23	Form of Restricted Stock Agreement under the Amended and Restated 2007 Equity Incentive Plan.(7)
10.24	Form of Restricted Stock Unit Agreement under the Amended and Restated 2007 Equity Incentive Plan.(7)
10.25	Form of Performance Share Award under the Amended and Restated 2007 Equity Incentive Plan.(7)
10.26	Form of Performance Unit Award under the Amended and Restated 2007 Equity Incentive Plan.(7)
10.27	Form of Stock Appreciation Rights Agreement under the Amended and Restated 2007 Equity Incentive Plan.(7)
10.28	2003 Stock Option Plan of Cardiovascular Systems, Inc., a Minnesota corporation.(3)
10.29	Form of Incentive Stock Option Agreement under the 2003 Stock Option Plan of Cardiovascular Systems, Inc., a Minnesota corporation.(3)
10.30	Form of Nonqualified Stock Option Agreement under the 2003 Stock Option Plan of Cardiovascular Systems, Inc., a Minnesota corporation.(3)
10.31	1991 Stock Option Plan of Cardiovascular Systems, Inc., a Minnesota corporation.(3)
10.32	Form of Non-Qualified Stock Option Agreement outside the 1991 Stock Option Plan of Cardiovascular Systems, Inc., a Minnesota corporation.(3)

- 10.33 Cardiovascular Systems, Inc. Amended and Restated 2006 Employee Stock Purchase Plan.(6)
- 10.34 Director Compensation Arrangements.(10)
- 10.35 Corporate Job Creation Agreement between Pearland Economic Development Corporation and Cardiovascular Systems, Inc., dated June 17, 2009.(10)
- 10.36 Build-To-Suit Lease Agreement between Pearland Economic Development Corporation and 2

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Exhib No.	it Description Cardiovascular Systems, Inc., dated September 9, 2009.(10)
14.1	Code of Ethics.(10)
23.1	Consent of PricewaterhouseCoopers LLP.(10)
24.1	Power of Attorney.(10)
31.1*	Certification of principal executive officer required by Rule 13a-14(a).
31.2*	Certification of principal financial officer required by Rule 13a-14(a).
*]	Filed herewith.
]	Compensatory plan or greement.
 Previously filed with the SEC as an Exhibit to and incorporated herein by reference from 	

reference from the Company s Current Report on Form 8-K filed on March 18, 2009.

- (2) Previously filed with the SEC as an Exhibit to and incorporated herein by reference from the Company s Current Report on Form 8-K filed on March 3, 2009.
- (3) Previously filed with the SEC as an Exhibit to and incorporated

herein by reference from CSI Minnesota, Inc. s Registration Statement on Form S-1, File No. 333-148798. (4) Previously filed with the SEC as an Exhibit to and incorporated herein by reference from CSI Minnesota, Inc. s Registration Statement on Form 10, File No. 000-53478. (5) Previously filed with the SEC as an Exhibit to and incorporated herein by reference from the Company s Registration Statement on Form S-8, File No. 333-158755. (6) Previously filed with the SEC as an Exhibit to and incorporated herein by reference from the Company s Registration Statement on Form S-8, File No. 333-158987.

 (7) Previously filed with the SEC as an Exhibit to and incorporated herein by reference from the Company s Quarterly Report on Form 10-Q for the quarter ended March 31, 2009.

- (8) Previously filed with the SEC as an Exhibit to and incorporated herein by reference from the Company s Registration Statement on Form S-1, File No. 333-133021.
- (9) Previously filed with the SEC as an Exhibit to and incorporated herein by reference from the Company s Current Report on Form 8-K filed on May 4, 2009.
- (10) Previously filed with the SEC as an Exhibit to and incorporated herein by reference from the Company Annual Report on Form 10-K filed on September 29, 2009.