

Cardiovascular Systems Inc  
Form SC 13G/A  
February 11, 2016  
UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
SCHEDULE 13G

Under the Securities Exchange Act of 1934  
(Amendment No. 1)\*

Cardiovascular Systems, Inc.  
(Name of Issuer)

Common Stock, par value \$0.001 per share  
(Title of Class of Securities)

141619106  
(CUSIP Number)

December 31, 2015  
(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)  
 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 Instructions).

CUSIP No.: 141619106

1 NAME OF REPORTING PERSON  
Consonance Capital Management LP  
I.R.S. IDENTIFICATION NO. OF ABOVE  
PERSON (ENTITIES ONLY)

2 CHECK THE APPROPRIATE BOX IF A  
MEMBER OF A GROUP  
(a)    
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF  
ORGANIZATION  
Delaware

NUMBER OF 5 SOLE VOTING POWER  
SHARES

BENEFICIALLY 6 SHARED VOTING POWER

OWNED BY EACH 7 SOLE DISPOSITIVE POWER  
REPORTING  
PERSON WITH

9 8 SHARED DISPOSITIVE POWER  
AGGREGATE AMOUNT BENEFICIALLY  
OWNED BY EACH REPORTING PERSON

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

11 PERCENT OF CLASS REPRESENTED BY  
AMOUNT IN ROW (9)

12 TYPE OF REPORTING PERSON  
IA, PN

CUSIP No.: 141619106

1 NAME OF REPORTING PERSON  
Mitchell Blutt  
I.R.S. IDENTIFICATION NO. OF ABOVE  
PERSON (ENTITIES ONLY)

2 CHECK THE APPROPRIATE BOX IF A  
MEMBER OF A GROUP  
(a)   
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF  
ORGANIZATION  
USA

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

5 SOLE VOTING POWER

6 SHARED VOTING POWER

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

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

11 PERCENT OF CLASS REPRESENTED BY  
AMOUNT IN ROW (9)

12 TYPE OF REPORTING PERSON  
HC, IN

CUSIP No.: 141619106

1 NAME OF REPORTING PERSON  
Consonance Capman GP LLC  
I.R.S. IDENTIFICATION NO. OF ABOVE  
PERSON (ENTITIES ONLY)

2 CHECK THE APPROPRIATE BOX IF A  
MEMBER OF A GROUP  
(a)    
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF  
ORGANIZATION  
Delaware

NUMBER OF 5 SOLE VOTING POWER  
SHARES

BENEFICIALLY 6 SHARED VOTING POWER

OWNED BY EACH 7 SOLE DISPOSITIVE POWER  
REPORTING  
PERSON WITH

9 8 SHARED DISPOSITIVE POWER  
AGGREGATE AMOUNT BENEFICIALLY  
OWNED BY EACH REPORTING PERSON

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

11 PERCENT OF CLASS REPRESENTED BY  
AMOUNT IN ROW (9)

12 TYPE OF REPORTING PERSON  
HC, OO

CUSIP No.: 141619106

**ITEM NAME OF ISSUER:**

**1(a).** Cardiovascular Systems, Inc.

**ITEM ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES:**

**1(b).** 651 Campus Drive  
St. Paul, Minnesota 55112-3495

**ITEM NAME OF PERSON FILING:**

**2(a).** Consonance Capital Management LP  
Mitchell Blutt  
Consonance Capman GP LLC

**ITEM ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE:**

**2(b).** 1370 Avenue of the America  
Suite 3301  
New York, NY 10019

**ITEM CITIZENSHIP:**

**2(c).** Delaware  
USA  
Delaware

**ITEM TITLE OF CLASS OF SECURITIES:**

**2(d).** Common Stock, par value \$0.001 per share

**ITEM CUSIP NUMBER:**

**2(e).** 141619106

**ITEM 3. IF THIS STATEMENT IS FILED PURSUANT TO SECTION 240.13d-1(b), or 13d-2(b) or (c) CHECK WHETHER THE PERSON FILING IS A:**

- (a) Broker or dealer registered under Section 15 of the Act (15 U.S.C. 78c);
- (b) Bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c) Insurance company as defined in Section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d) Investment company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8);
- (e) An investment adviser in accordance with 240.13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with 240.13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with 240.13d-1(b)(1)(ii)(G);
- (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

- (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 (15 U.S.C. 80a-3);
- (j)  A non-U.S. institution in accordance with 240.13d-1(b)(1)(ii)(J);
- (k)  Group, in accordance with 240.13d-1(b)(1)(ii)(K). If filing as a non-U.S. institution in accordance with 240.13d-1(b)(1)(ii)(J), please specify the type of institution:

**ITEM 4. OWNERSHIP**

**(a) Amount beneficially owned:**

Not applicable.

**(b) Percent of class:**

Not applicable.

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

(i) sole power to vote or to direct the vote:

Consonance Capital Management LP - 0  
Mitchell Blutt - 0  
Consonance Capman GP LLC - 0

(ii) shared power to vote or to direct the vote:

Consonance Capital Management LP - 0  
Mitchell Blutt - 0  
Consonance Capman GP LLC - 0

(iii) sole power to dispose or direct the disposition of:

Consonance Capital Management LP - 0  
Mitchell Blutt - 0  
Consonance Capman GP LLC - 0

(iv) shared power to dispose or to direct the disposition of:

Consonance Capital Management LP - 0  
Mitchell Blutt - 0  
Consonance Capman GP LLC - 0

**ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS:**

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 [X].

**ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON:**

The ownership information in Item 4 is incorporated herein by reference.

**ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY:**

Not applicable.

**ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP:**

Not applicable.

**ITEM 9. NOTICE OF DISSOLUTION OF GROUP:**

Not applicable.

**ITEM CERTIFICATION:**

**10.** By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and 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.

CUSIP No.: 141619106

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.

February 11 2016 CONSONANCE CAPITAL MANAGEMENT LP

By:

Consonance Capman GP LLC /s/ Mitchell Blutt

Name:

Mitchell Blutt

Title:

Manager & Member

February 11 2016 CONSONANCE CAPMAN GP LLC

By:

/s/ Mitchell Blutt

Name:

Mitchell Blutt

Title:

Manager & Member

February 11 2016 CONSONANCE CAPITAL MANAGEMENT LP

By:

Consonance Capman GP LLC /s/ Mitchell Blutt

Name:

Mitchell Blutt

Title:

Manager & Member

Attention — Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C. 1001).



CUSIP No.: 141619106

EXHIBIT 99.1

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the persons named below agree to the joint filing on behalf of each of them of a Statement on Schedule 13G dated February 11, 2016 (including amendments thereto) with respect to the Common Stock, par value \$0.001 per share, of Cardiovascular Systems, Inc. This Joint Filing Agreement shall be filed as an Exhibit to such Statement. The undersigned acknowledge that each shall be responsible for the timely filing of any amendments to such joint filing and for the completeness and accuracy of the information concerning him or it contained herein and therein, but shall not be responsible for the completeness and accuracy of the information concerning the others.

CONSONANCE CAPITAL MANAGEMENT LP

By: Consonance Capman GP LLC

By: /s/ Mitchell Blutt

Name: Mitchell Blutt

Title: Manager & Member

CONSONANCE CAPMAN GP LLC

By: /s/ Mitchell Blutt

Name: Mitchell Blutt

Title: Manager & Member

/s/ Mitchell Blutt

MITCHELL BLUTT