

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 13G
(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO RULES 13d-1(b)(c), AND (d) AND AMENDMENTS THERETO FILED
PURSUANT TO RULE 13d-2(b)

(Amendment No. ____) *

AngioDynamics, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

03475V101

(CUSIP Number)

August 10, 2011

(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)

(Page 1 of 12 Pages)

* 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 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).

1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) Deerfield Capital, L.P.	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="radio"/> (b) <input checked="" type="radio"/>	
3.	SEC USE ONLY	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 504,236(1)
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER 504,236(1)
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 504,236(1)	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES <input type="checkbox"/> CERTAIN SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 2.02%	
12.	TYPE OF REPORTING PERSON* PN	

(1) Comprised of 159,188 shares of common stock held by Deerfield Partners, L.P. and 345,348 shares of common stock held by Deerfield Special Situations Fund, L.P.

1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) Deerfield Partners, L.P.	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="radio"/> (b) <input checked="" type="radio"/>	
3.	SEC USE ONLY	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 159,188
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER 159,188
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 159,188	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES <input type="checkbox"/> CERTAIN SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 0.64%	
12.	TYPE OF REPORTING PERSON* PN	

1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) Deerfield Special Situations Fund, L.P.	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="radio"/> (b) <input checked="" type="radio"/>	
3.	SEC USE ONLY	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 345,348
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER 345,348
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 345,348	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES <input type="checkbox"/> CERTAIN SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 1.38%	
12.	TYPE OF REPORTING PERSON* PN	

1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)	
	Deerfield Management Company, L.P.	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*	(a) <input type="radio"/> (b) <input checked="" type="radio"/>
3.	SEC USE ONLY	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION	
	Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 751,840 (2)
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER 751,840 (2)
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 751,840 (2)	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES <input type="checkbox"/> CERTAIN SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 3.01%	
12.	TYPE OF REPORTING PERSON* PN	

(2) Comprised of 212,763 shares of common stock held by Deerfield International Limited and 539,077 shares of common stock held by Deerfield Special Situations International Limited.

1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)	
	Deerfield International Limited	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="radio"/> (b) <input checked="" type="radio"/>	
3.	SEC USE ONLY	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION	
	British Virgin Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 212,763
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER 212,763
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 212,763	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES <input type="checkbox"/> CERTAIN SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 0.85%	
12.	TYPE OF REPORTING PERSON* CO	

1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) Deerfield Special Situations Fund International Limited	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="radio"/> (b) <input checked="" type="radio"/>	
3.	SEC USE ONLY	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION British Virgin Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 539,077
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER 539,077
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 539,077	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES <input type="checkbox"/> CERTAIN SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 2.16%	
12.	TYPE OF REPORTING PERSON* CO	

1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) James E. Flynn	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input type="radio"/> (b) <input checked="" type="radio"/>	
3.	SEC USE ONLY	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 1,256,376 (3)
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER 1,256,376 (3)
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,256,376 (3)	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES <input type="checkbox"/> CERTAIN SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 5.03%	
12.	TYPE OF REPORTING PERSON* IN	

(3) Comprised of 159,188 shares of common stock held by Deerfield Partners, L.P., 345,348 shares of common stock held by Deerfield Special Situations Fund, L.P., 212,763 shares of common stock held by Deerfield International Limited and 539,077 shares of common stock held by Deerfield Special Situations International Limited.

CUSIP No. 03475V101

Item 1(a). Name of Issuer:

AngioDynamics, Inc.

Item 1(b). Address of Issuer's Principal Executive Offices:

14 Plaza Drive
Latham, NY 12110

Item 2(a). Name of Person Filing:

James E. Flynn, Deerfield Capital, L.P., Deerfield Partners, L.P.,
Deerfield Special Situations Fund, L.P., Deerfield Management
Company, L.P., Deerfield International Limited, Deerfield Special
Situations Fund International Limited

Item 2(b). Address of Principal Business Office, or if None, Residence:

James E. Flynn, Deerfield Capital, L.P., Deerfield Partners, L.P.
Deerfield Special Situations Fund, L.P., Deerfield Management
Company, L.P., 780 Third Avenue, 37th Floor, New York, NY 10017
Deerfield International Limited, Deerfield Special Situations
International Limited c/o Citi Hedge Fund
Services (B.V.I.) Ltd., Bison Court, Columbus Centre, P.O. Box 3460, Road Town,
Tortola, D8, British Virgin Islands

Item 2(c). Citizenship:

Mr. Flynn - United States citizen
Deerfield Capital, L.P., Deerfield Partners, L.P., Deerfield Management Company,
L.P. and Deerfield Special Situations Fund, L.P. - Delaware limited partnerships
Deerfield International Limited and Deerfield Special Situations
International Limited - British Virgin Islands corporations

Item 2(d). Title of Class of Securities:

Common Stock

Item 2(e). CUSIP Number:

03475V101

Item 3. If This Statement is Filed Pursuant to Rule 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 Exchange Act.
 - (b) Bank as defined in Section 3(a)(6) of the Exchange Act.
 - (c) Insurance company as defined in Section 3(a)(19) of the Exchange Act.
 - (d) Investment company registered under Section 8 of the Investment Company Act.
 - (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);
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- (h) o A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;
- (i) o A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act;
- (j) o Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned**:

Deerfield Capital, L.P. – 504,536 shares
 Deerfield Partners, L.P. – 159,188 shares
 Deerfield Special Situations Fund, L.P. – 345,348 shares
 Deerfield Management Company, L.P. – 751,840 shares
 Deerfield International Limited – 212,763 shares
 Deerfield Special Situations International Limited – 539,077 shares
 James E. Flynn – 1,256,376 shares.

(b) Percent of class**:

Deerfield Capital, L.P. – 2.02%
 Deerfield Partners, L.P. – 0.64%
 Deerfield Special Situations Fund, L.P. – 1.38%
 Deerfield Management Company, L.P. – 3.01%
 Deerfield International Limited – 0.85%
 Deerfield Special Situations International Limited – 2.16%
 James E. Flynn – 5.03%

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

(i) Sole power to vote or to direct the vote

0

(ii) Shared power to vote or to direct the vote

Deerfield Capital, L.P. – 504,536
 Deerfield Partners, L.P. – 159,188
 Deerfield Special Situations Fund, L.P. – 345,348
 Deerfield Management Company, L.P. – 751,840
 Deerfield International Limited – 212,763
 Deerfield Special Situations Fund International
 Limited – 539,077
 James E. Flynn – 1,256,376

(iii) Sole power to dispose or to direct the disposition of

0

(iv) Shared power to dispose or to direct the disposition of

Deerfield Capital, L.P. – 504,536
 Deerfield Partners, L.P. – 159,188
 Deerfield Special Situations Fund, L.P. – 345,348
 Deerfield Management Company, L.P. – 751,840
 Deerfield International Limited – 212,763
 Deerfield Special Situations Fund International
 Limited – 539,077
 James E. Flynn – 1,256,376

** See footnotes on cover pages which are incorporated by reference herein.

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 o.

Item 6. Ownership of More Than Five Percent on Behalf of Another Person.

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.

N/A

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

If a parent holding company or Control person has filed this schedule, pursuant to Rule 13d-1(b)(1)(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 or control person 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.

N/A

Item 8. Identification and Classification of Members of the Group.

If a group has filed this schedule pursuant to ss.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 ss.240.13d-1(c) or ss.240.13d-1(d), attach an exhibit stating the identity of each member of the group.

See Exhibit B

Item 9. Notice of Dissolution of Group.

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.)

N/A

Item 10. Certifications.

"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 such 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.

DEERFIELD CAPITAL, L.P.

By: J.E. Flynn Capital LLC, General Partner

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD PARTNERS, L.P.

By: Deerfield Capital, L.P., General Partner

By: J.E. Flynn Capital LLC, General Partner

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS FUND, L.P.

By: Deerfield Capital, L.P., General Partner

By: J.E. Flynn Capital LLC, General Partner

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD MANAGEMENT COMPANY, L.P.

By: Flynn Management LLC, General Partner

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD INTERNATIONAL LIMITED

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL LIMITED

By: /s/ David Clark
David Clark, Attorney-In-Fact

JAMES E. FLYNN

/s/ David Clark
David Clark, Attorney-In-Fact

Date: August 22, 2011

Exhibit List

Exhibit A . Joint Filing Agreement.

Exhibit B. Item 8 Statement.

Exhibit C . Power of Attorney.

Exhibit A

Agreement

The undersigned agree that this Schedule 13G Amendment, and all further amendments thereto, relating to the Common Stock of AngioDynamics, Inc. shall be filed on behalf of the undersigned.

DEERFIELD CAPITAL, L.P.

By: J.E. Flynn Capital LLC, General Partner

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD PARTNERS, L.P.

By: Deerfield Capital, L.P., General Partner

By: J.E. Flynn Capital LLC, General Partner

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS FUND, L.P.

By: Deerfield Capital, L.P., General Partner

By: J.E. Flynn Capital LLC, General Partner

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD MANAGEMENT COMPANY, L.P.

By: Flynn Management LLC, General Partner

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD INTERNATIONAL LIMITED

By: /s/ David Clark
David Clark, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL LIMITED

By: /s/ David Clark
David Clark, Attorney-In-Fact

JAMES E. FLYNN

/s/ David Clark
David Clark, Attorney-In-Fact

Exhibit B

Due to the relationships between them, the reporting persons hereunder may be deemed to constitute a “group” with one another for purposes of Section 13(d)(3) of the Securities Exchange Act of 1934.

POWER OF ATTORNEY

Know all by these presents, each of the undersigned hereby constitutes and appoints David Clark, signing singly, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned (i) Forms 3, 4 and 5 (and all amendments thereto) in accordance with Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules thereunder and (ii) reports on Schedule 13G and Schedule 13D (and all amendments thereto) in accordance with Section 13 of the Exchange Act and the rules thereunder, in each case with respect to the beneficial ownership of securities by the undersigned;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 3, 4 or 5 or Schedule 13G or Schedule 13D, complete and execute any amendment or amendments thereto, and file such form with the United States Securities and Exchange Commission and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming any of the undersigned's responsibilities to comply with Section 13 or Section 16 of the Exchange Act.

This Power of Attorney shall remain in full force and effect until revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact.

IN WITNESS WHEREOF, each the undersigned has caused this Power of Attorney to be executed as of this 22nd day of August, 2011.

DEERFIELD CAPITAL, L.P.

By: J.E. Flynn Capital LLC, General Partner

By: /s/ James E. Flynn
James E. Flynn, President

DEERFIELD SPECIAL SITUATIONS FUND, L.P.

By: Deerfield Capital, L.P., General Partner

By: J.E. Flynn Capital LLC, General Partner

By: /s/ James E. Flynn
James E. Flynn, President

DEERFIELD MANAGEMENT COMPANY, L.P.

By: Flynn Management LLC, General Partner

By: /s/ James E. Flynn
James E. Flynn, President

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL LIMITED

By: /s/ James E. Flynn
James E. Flynn, Director

DEERFIELD PARTNERS, L.P.

By: Deerfield Capital, L.P., General Partner

By: J.E. Flynn Capital LLC, General Partner

By: /s/ James E. Flynn
James E. Flynn, President

DEERFIELD INTERNATIONAL LIMITED

By: /s/ James E. Flynn
James E. Flynn, Director

JAMES E. FLYNN

/s/ James E. Flynn