REPLIGEN CORP Form SC 13G/A May 20, 2009

SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

SCHEDULE 13G/A (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 13d-2(b)

(Amendment No. 5)* Repligen Corporation

(Name of Issuer)

Common Stock

(Title of Class of Securities)

759916109

(CUSIP Number)

May 15, 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:

- o Rule 13d-1(b)
- x Rule 13d-1(c)
- o 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 on 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*).

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No	. 759916109				_
1	NAME OF REPORTIN Biotechnology Value I I.R.S. IDENTIFICATIO	Fund, L.P.	PERSONS (ENTITIES ONLY):		
2	CHECK THE APPRO	PRIATE BOX IF A ME	MBER OF A GROUP*		(a) x (b) o
3	SEC USE ONLY				
4	CITIZENSHIP OR PL. Delaware	ACE OF ORGANIZAT	ION		
	JMBER OF	5	SOLE VOTING POWER 0		
BEN	SHARES IEFICIALLY OWNED BY	6	SHARED VOTING POWER 825,750		
	EACH EPORTING PERSON	7	SOLE DISPOSITIVE POWER 0		
	WITH:	8	SHARED DISPOSITIVE POWER 825,750	2	
9	AGGREGATE AM REPORTING PERS 825,750	OUNT BENEFICIALL ON	Y OWNED BY EACH		
10	CHECK IF THE AC EXCLUDES CERT	GREGATE AMOUNT AIN SHARES*	' IN ROW (9)	0	

- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 2.69%
- 12 TYPE OF REPORTING PERSON* PN

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	NAME OF REPORTING PERS Biotechnology Value Fund II, I.R.S. IDENTIFICATION NOS	L.P.	ONS (ENTITIES ONLY):	
2	CHECK THE APPROPRIATE	BOX IF A MEMBE	R OF A GROUP*	(a) x (b) o
3	SEC USE ONLY			
	CITIZENSHIP OR PLACE OF Delaware	ORGANIZATION		
	MBER OF SHARES	5	SOLE VOTING POWER 0	
BEN	EFICIALLY OWNED BY	6	SHARED VOTING POWER 534,400	
	EACH PORTING PERSON	7	SOLE DISPOSITIVE POWE 0	R
	WITH:	8	SHARED DISPOSITIVE PO 534,400	WER
9	AGGREGATE AMOUNT B REPORTING PERSON 534,400	ENEFICIALLY OW	NED BY EACH	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) o EXCLUDES CERTAIN SHARES*		0	
11	PERCENT OF CLASS REP 1.74%	RESENTED BY AM	OUNT IN ROW (9)	
12	TYPE OF REPORTING PEF PN	RSON*		

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759916109	

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- NAME OF REPORTING PERSON: BVF Investments, L.L.C.
 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
- 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) x (b) o
- 3 SEC USE ONLY
- 4 CITIZENSHIP OR PLACE OF ORGANIZATION Delaware

	5	SOLE VOTING POWER
NUMBER OF		0
SHARES		
BENEFICIALLY	6	SHARED VOTING POWER
OWNED		1,856,700
BY		
EACH	7	SOLE DISPOSITIVE POWER
REPORTING		0
PERSON		
WITH:	8	SHARED DISPOSITIVE POWER
		1,856,700

- 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,856,700
- 10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* o
- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.05%
- 12 TYPE OF REPORTING PERSON* OO

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	NAME OF REPORTING PERS Investment 10, L.L.C. I.R.S. IDENTIFICATION NOS		ONS (ENTITIES ONLY):	
2	CHECK THE APPROPRIATE	BOX IF A MEMBER	A OF A GROUP*	(a) x (b) o
3	SEC USE ONLY			
	CITIZENSHIP OR PLACE OF Illinois	ORGANIZATION		
	MBER OF SHARES	5	SOLE VOTING POWER 0	
BEN	EFICIALLY OWNED BY	6	SHARED VOTING POWER 200,100	
	EACH PORTING PERSON	7	SOLE DISPOSITIVE POWER 0	
_	WITH:	8	SHARED DISPOSITIVE POWER 200,100	
9	AGGREGATE AMOUNT B REPORTING PERSON 200,100	ENEFICIALLY OW	NED BY EACH	
10	200,100 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) o EXCLUDES CERTAIN SHARES*			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) .65%			
12	TYPE OF REPORTING PER OO	SON*		

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1	NAME OF REPORTING PERSON: BVF Partners L.P. I.R.S. IDENTIFICATION NOS. OF A	BOVE PERSONS	(ENTITIES ONLY):
2	CHECK THE APPROPRIATE BOX I	F A MEMBER OF	F A GROUP* (a) x (b) o

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION Delaware

	5	SOLE VOTING POWER
NUMBER OF		0
SHARES		
BENEFICIALLY	6	SHARED VOTING POWER
OWNED		3,416,950
BY		
EACH	7	SOLE DISPOSITIVE POWER
REPORTING		0
PERSON		
WITH:	8	SHARED DISPOSITIVE POWER
		3,416,950

- 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,416,950
- 10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

0

- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 11.13%
- 12 TYPE OF REPORTING PERSON* PN, HC

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1	NAME OF REPORTING PERSON: BVF Inc. S.S. OR I.R.S. IDENTIFICATION NOS. OF	F ABOVE PERSONS (ENTITIES ONL	Y):
2	CHECK THE APPROPRIATE BOX IF A M	MEMBER OF A GROUP*	(a) x (b) o

- 3 SEC USE ONLY
- 4 CITIZENSHIP OR PLACE OF ORGANIZATION Delaware

	5	SOLE VOTING POWER
NUMBER OF		0
SHARES		
BENEFICIALLY	6	SHARED VOTING POWER
OWNED		3,416,950
BY		
EACH	7	SOLE DISPOSITIVE POWER
REPORTING		0
PERSON		
WITH:	8	SHARED DISPOSITIVE POWER
		3,416,950

- 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,416,950
- 10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

0

- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 11.13%
- 12 TYPE OF REPORTING PERSON* HC, CO

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1	NAME OF REPORTING PERSON: Mark N. Lampert S.S. OR I.R.S. IDENTIFICATION NOS. O	F ABOVE PERSONS (ENTITIES	SONLY):
2	CHECK THE APPROPRIATE BOX IF A M	MEMBER OF A GROUP*	(a) x (b) o

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION United States

	5	SOLE VOTING POWER
NUMBER OF		0
SHARES		
BENEFICIALLY	6	SHARED VOTING POWER
OWNED		3,416,950
BY		
EACH	7	SOLE DISPOSITIVE POWER
REPORTING		0
PERSON		
WITH:	8	SHARED DISPOSITIVE POWER
		3,416,950

- 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,416,950
- 10 CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

0

- 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 11.13%
- 12 TYPE OF REPORTING PERSON* IN

CUSIP No. 759916109

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ITEM 1(a). NAME OF ISSUER:

Repligen Corporation ("Repligen")

ITEM 1(b). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES:

41 Seyon Street, Bldg 1, Suite 100 Waltham, MA 02453 United States

ITEM 2(a). NAME OF PERSON FILING:

This Amendment No. 5 to Schedule 13G is being filed on behalf of the following persons (the "Reporting Persons"):

- (i) Biotechnology Value Fund, L.P. ("BVF")
- (ii) Biotechnology Value Fund II, L.P. ("BVF2")
- (iii) BVF Investments, L.L.C. ("BVFLLC")
- (iv) Investment 10, L.L.C. ("ILL10")
- (v) BVF Partners L.P. ("Partners")
- (vi) BVF Inc. ("BVF Inc.")
- (vii) Mark N. Lampert ("Mr. Lampert")

ITEM 2(b). ADDRESS OF PRINCIPAL BUSINESS OFFICE:

The principal business office of the Reporting Persons comprising the group filing this Amendment No. 5 to Schedule 13G is located at 900 North Michigan Avenue, Suite 1100, Chicago, Illinois, 60611.

ITEM 2(c). CITIZENSHIP:

BVF:	a Delaware limited partnership
BVF2:	a Delaware limited partnership
BVFLLC:	a Delaware limited liability company
ILL10:	an Illinois limited liability company
Partners:	a Delaware limited partnership
BVF Inc.:	a Delaware corporation
Mark N. Lampert	United States

ITEM 2(d). TITLE OF CLASS OF SECURITIES:

This Amendment No. 5 to Schedule 13G is being filed with respect to the common stock, par value \$0.01 per share ("Common Stock"), of Repligen. The Reporting Persons' percentage ownership of Common Stock is based on 30,691,707 shares of Common Stock being outstanding.

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As of May 15, 2009, BVF beneficially owned 825,750 shares of Common Stock, BVF2 beneficially owned 534,400 shares of Common Stock, BVFLLC beneficially owned 1,856,700 shares of Common Stock and ILL10 beneficially owned 200,100 shares of Common Stock. Beneficial ownership by Partners, BVF Inc., and Mr. Lampert includes 3,416,950 shares of Common Stock.

ITEM 2(e). CUSIP Number:

759916109

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: One of the following

Not applicable as this Amendment No. 5 to Schedule 13G is filed pursuant to Rule 13d-1(c).

ITEM 4. OWNERSHIP:

The information in items 1 and 5 through 11 on the cover pages (pp. 2 - 8) on this Amendment No. 5 to Schedule 13G is hereby incorporated by reference.

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 Persons have ceased to be the beneficial owner of more than five percent of the class of securities check the following.

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

Pursuant to the operating agreement of BVFLLC, Partners is authorized, among other things, to invest the contributed capital of Samana Capital, L.P., the majority member of BVFLLC, in the shares of Common Stock and other securities and to vote, exercise or convert and dispose of such securities and is entitled to receive fees based on assets under management and, subject to certain exceptions, allocations based on realized and unrealized gains on such assets. Partners and BVF Inc. share voting and dispositive power over shares of the Common Stock beneficially owned by BVF, BVF2, BVFLLC and those owned by ILL10, on whose behalf Partners acts as an investment manager and, accordingly, Partners and BVF Inc. have beneficial ownership of all of the shares of the Common Stock owned by such parties.

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

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Mr. Lampert is the owner, sole director and an officer of BVF Inc. BVF Inc. is the general partner of Partners, which is the general partner of BVF2. Partners is the manager of BVFLLC and is investment adviser to ILL10.

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF A GROUP:

The members of the group making this filing on Amendment No. 5 to Schedule 13G are: Biotechnology Value Fund, L.P., Biotechnology Value Fund II, L.P., BVF Investments, L.L.C., Investment 10, L.L.C., BVF Partners L.P., BVF Inc. and Mr. Lampert.

ITEM 9. NOTICE OF DISSOLUTION OF GROUP:

Not applicable.

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ITEM 10. CERTIFICATION

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.

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.

Dated: May 20, 2009

BIOTECHNOLOGY VALUE FUND, L.P.

By: BVF Partners L.P., its general partner

- By: BVF Inc., its general partner
 - By: /s/ Mark N. Lampert Mark N. Lampert President

BIOTECHNOLOGY VALUE FUND II, L.P.

By: BVF Partners L.P., its general partner

By: BVF Inc., its general partner

By:	/s/ Mark N. Lampert
	Mark N. Lampert
	President

BVF INVESTMENTS, L.L.C.

By: BVF Partners L.P., its manager

By: BVF Inc., its general partner

By:

/s/ Mark N. Lampert Mark N. Lampert President

INVESTMENT 10, L.L.C

By:

BVF Par	rtners L.P., its a	uttorney-in-fact	
By:	BVF Inc., its general partner		
	By:	/s/ Mark N. Lampert Mark N. Lampert President	
DADTNEDS	TD		

BVF PARTNERS L.P.

By: BVF Inc., its general partner

By: /s/ Mark N. Lampert Mark N. Lampert President

BVF INC.

By:

/s/ Mark N. Lampert Mark N. Lampert President

MARK N. LAMPERT

By: /s/ Mark N. Lampert

Exhibit A JOINT FILING AGREEMENT

The undersigned agree that this Amendment No. 5 to Schedule 13G, dated May 20, 2009, relating to the Common Stock of Repligen Corporation shall be filed on behalf of the undersigned.

Dated: May 20, 2009

BIOTECHNOLOGY VALUE FUND, L.P.

By: BVF Partners, L.P., its general partner

By: BVF Inc., its general partner

By: /s/ Mark N. Lampert

Mark N. Lampert, President

BIOTECHNOLOGY VALUE FUND II, L.P.

By: BVF Partners, L.P., its general partner

By: BVF Inc., its general partner

By: /s/ Mark N. Lambert

Mark N. Lampert, President

BVF INVESTMENTS, L.L.C.

By: BVF Partners, L.P., its manager

By: BVF Inc., its general partner

By: /s/ Mark N. Lampert

Mark N. Lampert, President

INVESTMENT 10, L.L.C.

By: BVF Partners, L.P., its investment manager

By: BVF Inc., its general partner

By: /s/ Mark N. Lampert

Mark N. Lampert, President

BVF PARTNERS L.P.

By: BVF Inc., its general partner

By: /s/ Mark N. Lampert

Mark N. Lampert, President

BVF INC.

By: /s/ Mark N. Lampert

Mark N. Lampert, President

MARK N. LAMPERT

By: <u>/s/ Mark N. Lampert</u>

Mark N. Lampert