

**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. )<sup>1</sup>

Catalyst Biosciences, Inc.  
(Name of Issuer)

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

14888D 109  
(CUSIP Number)

August 19, 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)

<sup>1</sup> 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 NOS. OF ABOVE PERSONS (ENTITIES ONLY)	
	Biotechnology Value Fund, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 shares
	6	SHARED VOTING POWER  579,023 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  579,023 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  579,023 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  5.0% (1)	
12	TYPE OF REPORTING PERSON*  PN	

(1) Includes 153,606 shares of Common Stock issuable upon the conversion of the Convertible Note (defined below). Excludes 196,356 shares of Common Stock issuable upon the exercise of the Convertible Note. Pursuant to the terms of the Convertible Note, the Reporting Person may not acquire shares of Common Stock upon exercise of the Convertible Note to the extent that, upon exercise, the number of shares of Common Stock beneficially owned by the Reporting Persons would exceed 9.99% of the issued and outstanding shares of Common Stock of the Issuer. See Item 4 for a full description.

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)	
	Biotechnology Value Fund II, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 shares
	6	SHARED VOTING POWER  244,843 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  244,843 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  244,843 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  2.1% (1)	
12	TYPE OF REPORTING PERSON*  PN	

(1) Excludes 201,416 Shares of Common Stock issuable upon the exercise of the Convertible Note. Pursuant to the terms of the Convertible Note, the Reporting Person may not acquire Shares of Common Stock upon exercise of the Convertible Note to the extent that, upon exercise, the number of Shares of Common Stock beneficially owned by the Reporting Persons would exceed 9.99% of the issued and outstanding Shares of Common Stock of the Issuer. See Item 4 for a full description.

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)	
	BVF Investments, L.L.C.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 shares
	6	SHARED VOTING POWER 49,926 (1)
	7	SOLE DISPOSITIVE POWER 0 shares
	8	SHARED DISPOSITIVE POWER 49,926 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 49,926 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) Less than 1% (1)	
12	TYPE OF REPORTING PERSON* OO	

(1) Excludes 41,070 Shares of Common Stock issuable upon the exercise of the Convertible Note. Pursuant to the terms of the Convertible Note, the Reporting Person may not acquire Shares of Common Stock upon exercise of the Convertible Note to the extent that, upon exercise, the number of Shares of Common Stock beneficially owned by the Reporting Persons would exceed 9.99% of the issued and outstanding Shares of Common Stock of the Issuer. See Item 4 for a full description.

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)	
	Investment 10, L.L.C.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION	
	Illinois	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  0 shares
	6	SHARED VOTING POWER  161,480 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  161,480 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  161,480 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  1.4% (1)	
12	TYPE OF REPORTING PERSON*  OO	

(1) Excludes 132,838 Shares of Common Stock issuable upon the exercise of the Convertible Note. Pursuant to the terms of the Convertible Note, the Reporting Person may not acquire Shares of Common Stock upon exercise of the Convertible Note to the extent that, upon exercise, the number of Shares of Common Stock beneficially owned by the Reporting Persons would exceed 9.99% of the issued and outstanding Shares of Common Stock of the Issuer. See Item 4 for a full description.

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)	
	MSI BVF SPV, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 shares
	6	SHARED VOTING POWER  121,208 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  121,208 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  121,208 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  1.1% (1)	
12	TYPE OF REPORTING PERSON*  OO	

(1) Excludes 99,710 Shares of Common Stock issuable upon the exercise of the Convertible Note. Pursuant to the terms of the Convertible Note, the Reporting Person may not acquire Shares of Common Stock upon exercise of the Convertible Note to the extent that, upon exercise, the number of Shares of Common Stock beneficially owned by the Reporting Persons would exceed 9.99% of the issued and outstanding Shares of Common Stock of the Issuer. See Item 4 for a full description..

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)  BVF Partners L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 shares
	6	SHARED VOTING POWER  1,156,480 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  1,156,480 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,156,480 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  9.99% (1)	
12	TYPE OF REPORTING PERSON*  PN, IA	

(1) Includes 153,606 Shares of Common Stock issuable upon the conversion of the Convertible Note. Excludes 671,390 Shares of Common Stock issuable upon the exercise of the Convertible Note. Pursuant to the terms of the Convertible Note, the Reporting Person may not acquire Shares of Common Stock upon exercise of the Convertible Note to the extent that, upon exercise, the number of Shares of Common Stock beneficially owned by the Reporting Persons would exceed 9.99% of the issued and outstanding Shares of Common Stock of the Issuer. See Item 4 for a full description.

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)	
	BVF Inc.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 shares
	6	SHARED VOTING POWER  1,156,480 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  1,156,480 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,156,480 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  9.99% (1)	
12	TYPE OF REPORTING PERSON*  CO	

(1) Includes 153,606 Shares of Common Stock issuable upon the conversion of the Convertible Note. Excludes 671,390 Shares of Common Stock issuable upon the exercise of the Convertible Note. Pursuant to the terms of the Convertible Note, the Reporting Person may not acquire Shares of Common Stock upon exercise of the Convertible Note to the extent that, upon exercise, the number of Shares of Common Stock beneficially owned by the Reporting Persons would exceed 9.99% of the issued and outstanding Shares of Common Stock of the Issuer. See Item 4 for a full description.

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)	
	Mark N. Lampert	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
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 shares
	6	SHARED VOTING POWER
		1,156,480 (1)
	7	SOLE DISPOSITIVE POWER
		0 shares
	8	SHARED DISPOSITIVE POWER
		1,156,480 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	1,156,480 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)	
	9.99% (1)	
12	TYPE OF REPORTING PERSON*	
	IN	

(1) Includes 153,606 Shares of Common Stock issuable upon the conversion of the Convertible Note. Excludes 671,390 Shares of Common Stock issuable upon the exercise of the Convertible Note. Pursuant to the terms of the Convertible Note, the Reporting Person may not acquire Shares of Common Stock upon exercise of the Convertible Note to the extent that, upon exercise, the number of Shares of Common Stock beneficially owned by the Reporting Persons would exceed 9.99% of the issued and outstanding Shares of Common Stock of the Issuer. See Item 4 for a full description.

Item 1(a). Name of Issuer:  
Catalyst Biosciences, Inc., a Delaware corporation (the “Issuer”).

Item 1(b). Address of Issuer's Principal Executive Offices:  
100 North Main Street, Suite 1510  
Winston-Salem, North Carolina 27101

Item 2(a). Name of Person Filing  
Item 2(b). Address of Principal Business Office or, if None, Residence  
Item 2(c). Citizenship

Biotechnology Value Fund, L.P. (“BVF”)  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: Delaware

Biotechnology Value Fund II, L.P. (“BVF2”)  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: Delaware

BVF Investments, L.L.C. (“BVLLC”)  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: Delaware

Investment 10, L.L.C. (“ILL10”)  
900 North Michigan Avenue, Suite 1100  
Chicago, Illinois 60611  
Citizenship: Illinois

MSI BVF SPV, LLC (“MSI”)  
c/o Magnitude Capital, LLC  
601 Lexington Avenue, 59th Floor  
New York, NY 10022  
Citizenship: Delaware

BVF Partners L.P. (“Partners”)  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: Delaware

BVF Inc.  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: Delaware

Mark N. Lampert (“Mr. Lampert”)  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: United States

Each of the foregoing is referred to as a “Reporting Person” and collectively as the “Reporting Persons.”

Item 2(d). Title of Class of Securities:  
Common Stock, par value \$0.001 per share (the “Common Stock”)

Item 2(e). CUSIP Number:  
14888D 109

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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:

x Not applicable.

- (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).
- (h)  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.
- (j)  Group, in accordance with Rule 13d-1(b)(1)(ii)(J).
- (k)  Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K). If filing as a non-U.S. institution in accordance with Rule 240.13d-1(b)(1)(ii)(J), please specify the type of institution: \_\_\_\_\_

Item 4. Ownership

(a) Amount beneficially owned:

The Reporting Persons hold convertible notes exercisable for an aggregate of 824,996 shares of Common Stock (the "Convertible Notes"). The Convertible Notes are currently exercisable, subject to certain limitations. The Reporting Persons modified the Convertible Note to limit the ability to convert the Convertible Notes to Shares if the Reporting Persons hold above 9.99% of the outstanding Shares. The Reporting Persons may change such 9.99% limitation to a different percentage limitation, but such change in limitation will not be effective until 61 days after notice is delivered to the Issuer. If the Issuer takes certain actions under the Convertible Note, then any change in limitation by the Reporting Persons will be effective immediately upon notice delivered to the Issuer. The Convertible Note may not be exercised if, after such exercise, the Reporting Persons would beneficially own, as determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, more than 9.99% of the shares of Common Stock outstanding immediately after giving effect to such exercise.

As of August 20, 2015, since the Reporting Persons in the aggregate meet the 9.99% limitation, the shares described herein as being beneficially owned by the Reporting Persons exclude certain of the shares of Common Stock underlying the Convertible Note.

As of the close of business on August 20, 2015, (i) BVF beneficially owned 579,023 shares of Common Stock, including 153,606 shares of Common Stock issuable upon the exercise of the Convertible Note, and excluding 196,356 shares of Common Stock issuable upon the exercise of the Convertible Note (ii) BVF2 beneficially owned 244,843 shares of Common Stock, excluding 201,416 shares of Common Stock issuable upon the exercise of the Convertible Note (iii) BVLLC beneficially owned 49,926 shares of Common Stock, excluding 41,070 shares of Common Stock issuable upon the exercise of the Convertible Note (iv) ILL10 beneficially owned 161,480 shares of Common Stock, excluding 132,838 shares of Common Stock issuable upon the exercise of the Convertible Note and (v) MSI beneficially owned 121,208 shares of Common Stock, excluding 99,710 shares of Common Stock issuable upon the exercise of the Convertible Note.

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Partners, as the general partner of BVF and BVF2, the manager of BVLLC, and the investment adviser of each of ILL10 and MSI, may be deemed to beneficially own the 1,156,480 shares of Common Stock beneficially owned in the aggregate by BVF, BVF2, BVLLC, ILL10 and MSI, including 153,606 shares of Common Stock issuable upon the exercise of the Convertible Note and excluding 671,390 shares of Common Stock issuable upon the exercise of the Convertible Note.

BVF Inc., as the general partner of Partners, may be deemed to beneficially own the 1,156,480 shares of Common Stock beneficially owned by Partners, including 153,606 shares of Common Stock issuable upon the exercise of the Convertible Note and excluding 671,390 shares of Common Stock issuable upon the exercise of the Convertible Note.

Mr. Lampert, as a director and officer of BVF Inc. may be deemed to beneficially own the 1,156,480 shares of Common Stock beneficially owned by BVF Inc, including 153,606 shares of Common Stock issuable upon the exercise of the Convertible Note and excluding 671,390 shares of Common Stock issuable upon the exercise of the Convertible Note.

The foregoing should not be construed in and of itself as an admission by any Reporting Person as to beneficial ownership of any shares of Common Stock, and any shares of Common Stock issuable upon the exercise of the Convertible Note owned by another Reporting Person. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the shares of Common Stock beneficially owned by BVF, BVF2, ILL10, BVLLC and MSI, and the filing of this statement shall not be construed as an admission that any such person or entity is the beneficial owner of any such securities.

(b) Percent of class:

The following percentages are based on 11,416,984 shares of Common Stock outstanding as of August 20, 2015, as disclosed to the Reporting Persons by the Issuer.

As of the close of business on August 20, 2015, (i) BVF beneficially owned approximately 5.0% of the outstanding shares of Common Stock, (ii) BVF2 beneficially owned approximately 2.1% of the outstanding shares of Common Stock, (iii) BVLLC owned less than 1% of the outstanding shares of Common Stock, (iv) ILL10 beneficially owned approximately 1.4% of the outstanding shares of Common Stock, (v) MSI beneficially owned approximately 1.1% of the outstanding shares of Common Stock, and (vi) each of Partners, BVF Inc. and Mr. Lampert may be deemed to beneficially own approximately 9.99% of the outstanding shares of Common Stock.

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

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

See Cover Pages Items 5-9.

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

See Cover Pages Items 5-9.

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

See Cover Pages Items 5-9.

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

See Cover Pages Items 5-9.

Item 5. Ownership of Five Percent or Less of a Class.

Not Applicable.

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

Pursuant to the operating agreement of BVLLC, Partners is authorized, among other things, to invest the contributed capital of Samana Capital, L.P., the majority member of BVLLC, in the shares of Common Stock and other securities of the Issuer and to vote, exercise or convert and dispose of each security, 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. As of August 20, 2015 BVLLC beneficially owns 49,926 shares of Common Stock of the Issuer, excluding 41,070 shares of Common Stock issuable upon exercise of the Convertible Note.

Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the shares of Common Stock beneficially owned by BVF, BVF2, ILL10, BVLLC and MSI.

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

Not Applicable.

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

See Exhibit 99.1.

Item 9. Notice of Dissolution of Group.

Not Applicable.

Item 10. Certifications.

By signing below each of the undersigned certifies that, to the best of its 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.

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SIGNATURE

After reasonable inquiry and to the best of his knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: August 21, 2015

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

INVESTMENT 10, L.L.C.

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

MSI BVF SPV, LLC

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

/s/ Mark N. Lampert  
MARK N. LAMPERT

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

Joint Filing Agreement

The undersigned hereby agree that the Statement on Schedule 13G dated August 21, 2015 with respect to the shares of Common Stock of Catalyst Biosciences, Inc., and any further amendments thereto executed by each and any of the undersigned shall be filed on behalf of each of the undersigned pursuant to and in accordance with the provisions of Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended.

Dated: August 21, 2015

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

INVESTMENT 10, L.L.C.

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

MSI BVF SPV, LLC

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

/s/ Mark N. Lampert  
MARK N. LAMPERT

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