ARQULE INC Form SC 13D/A November 13, 2008

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

SCHEDULE 13D/A

Under the Securities Exchange Act of 1934

ArQule, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

04269E107

(CUSIP Number)

Elizabeth Delaney BVF Partners L.P. 900 North Michigan Avenue Suite 1100 Chicago, Illinois 60611 (312) 506-6500

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

November 10, 2008

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D/A, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box x

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 ("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).

1.	Names of Reporting Persons.	
2.	Biotechnology Value Fund, L Check the Appropriate Box if a (a) x	.P. Member of a Group (See Instructions)
3. 4. 5.	(b) [] SEC Use Only Source of Funds (See Instruction Check if Disclosure of Legal Property of Section 1988)	ons) WC roceedings Is Required Pursuant to Items 2(d) or 2(e)
6.	[] Citizenship or Place of Organiz	ation
Number of Shares	Delaware 7.	Sole Voting Power
Beneficially Owned by Each Reporting Person With	18.	0 Shared Voting Power
	9.	2,814,060 Sole Dispositive Power
	10.	0 Shared Dispositive Power
11. 12. 13.	Check if the Aggregate Amoun Percent of Class Represented by	
14	Type of Reporting Person (See	Instructions): PN

1.	Names of Reporting Persons.	
2.	Biotechnology Value Fund II, Check the Appropriate Box if a (a) x	L.P. Member of a Group (See Instructions)
3. 4. 5.	(b) [] SEC Use Only Source of Funds (See Instruction Check if Disclosure of Legal Property of Legal Property (See Instruction)	ons) WC roceedings Is Required Pursuant to Items 2(d) or 2(e)
6.	[] Citizenship or Place of Organiz	eation
Number of Shares Beneficially Owned by Each Reporting Person With	Delaware 7.	Sole Voting Power
	h 8.	0 Shared Voting Power
	9.	1,976,900 Sole Dispositive Power
	10.	0 Shared Dispositive Power
11. 12. 13.		
14.	T VDE OF KEDOTHIP PERSON (See	HISH UCHOUS). FIN

1.	Names of Reporting Persons.		
2.	BVF Investments, L.L.C. Check the Appropriate Box if a (a) x	Member of a Group (See Instructions)	
3. 4. 5.	(b) [] SEC Use Only Source of Funds (See Instruction Check if Disclosure of Legal Pro-	ns) WC oceedings Is Required Pursuant to Items 2(d) or 2(e)	
6.	[] Citizenship or Place of Organiza	ation	
	Delaware		
Number of	7.	Sole Voting Power	
Shares Beneficially		0	
Owned by Each Reporting Person With	18.	Shared Voting Power	
		6,817,800	
	9.	Sole Dispositive Power	
		0	
	10.	Shared Dispositive Power	
		6,817,800	
11.	Aggregate Amount Beneficially Owned by Each Reporting Person: 6,817,800		
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)[
13.	Percent of Class Represented by Amount in Row (11): 15.44%		
14.	Type of Reporting Person (See Instructions): OO		

1.	Names of Reporting Persons.		
2.	Investment 10, L.L.C. Check the Appropriate Box if a Member of a Group (See Instructions) (a) x		
3. 4. 5.	(b) [] SEC Use Only Source of Funds (See Instructions) WC Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)		
6.	[] Citizenship or Place of Organization		
Number of Shares Beneficially Owned by Eac Reporting Person With	Illinois 7.	Sole Voting Power	
	h 8.	0 Shared Voting Power	
	9.	809,000 Sole Dispositive Power	
	10.	0 Shared Dispositive Power	
11. 12. 13. 14.	•]

1.	Names of Reporting Persons.	
2.	BVF Partners L.P. Check the Appropriate Box if a (a) x	a Member of a Group (See Instructions)
3. 4. 5.	(b) [] SEC Use Only Source of Funds (See Instruction Check if Disclosure of Legal Property)	ons) OO roceedings Is Required Pursuant to Items 2(d) or 2(e)
6.	[] Citizenship or Place of Organiz	zation
Number of Shares	Delaware 7.	Sole Voting Power
Beneficially by Owned by Each Reporting Person With		0 Shared Voting Power
	9.	12,417,760 Sole Dispositive Power
	10.	0 Shared Dispositive Power
11. 12. 13.	Check if the Aggregate Amoun	12,417,760 y Owned by Each Reporting Person: 12,417,760 it in Row (11) Excludes Certain Shares (See Instructions)[y Amount in Row (11): 28.12% Instructions): PN HC

1.	Names of Reporting Persons.		
2.	BVF Inc. Check the Appropriate Box if a Member of a Group (See Instructions) (a) x		
3. 4. 5.	(b) [] SEC Use Only Source of Funds (See Instructions) OO Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)		
6.	[] Citizenship or Place of Organization		
	Delaware		
Number of	7.	Sole Voting Power	
Shares Beneficially by Owned by Each Reporting Person With	7	0	
		Shared Voting Power	
		12,417,760	
	9.	Sole Dispositive Power	
		0	
	10.	Shared Dispositive Power	
11. 12. 13. 14.	Check if the Aggregate Amoun	12,417,760 y Owned by Each Reporting Person: 12,417,760 t in Row (11) Excludes Certain Shares (See Instructions)[] y Amount in Row (11): 28.12% Instructions): CO, HC	

ITEM 1. Security and Issuer

This Schedule 13D/A relates to the common stock, par value \$0.01 per share (the "Common Stock") of ArQule, Inc., a Delaware corporation ("ARQL" or the "Issuer"). The principal executive office of ARQL is located at 19 Presidential Way, Woburn, MA 01801-5140.

ITEM 2. Identity and Background

The persons filing this Statement, the persons enumerated in Instruction C of this Statement and, where applicable, their respective places of organization, principal office, general partners, managers, directors, executive officers, controlling persons and certain information regarding each of them, are as follows:

- (a) Biotechnology Value Fund, L.P., a Delaware limited partnership ("BVF"), Biotechnology Value Fund II, L.P., a Delaware limited partnership ("BVF2"), BVF Investments, L.L.C., a Delaware limited liability company ("BVLLC"), Investment 10, L.L.C., an Illinois limited liability company ("ILL10"), BVF Partners L.P., a Delaware limited partnership ("Partners") and BVF Inc., a Delaware corporation ("BVF Inc.") specialize in holding biotechnology stocks for investment purposes. Together, BVF, BVF2, BVLLC, ILL10, Partners and BVF Inc. are the "Reporting Persons." Mark N. Lampert, an individual, ("Lampert"), is the sole shareholder, sole director and an officer of BVF Inc.
- (b) The business address of BVF, BVF2, BVLLC, ILL10 and Partners is 900 North Michigan Avenue, Suite 1100, Chicago, Illinois 60611. The business address of BVF Inc. and Lampert is One Sansome Street, 31st Floor, San Francisco, California 94104.
- (c) Partners is the general partner of BVF and BVF2, which are investment funds. Partners also is the manager of BVLLC, which is also an investment fund. ILL10 is a managed account, which Partners advises pursuant to an investment management agreement. BVF Inc. is an investment adviser to and general partner of Partners. For Lampert's occupation, please refer to (a) above.
- (d) During the last five years, none of the Reporting Persons or Lampert has been convicted in a criminal proceeding (excluding traffic violations and similar misdemeanors).
- (e) During the last five years, none of the Reporting Persons or Lampert has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction nor, as a result of such proceeding, was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
- (f) Lampert is a citizen of the United States of America. For the citizenship of each of BVF, BVF2, BVLLC, ILL10, Partners, and BVF Inc., please refer to (a) above.

ITEM 3. Source and Amount of Funds or Other Consideration

Partners, in its capacity as (i) general partner of BVF, has purchased on behalf of such limited partnership an aggregate number of 2,814,060 shares of the Common Stock for an aggregate consideration of \$13,612,693.25 (ii) general partner of BVF2, has purchased on behalf of such limited partnership an aggregate number of 1,976,900 shares of Common Stock for an aggregate consideration of \$9,432,621.60, (iii) manager of BVLLC, has purchased on behalf of such limited liability company an aggregate number of 6,817,800 shares of Common Stock for an aggregate consideration of \$33,483,001.50, and (iv) investment adviser to ILL10, purchased on behalf of such limited liability

company an aggregate of 809,000 shares of Common Stock for an aggregate consideration of \$3,947,066.10. Each of BVF, BVF2, BVLLC and ILL10 purchased the shares held by it using its own working capital. No borrowed funds were used to purchase the Common Stock other than any borrowed funds used for working capital purposes in the ordinary course of business.

ITEM 4. Purpose of Transaction

The Reporting Persons are engaged in the investment business. In pursuing this business, the Reporting Persons analyze the operations, capital structure and markets of companies, including the Issuer, on a continuous basis through analysis of documentation and discussions with knowledgeable industry and market observers and with representatives of such companies (often at the invitation of management). From time to time, one or more of the Reporting Persons may hold discussions with third parties or with management of such companies in which the Reporting Persons may suggest or take a position with respect to potential changes in the operations, management or capital structure of such companies as a means of enhancing shareholder value. Such suggestions or positions may relate to one or more of the transactions specified in clauses (a) through (j) of Item 4 of Schedule 13D of the Exchange Act, including, without limitation, such matters as disposing of or selling all or a portion of the company or acquiring another company or business, changing operating or marketing strategies, adopting or not adopting certain types of anti-takeover measures and restructuring the Issuer's capitalization or dividend policy.

Except as set forth above, the Reporting Persons do not have any present plans or proposals that relate to or would result in any of the actions required to be described in Item 4 of Schedule 13D. Each of the Reporting Persons may, at any time, review or reconsider its position with respect to the Issuer and formulate plans or proposals with respect to any of such matters, but has no present intention of doing so.

ITEM 5. Interest in Securities of the Issuer

The Reporting Persons' percentage ownership of Common Stock is based on 44,153,366 shares being outstanding.

- (a) As of November 12, 2008, BVF beneficially owns 2,814,060 shares of Common Stock, BVF2 beneficially owns 1,976,900 shares of Common Stock, BVLLC beneficially owns 6,817,800 shares of Common Stock, ILL10 beneficially owns 809,000 shares of Common Stock and each of Partners and BVF Inc. may be deemed to beneficially own 12,417,760 shares of Common Stock, representing percentage ownership of approximately 6.37%, 4.48%, 15.44%, 1.83% and 28.12%, respectively.
- (b) Each of BVF, BVF2, BVLLC and ILL10 shares with Partners voting and dispositive power over the Common Stock each such entity beneficially owns. Partners and BVF Inc. share voting and dispositive power over the 12,417,760 shares of Common Stock they may be deemed beneficially to own with BVF, BVF2 and BVLLC, and ILL10.
- (c) Trades of Common Stock within the last 60 days have been made by the following Reporting Persons:

	BVF	ILL10	BVF2	BVLLC		
Date of Type of	Price Per				Exchange	Type of
TransactionSecurities	Share					Transaction
Common						
11/10/08Stock	2.3500317,500	80,000	220,000	801,000	NASDAQ	PURCHASE
Common						
11/11/08Stock	2.250097,200	25,000	68,000	247,000	NASDAQ	PURCHASE

Common

11/12/08Stock 2.450089.000 23.000 62.000 226.000 NASDAO PURCHASE

ITEM 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

Partners is the general partner of each of BVF and BVF2 pursuant to limited partnership agreements which authorize Partners, among other things, to invest the funds of BVF and BVF2 in the shares of Common Stock and other securities and to vote, exercise or convert and dispose of such securities. Pursuant to such limited partnership agreements, Partners is entitled to receive fees based on assets under management and allocations based on realized and unrealized gains on such assets. Pursuant to the operating agreement of BVLLC, Partners is authorized, among other things, to invest the funds of Samana Capital, L.P., the majority member of BVLLC, 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 allocations based on realized and unrealized gains on such assets. Pursuant to an investment management agreement with ILL10, Partners and BVF Inc. have authority, among other things, to invest funds of ILL10 in the shares of Common Stock and other securities and to vote, exercise or convert and dispose of such securities. Pursuant to such investment management agreement, Partners and BVF Inc. receive fees based on realized and unrealized gains thereon. BVF Inc. is the general partner of Partners and may be deemed to own beneficially securities over which Partners exercises voting and dispositive power.

ITEM 7. Material to be filed as Exhibits

A Joint Filing Agreement on behalf of the Reporting Persons is filed herewith as Exhibit A.

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.

Dated: November 13, 2008

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 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

*The Reporting Person disclaims beneficial ownership except to the extent of its pecuniary interest therein.

Exhibit A

JOINT FILING AGREEMENT

The undersigned agree that this Schedule 13D/A dated November 13, 2008, relating to the Common Stock of ARQL shall be filed on behalf of the undersigned.

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 Partners L.P., its investment manager

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.

/s/ Mark N. Lampert

By: Mark N. Lampert

President