UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 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. $10)^1$

Cytokinetics, Incorporated (Name of Issuer)

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

23282W605

(CUSIP Number)

December 31, 2019

(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)

¹ 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 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 ("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*).

	NAME OF DESCE		
1	NAME OF REPOR	TING PERSON	
		y Value Fund, L.P.	
2	CHECK THE APP	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) 🗆
	CEC LICE ONLY		
3	SEC USE ONLY		
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
	Delaware		
NUMBER OF	5	SOLE VOTING POWER	
SHARES			
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		3,617,776	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
	0	SHARED DISFOSITIVE FOWER	
		3,617,776	
9	AGGREGATE AM	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
-			
	3,617,776		
10	CHECK BOX IF T	HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	C 10/		
12	6.1% TYPE OF REPORT		
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	PN		
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1	NAME OF REPO	RTING PERSON	
	BVF I GP L		
2	CHECK THE API	PROPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) 🗆
3	SEC USE ONLY		
4	CITIZENSHIP OF	R PLACE OF ORGANIZATION	
·			
	Delaware		
NUMBER OF SHARES	5	SOLE VOTING POWER	
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING PERSON WITH	7	3,617,776 SOLE DISPOSITIVE POWER	
TERSON WITH	/	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		3,617,776	
9	AGGREGATE AN	NOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
10	3,617,776	THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
10	CHECK BOX IF	THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CL	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	6.1%		
12	TYPE OF REPOR	TING PERSON	
·	00		

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1	NAME OF REPOR	TING PERSON	
		y Value Fund II, L.P.	
2	CHECK THE APPE	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵
			(b) 🗆
3	SEC USE ONLY		
4	CITIZENCIUD OD	PLACE OF ORGANIZATION	
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
	Delaware		
NUMBER OF	5	SOLE VOTING POWER	
SHARES	5		
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		2,861,622	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		2,861,622	
9	AGGREGATE AM	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	2,861,622		
10		HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
10	CHECK DOA IF II	TE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CLA	SS REPRESENTED BY AMOUNT IN ROW (9)	
	4.8%		
12	TYPE OF REPORT	ING PERSON	
	PN		

1	NAME OF REPOR	RTING PERSON	
	BVF II GP L		
2	CHECK THE APP	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) 🗆
3	SEC USE ONLY		
4		PLACE OF ORGANIZATION	
+		TEACE OF ORGANIZATION	
	Delaware		
NUMBER OF	5	SOLE VOTING POWER	
SHARES BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH	U U		
REPORTING		2,861,622	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
9		2,861,622 IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
9	AGGREGALE AN	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	2,861,622		
10	CHECK BOX IF T	HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CL.	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	4.8%		
12	TYPE OF REPORT	TING PERSON	
	00		
	00		

1	NAME OF REPO	RTING PERSON	
	Biotechnolo	gy Value Trading Fund OS LP	
2	CHECK THE API	PROPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵
			(b) 🗆
3	SEC USE ONLY		
4	CITIZENSHIP OF	R PLACE OF ORGANIZATION	
	Common Iala	- J-	
NUMBER OF	Cayman Isla	SOLE VOTING POWER	
SHARES	5	SOLE VOTING POWER	
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH	0	SHARED VOTING FOWER	
REPORTING		499,312	
PERSON WITH	7	SOLE DISPOSITIVE POWER	· · · · · · · · · · · · · · · · · · ·
	,		
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		499,312	
9	AGGREGATE AN	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	499,312		
10	CHECK BOX IF	THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CL	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	Less than 1%		
12	TYPE OF REPOR	TING PERSON	
	PN		

·	1		
1	NAME OF REPOR	RTING PERSON	
	BVF Partners		
2	CHECK THE APP	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) 🗆
2	SEC USE ONLY		
3	SEC USE ONLY		
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
4		TEACE OF ORGANIZATION	
	Cayman Islaı	nds	
NUMBER OF	5	SOLE VOTING POWER	
SHARES			
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		499,312	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
	8	0 shares SHARED DISPOSITIVE POWER	
	ð	SHARED DISPOSITIVE POWER	
		499,312	
9	AGGREGATE AM	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
J			
	499,312		
10		HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	Less than 1%		
12	TYPE OF REPORT	FING PERSON	
	CO		
	CO		

1	NAME OF REPOR	RTING PERSON	
		LDINGS LLC	
2	CHECK THE APP	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵
			(b) 🗆
	CEC LICE ONLY		
3	SEC USE ONLY		
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
7			
	Delaware		
NUMBER OF	5	SOLE VOTING POWER	
SHARES			
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		6,479,398	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
	0		
		6,479,398	
9	AGGREGATE AM	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	6,479,398		
10	CHECK BOX IF T	HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11			
11	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	11.0%		
12	TYPE OF REPORT	TING PERSON	
14			
	00		
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1	NAME OF REPOR	RTING PERSON	
	BVF Partner		
2	CHECK THE APP	PROPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵
			(b) 🗆
3	SEC USE ONLY		
4	CITIZENSHIDOE	R PLACE OF ORGANIZATION	
4	CITIZENSIIII OF		
	Delaware		
NUMBER OF	5	SOLE VOTING POWER	
SHARES			
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		7,206,458	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
	0	SHARED DISPOSITIVE POWER	
		7,206,458	
9	AGGREGATE AM	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	7,206,458		
10	CHECK BOX IF 7	THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CL	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	10.00/		
12	12.2% TYPE OF REPOR	TINC DEPSON	
12	I I PE OF KEPOK		
	PN, IA		

	<u>}</u>		
1	NAME OF REPOR	TING PERSON	
	BVF Inc.		
2	CHECK THE APPI	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵
			(b) 🗆
	CEC LICE ONLY		
3	SEC USE ONLY		
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
	Delaware		
NUMBER OF	5	SOLE VOTING POWER	
SHARES			
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING PERSON WITH	7	7,206,458	
PERSON WITH	/	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
	-		
		7,206,458	
9	AGGREGATE AM	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	7,206,458		
10	CHECK BOX IF T	HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
	DERCENT OF CL	ASS REPRESENTED BY AMOUNT IN ROW (9)	
11	I ENCENT OF CLA		
	12.2%		
12	TYPE OF REPORT	TING PERSON	
	СО		
	·		

1	NAME OF REPOR	RTING PERSON	
	Mark N. Lan		
2	CHECK THE APP	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵
			(b) 🗆
3	SEC USE ONLY		
4	CITIZENCIUD OD	PLACE OF ORGANIZATION	
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
	United States	S	
NUMBER OF	5	SOLE VOTING POWER	
SHARES	5		
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		7,206,458	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		7 200 450	
9	ACCDECATE AN	7,206,458 IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
9	AGGREGALE AN	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	7,206,458		
10		HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
10			
11	PERCENT OF CL	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	12.2%		
12	TYPE OF REPORT	TING PERSON	
	IN		

Item 1(a).	Name of Issuer:	
	Cytokinetics, Incorporated, a Delaware corporation (the "Issuer").	
Item 1(b).	Address of Issuer's Principal Executive Offices:	
	280 East Grand Avenue South San Francisco, California 94080	
Item 2(a). Item 2(b). Item 2(c).	Name of Person Filing Address of Principal Business Office or, if None, Residence Citizenship	
	Biotechnology Value Fund, L.P. ("BVF") 44 Montgomery St., 40th Floor San Francisco, California 94104 Citizenship: Delaware	
	BVF I GP LLC ("BVF GP") 44 Montgomery St., 40th Floor San Francisco, California 94104 Citizenship: Delaware	
	Biotechnology Value Fund II, L.P. ("BVF2") 44 Montgomery St., 40th Floor San Francisco, California 94104 Citizenship: Delaware	
	BVF II GP LLC ("BVF2 GP") 44 Montgomery St., 40th Floor San Francisco, California 94104 Citizenship: Delaware	
	Biotechnology Value Trading Fund OS LP ("Trading Fund OS") PO Box 309 Ugland House Grand Cayman, KY1-1104 Cayman Islands	

Cayman Islands Citizenship: Cayman Islands

BVF Partners OS Ltd. ("Partners OS") PO Box 309 Ugland House Grand Cayman, KY1-1104 Cayman Islands Citizenship: Cayman Islands

BVF GP Holdings LLC ("BVF GPH") 44 Montgomery St., 40th Floor San Francisco, California 94104 Citizenship: Delaware

BVF Partners L.P. ("Partners") 44 Montgomery St., 40th Floor San Francisco, California 94104 Citizenship: Delaware

BVF Inc. 44 Montgomery St., 40th Floor San Francisco, California 94104 Citizenship: Delaware

Mark N. Lampert ("Mr. Lampert") 44 Montgomery St., 40th 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:
 - 23282W605

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:

As of the close of business on December 31, 2019, (i) BVF beneficially owned 3,617,776 shares of Common Stock, (ii) BVF2 beneficially owned 2,861,662 shares of Common Stock, (iii) Trading Fund OS beneficially owned 499,312 shares of Common Stock and (iv) 227,748 shares of Common Stock were held in a certain Partners managed account (the "Partners Managed Account").

BVF GP, as the general partner of BVF, may be deemed to beneficially own the 3,617,776 shares of Common Stock beneficially owned by BVF.

BVF2 GP, as the general partner of BVF2, may be deemed to beneficially own the 2,861,662 shares of Common Stock beneficially owned by BVF2.

Partners OS, as the general partner of Trading Fund OS, may be deemed to beneficially own the 499,312 shares of Common Stock beneficially owned by Trading Fund OS.

BVF GPH, as the sole member of each of BVF GP and BVF2 GP, may be deemed to beneficially own the 6,479,398 shares of Common Stock beneficially owned in the aggregate by BVF and BVF2.

Partners, as the investment manager of BVF, BVF2 and Trading Fund OS, and the sole member of Partners OS, may be deemed to beneficially own the 7,206,458 shares of Common Stock beneficially owned in the aggregate by BVF, BVF2, Trading Fund OS, including 227,748 shares of Common Stock held in the Partners Managed Account.

BVF Inc., as the general partner of Partners, may be deemed to beneficially own the 7,206,458 shares of Common Stock beneficially owned by Partners.

Mr. Lampert, as a director and officer of BVF Inc., may be deemed to beneficially own the 7,206,458 shares of Common Stock beneficially owned by BVF Inc.

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 owned by another Reporting Person. BVF GP disclaims beneficial ownership of the shares of Common Stock beneficially owned by BVF. BVF2 GP disclaims beneficial ownership of the shares of Common Stock beneficially owned by BVF2. Partners OS disclaims beneficial ownership of the shares of Common Stock beneficially owned by Trading Fund OS. BVF GPH disclaims beneficial ownership of the shares of Common Stock beneficially owned by BVF2. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the shares of Common Stock beneficially owned by BVF2, Trading Fund OS, and the Partners Managed Account, 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 59,161,037 shares of Common Stock outstanding as of November 7, 2019, which is the total number of shares of Common Stock outstanding as reported in the Issuer's Current Report on Form 8-K filed with the Securities and Exchange Commission on November 13, 2019.

As of the close of business on December 31, 2019, (i) BVF beneficially owned approximately 6.1% of the outstanding shares of Common Stock, (ii) BVF2 beneficially owned approximately 4.8% of the outstanding shares of Common Stock, (iii) Trading Fund OS beneficially owned less than 1% of the outstanding shares of Common Stock, (iv) BVF GP may be deemed to beneficially own approximately 6.1% of the outstanding shares of Common Stock, (v) BVF2 GP may be deemed to beneficially own approximately 4.8% of the outstanding shares of Common Stock, (vi) BVF2 GP may be deemed to beneficially own approximately 4.8% of the outstanding shares of Common Stock, (vi) BVF2 GP may be deemed to beneficially own approximately 4.8% of the outstanding shares of Common Stock, (vii) BVF GPH may be deemed to beneficially own less than 1% of the outstanding shares of Common Stock, (vii) BVF GPH may be deemed to beneficially own approximately 11.0% of the outstanding shares of Common Stock, and (viii) each of Partners, BVF Inc. and Mr. Lampert may be deemed to beneficially own approximately 12.2% of the outstanding shares of Common Stock (less than 1% of the outstanding shares of Common Stock are held in the Partners Managed Account).

Number of shares as to which such person has: (c) Sole power to vote or to direct the vote (i) 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. Ownership of More than Five Percent on Behalf of Another Person. Item 6. BVF GP, BVF GPH, Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the Shares beneficially owned by BVF. BVF GPH, Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the Shares beneficially owned by BVF2. Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the Shares beneficially owned by Trading Fund OS and the Partners Managed Account. 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. Identification and Classification of Members of the Group. Item 8. 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.

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: February 14, 2020

BIOTECHNOLOGY VALUE FUND, L.P.

By: BVF I GP LLC., its general partner

By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

BVF I GP LLC

By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

BIOTECHNOLOGY VALUE FUND II, L.P.

- By: BVF II GP LLC its general partner
- By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

BVF II GP LLC

By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

BVF PARTNERS OS LTD.

- By: BVF Partners L.P., its sole member
- By: BVF Inc., its general partner
- By: /s/ Mark N. Lampert Mark N. Lampert President

BIOTECHNOLOGY VALUE TRADING FUND OS LP

- By: BVF Partners L.P., its investment manager
- By: BVF Inc., its general partner
- By: /s/ Mark N. Lampert

Mark Lampert President

BVF GP HOLDINGS LLC

By: /s/ Mark N. Lampert Mark Lampert Chief Executive Officer

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 Lampert

President

/s/ Mark N. Lampert

MARK N. LAMPERT

Joint Filing Agreement

The undersigned hereby agree that the Statement on Schedule 13G dated February 14, 2020 with respect to the shares of Common Stock of Cytokinetics, Incorporated, 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: February 14, 2020

BIOTECHNOLOGY VALUE FUND, L.P.

- By: BVF I GP LLC., its general partner
- By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

BVF I GP LLC

By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

BIOTECHNOLOGY VALUE FUND II, L.P.

- By: BVF II GP LLC its general partner
- By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

BVF II GP LLC

By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

- BVF PARTNERS OS LTD.
- By: BVF Partners L.P., its sole member By: BVF Inc., its general partner
- By: /s/ Mark N. Lampert Mark N. Lampert President

BIOTECHNOLOGY VALUE TRADING FUND OS LP

- By: BVF Partners L.P., its investment manager
- By: BVF Inc., its general partner
- By: /s/ Mark N. Lampert

Mark Lampert President

BVF GP HOLDINGS LLC

By: /s/ Mark N. Lampert Mark Lampert Chief Executive Officer

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 Lampert President

/s/ Mark N. Lampert

MARK N. LAMPERT