Kindred Biosciences, Inc. Form SC 13G/A February 17, 2015

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. 1)1

Kindred Biosciences, Inc. (Name of Issuer)

Common stock, par value \$0.0001 per share (Title of Class of Securities)

494577109 (CUSIP Number)

December 31, 2014 (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 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 ("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 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.

CUSIP NO. 494577109

1	NAME OF REPORTING PERSON				
2	EcoR1 Capital Fund, L.P. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) o (b) o				
3	SEC USE ONLY				
4	CITIZENSHIP OR PLACE OF ORGANIZATION				
	Delaware				
NUMBER OF SHARES	Dominare	5	SOLE VOTING POWER		
BENEFICIALLY	•		0 shares		
OWNED BY		6	SHARED VOTING POWER		
EACH					
REPORTING		7	491,905		
PERSON WITH		7	SOLE DISPOSITIVE POWER		
			0 shares		
		8	SHARED DISPOSITIVE POWE	R	
9	AGGREGATE	AMOUNT BEN	491,905 EFICIALLY OWNED BY EACH	REPORTING PERSON	
	491,905				
10		F THE AGGREC	GATE AMOUNT IN ROW (9)		
10	EXCLUDES CERTAIN SHARES				
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)				
	2.5%				
12		ORTING PERSC)N		
12	TITE OF REF	OKTING I LKGC	711		
	PN				
2					
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NAME OF REPORTING PERSON

CUSIP NO. 494577109

1	TWIND OF REA	ORTHOTERS	011	
2	EcoR1 Capital Fund Qualified, L.P. CHECK THE APPROPRIATE BOX IF A MEMBER OF A (a) o			
3	GROUP (b) o SEC USE ONLY			
4	CITIZENSHIP OR PLACE OF ORGANIZATION			
NUMBER OF SHARES	Delaware	5	SOLE VOTING POWER	
BENEFICIALLY OWNED BY EACH	•	6	0 shares SHARED VOTING POWER	
REPORTING PERSON WITH		7	802,526 SOLE DISPOSITIVE POWER	
		8	0 shares SHARED DISPOSITIVE POWE	R
9	AGGREGATE	AMOUNT BEN	802,526 EFICIALLY OWNED BY EACH	REPORTING PERSON
10	802,526 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)			
12	4.1% TYPE OF REPORTING PERSON			
	PN			

NAME OF REPORTING PERSON

CUSIP NO. 494577109

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2	EcoR1 Capital, LLC CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) o (b) o				
3	SEC USE ONLY (b) 6				
4	CITIZENSHIP OR PLACE OF ORGANIZATION				
	Delaware				
NUMBER OF SHARES		5	SOLE VOTING POWER		
BENEFICIALLY	•		0 shares		
OWNED BY EACH		6	SHARED VOTING POWER		
REPORTING			1,294,431		
PERSON WITH		7	SOLE DISPOSITIVE POWER		
TERSON WITH		1	SOLE DISTOSITIVE TOWER		
			0 shares		
		0		'D	
		8	SHARED DISPOSITIVE POWE	LK .	
			1.004.401		
			1,294,431	A P P P P P P P P P P P P P P P P P P P	
9	AGGREGATE	AMOUNT BEN	EFICIALLY OWNED BY EACH	REPORTING PERSON	
	1,294,431				
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9)				
	EXCLUDES CERTAIN SHARES				
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)				
	6.6%				
12	TYPE OF REP	ORTING PERSO	ON		
	OO				
4					

CUSIP NO. 494577109

1	NAME OF REPORTING PERSON			
2	Oleg Nodelman CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (b) o SEC USE ONLY			
4	CITIZENSHIP OR PLACE OF ORGANIZATION			
NUMBER OF	United States	5	SOLE VOTING POWER	
SHARES BENEFICIALLY OWNED BY	•	6	50,000 SHARED VOTING POWER	
EACH REPORTING PERSON WITH		7	1,294,431 SOLE DISPOSITIVE POWER	
		8	50,000 SHARED DISPOSITIVE POWE	R
9	AGGREGATE	AMOUNT BEN	1,294,431 EFICIALLY OWNED BY EACH	REPORTING PERSON
10	1,344,431 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)			
12	6.8% TYPE OF REPORTING PERSON			
	IN			
5				

CUSIP NO. 494577109 Item 1(a). Name of Issuer: Kindred Biosciences, Inc., a Delaware corporation (the "Issuer"). Item 1(b). Address of Issuer's Principal Executive Offices: 1555 Bayshore Highway, Suite 200 Burlingame, California 94010 Name of Person Filing Item 2(a). Item 2(b). Address of Principal Business Office or, if None, Residence Citizenship Item 2(c). EcoR1 Capital Fund, L.P. ("Capital Fund") 409 Illinois Street San Francisco, California 94158 Citizenship: Delaware EcoR1 Capital Fund Qualified, L.P. ("Qualified Fund") 409 Illinois Street San Francisco, California 94158 Citizenship: Delaware EcoR1 Capital, LLC ("EcoR1") 409 Illinois Street San Francisco, California 94158 Citizenship: Delaware Oleg Nodelman 409 Illinois Street San Francisco, California 94158 Citizenship: United States Each of the foregoing is referred to as a "Reporting Person" and collectively as the "Reporting Persons." Title of Class of Securities: Item 2(d). Common stock, par value \$0.0001 per share (the "Common Stock") **CUSIP** Number: Item 2(e). 494577109 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.

Broker or dealer registered under Section 15 of the Exchange Act.

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(a)

(b) // Bank as defined in Section 3(a)(6) of the Exchange Act.

CUSIP NO. 494577109

	(c) // I		Insurance	e company as defined in Section 3(a)(19) of the Exchange Act.	
	(d)	/	// Inv	estment com	pany registered under Section 8 of the Investment Company Act.
		(e)	//	An ii	nvestment adviser in accordance with Rule 13d-1(b)(1)(ii)(E).
	(f)	//	An employ	vee benefit pl	lan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F).
	(g)	//	A parent	holding com	pany or control person in accordance with Rule 13d-1(b)(1)(ii)(G).
	(h)	//	A savin	gs associatio	on as defined in Section 3(b) of the Federal Deposit Insurance Act.
(i)/		-	an that is exc company Act		the definition of an investment company under Section 3(c)(14) of the
		(j)		//	Group, in accordance with Rule 13d-1(b)(1)(ii)(J).
(k)/		•			.13d-1(b)(1)(ii)(K). If filing as a non-U.S. institution in accordance with ecify the type of institution:
Item	4.				Ownership
			(a))	Amount beneficially owned:

As of the close of business on December 31, 2014, Capital Fund directly owned 491,905 shares of Common Stock and Qualified Fund directly owned 802,526 shares of Common Stock. EcoR1, as the general partner of each of Capital Fund and Qualified Fund, may be deemed to beneficially own the 1,294,431 shares of Common Stock owned in the aggregate by Capital Fund and Qualified Fund. Mr. Nodelman owns 50,000 shares of Common Stock directly, and as the Manager of EcoR1, may be deemed to beneficially own the 1,294,431 shares of Common Stock owned in the aggregate by Capital Fund and Qualified Fund.

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. Each of EcoR1 and Mr. Nodelman disclaims beneficial ownership of the shares of Common Stock directly owned by each of Capital Fund and Qualified Fund 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 19,714,482 shares of Common Stock outstanding as of November 7, 2014, which the Reporting Persons believe is the number of shares of Common Stock outstanding based on information provided by the Issuer.

As of the close of business on December 31, 2014, Capital Fund directly owned approximately 2.5% of the outstanding shares of Common Stock, Qualified Fund directly owned approximately 4.1% of the outstanding shares of Common Stock, EcoR1 may be deemed to beneficially own approximately 6.6% of the outstanding shares of Common Stock and Mr. Nodelman may be deemed to beneficially own approximately 6.8% of the outstanding shares of Common Stock.

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(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.

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

Not Applicable.

Item Identification and Classification of the Subsidiary That Acquired the Security Being Reported on by the Parent 7. 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.

CUSIP NO. 494577109

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 17, 2015 EcoR1 Capital Fund, L.P.

By: EcoR1 Capital, LLC

General Partner

By: /s/ Oleg Nodelman

Name: Oleg Nodelman

Title: Manager

EcoR1 Capital Fund Qualified, L.P.

By: EcoR1 Capital, LLC

General Partner

By: /s/ Oleg Nodelman

Name: Oleg Nodelman Title: Manager

EcoR1 Capital, LLC

By: /s/ Oleg Nodelman

Name: Oleg Nodelman

Title: Manager

/s/ Oleg Nodelman Oleg Nodelman