

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>NODELMAN OLEG</u> (Last) (First) (Middle) <u>C/O KINDRED BIOSCIENCES, INC.</u> <u>1499 BAYSHORE HIGHWAY, SUITE 226</u> (Street) <u>BURLINGAME CA 94010</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Kindred Biosciences, Inc. [KIN]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) <u>08/27/2014</u>	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	08/27/2014		P		9,927	A	\$10.7014	442,358 ⁽³⁾	I	By EcoR1 Capital Fund, L.P. ⁽¹⁾
Common Stock	08/27/2014		P		12,073	A	\$10.7014	538,073 ⁽³⁾	I	By EcoR1 Capital Fund Qualified, L.P. ⁽²⁾
Common Stock	08/28/2014		P		11,280	A	\$10.9802	453,638	I	By EcoR1 Capital Fund, L.P. ⁽¹⁾
Common Stock	08/28/2014		P		13,720	A	\$10.9802	551,793	I	By EcoR1 Capital Fund Qualified, L.P. ⁽²⁾
Common Stock								50,000	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		Date Exercisable	Expiration Date					

Explanation of Responses:

1. Shares owned directly by EcoR1 Capital Fund, L.P. ("Capital Fund"). Mr. Nodelman, solely by virtue of his position as the manager of EcoR1 Capital, LLC ("EcoR1"), the general partner of Capital Fund, may be deemed to beneficially own the shares owned directly by Capital Fund. Mr. Nodelman expressly disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein.
2. Shares owned directly by EcoR1 Capital Fund Qualified, L.P. ("Qualified Fund"). Mr. Nodelman, solely by virtue of his position as the manager of EcoR1, the general partner of Qualified Fund, may be deemed to beneficially own the shares owned directly by Qualified Fund. Mr. Nodelman expressly disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein.
3. The shares owned directly by each of Capital Fund and Qualified Fund have been adjusted from the previous Form 4 filed by Mr. Nodelman with respect to securities of the Issuer to give effect to transfers of shares between Capital Fund and Qualified Fund in connection with periodic rebalancing transactions, which occurred prior to the transactions reported herein.

/s/ Oleg Nodelman 08/29/2014

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.