

OMB APPROVAL	
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**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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

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>Weissman James B</u>  (Last) (First) (Middle) <u>C/O DICERNA PHARMACEUTICALS, INC.</u> <u>33 HAYDEN AVENUE</u>  (Street) <u>LEXINGTON MA 02421</u>  (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Dicerna Pharmaceuticals Inc [ DRNA ]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable)  Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>EVP &amp; Chief Operating Officer</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>08/03/2020</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	08/03/2020		M		4,101	A	\$2.97	25,961	D	
Common Stock	08/03/2020		M		259	A	\$3.42	26,220	D	
Common Stock	08/03/2020		S <sup>(1)(2)</sup>		2,928 <sup>(1)</sup>	D	\$22.312 <sup>(3)</sup>	23,292	D	
Common Stock	08/03/2020		S <sup>(1)(2)</sup>		1,432 <sup>(1)</sup>	D	\$22.7993 <sup>(4)</sup>	21,860	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	(A)	(D)	Date Exercisable	Expiration Date						Title
Employee Stock Option (Right to Buy)	\$2.97	08/03/2020		M		4,101		(5)	01/03/2027	Common Stock	4,101	\$0.00	21,879	D	
Employee Stock Option (Right to Buy)	\$3.42	08/03/2020		M		259		(6)	09/24/2023	Common Stock	259	\$0.00	17,440	D	

**Explanation of Responses:**

- The Reporting Person sold an aggregate of 4,360 shares of common stock on August 3, 2020 (the "Shares Sold") as reported in this Form 4. The Shares Sold represent 0.58% of 757,238 shares of common stock, which is the number of shares of common stock owned by the Reporting Person prior to the Shares Sold transaction reported in this Form 4, as well as shares issuable upon exercise or settlement of vested and unvested options and restricted stock units held by the Reporting Person as of the date of this report.
- The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the Reporting Person on November 25, 2019.
- The price reported in Column 4 is a weighted-average price. These shares were sold in multiple transactions at prices ranging from \$21.75 to \$22.74, inclusive. The Reporting Person undertakes to provide to Dicerna Pharmaceuticals, Inc., any security holder of Dicerna Pharmaceuticals, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in footnote (3) to this Form 4.
- The price reported in Column 4 is a weighted-average price. These shares were sold in multiple transactions at prices ranging from \$22.76 to \$22.86, inclusive. The Reporting Person undertakes to provide to Dicerna Pharmaceuticals, Inc., any security holder of Dicerna Pharmaceuticals, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in footnote (4) to this Form 4.
- The option vests in 48 monthly installments over the four-year period starting on the last day of January 2017, subject in each case to the Reporting Person's continued employment or service with the Issuer through the applicable vesting date.
- The vesting of this option was subject to achievement of pre-established performance goals. As of the transaction date, the options were fully vested.

**Remarks:**

/s/ Douglas W. Pagan, attorney-in-fact 08/05/2020

\*\* 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.