

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>Mehra Anand</u> (Last) (First) (Middle) SOFINNOVA VENTURES 3000 SAND HILL ROAD, 4-250 (Street) MENLO PARK CA 94025 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Spark Therapeutics, Inc. [ONCE]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input type="checkbox"/> Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) <u>07/24/2017</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	07/24/2017		s ⁽¹⁾		199,311	D	\$70.04 ⁽²⁾	493,817	I	See footnote ⁽³⁾
Common Stock	07/24/2017		s ⁽¹⁾		7,350	D	\$71.59 ⁽⁴⁾	486,467	I	See footnote ⁽³⁾
Common Stock	07/24/2017		s ⁽¹⁾		4,679	D	\$72.28 ⁽⁵⁾	481,788	I	See footnote ⁽³⁾
Common Stock	07/24/2017		s ⁽¹⁾		518	D	\$73.1 ⁽⁶⁾	481,270	I	See footnote ⁽³⁾

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:

- The sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by Sofinnova Venture Partners VIII, L.P. ("SVP VIII") on December 23, 2016.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$70.00 to \$70.90, inclusive. The reporting person undertakes to provide to Spark Therapeutics, Inc., any security holder of Spark Therapeutics, 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 this footnote (2) to this Form 4.
- The securities are owned directly by SVP VIII. Sofinnova Management VIII, L.L.C. ("SM VIII"), the general partner of SVP VIII, and Anand Mehra, a director of the Issuer, James I. Healy, and Michael Powell, the managing members of SM VIII, may be deemed to have shared voting and dispositive power over the shares owned by SVP VIII. Such persons and entities disclaim beneficial ownership over the shares owned by SVP VIII except to the extent of any pecuniary interest therein.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$71.00 to \$71.84, inclusive. The reporting person undertakes to provide to Spark Therapeutics, Inc., any security holder of Spark Therapeutics, 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 this footnote (4) 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 \$72.00 to \$72.93, inclusive. The reporting person undertakes to provide to Spark Therapeutics, Inc., any security holder of Spark Therapeutics, 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 this footnote (5) 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 \$73.03 to \$73.24, inclusive. The reporting person undertakes to provide to Spark Therapeutics, Inc., any security holder of Spark Therapeutics, 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 this footnote (6) to this Form 4.

/s/ Nathalie Auber, attorney-in-fact for Anand Mehra 07/26/2017

** 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.