

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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

OMB APPROVAL	
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1. Name and Address of Reporting Person* <u>MPM SunStates Fund, L.P.</u>	2. Date of Event Requiring Statement (Month/Day/Year) 02/13/2019	3. Issuer Name and Ticker or Trading Symbol <u>TCR2 THERAPEUTICS INC.</u> [ TCRR ]	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable)  Director <input checked="" type="checkbox"/> 10% Owner  Officer (give title below) _____ Other (specify below) _____	5. If Amendment, Date of Original Filed (Month/Day/Year)
			6. Individual or Joint/Group Filing (Check Applicable Line)  <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person
(Last) (First) (Middle) <u>C/O MPM CAPITAL</u> <u>450 KENDALL STREET</u>			
(Street) <u>CAMBRIDGE MA</u> <u>02142</u>			
(City) (State) (Zip)			

Table I - Non-Derivative Securities Beneficially Owned			
1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	195,902	I	See footnote <sup>(1)(2)</sup>

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)							
1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Series A Preferred Stock	(3)	(3)	Common Stock	2,825,396	0.00 <sup>(3)</sup>	I	See footnote <sup>(2)(4)</sup>
Series B Preferred Stock	(3)	(3)	Common Stock	322,901	0.00 <sup>(3)</sup>	I	See footnote <sup>(2)(5)</sup>
Common Stock Warrant (Right to Buy)	12/13/2016	12/12/2026	Common Stock	42,761	0.74	I	See footnote <sup>(2)(6)</sup>
Common Stock Warrant (Right to Buy)	12/06/2017	12/05/2027	Common Stock	135,508	0.74	I	See footnote <sup>(2)(6)</sup>

1. Name and Address of Reporting Person* <u>MPM SunStates Fund, L.P.</u>
(Last) (First) (Middle) <u>C/O MPM CAPITAL</u> <u>450 KENDALL STREET</u>
(Street) <u>CAMBRIDGE MA</u> <u>02142</u>
(City) (State) (Zip)
1. Name and Address of Reporting Person* <u>MPM Asset Management Investors SunStates Fund LLC</u>
(Last) (First) (Middle) <u>C/O MPM CAPITAL</u> <u>450 KENDALL STREET</u>
(Street) <u>CAMBRIDGE MA</u> <u>02142</u>
(City) (State) (Zip)
1. Name and Address of Reporting Person* <u>MPM SunStates Fund GP LLC</u>
(Last) (First) (Middle)

C/O MPM CAPITAL  
450 KENDALL STREET

(Street)  
CAMBRIDGEMA02142

(City)(State)(Zip)

1. Name and Address of Reporting Person\*  
MPM SunStates GP Managing Member LLC

(Last)(First)(Middle)  
MPM CAPITAL  
450 KENDALL STREET

(Street)  
CAMBRIDGEMA02142

(City)(State)(Zip)

Explanation of Responses:

1. The shares are held by MPM Asset Management LLC ("AM LLC"). Luke Evnin and Ansbert Gadicke are the members of AM LLC.
2. Each Reporting Person disclaims beneficial ownership of the securities except to the extent of his or its pecuniary interest therein.
3. Each share of Series A Preferred Stock and Series B Preferred Stock is convertible into shares of the Issuer's Common Stock on a 6.1938:1 basis. Upon the closing of the Issuer's initial public offering, all shares of Series A Preferred Stock and Series B Preferred Stock will convert into shares of Common Stock of the Issuer. The Series A Preferred Stock and Series B Preferred Stock have no expiration dates.
4. The shares are held as follows: 2,195,681 by MPM BioVentures 2014, L.P. ("BV 2014"), 146,447 by MPM BioVentures 2014(B), L.P. ("BV 2014(B)"), 79,644 by MPM Asset Management Investors BV2014 LLC ("AM BV2014"), 351,155 by MPM Sunstates Fund, L.P. ("MPM SunStates") and 52,469 by MPM Asset Management Investors Sunstates Fund LLC ("AM SunStates"). MPM BioVentures 2014 GP LLC and MPM BioVentures 2014 LLC ("BV LLC") are the direct and indirect general partners of BV 2014 and BV 2014(B). MPM SunStates Fund GP LLC and MPM SunStates GP Managing Member LLC ("SunStates GP") are the direct and indirect general partners of MPM SunStates. Luke Evnin, Ansbert Gadicke and Todd Foley are the members of BV LLC and Ansbert Gadicke is a member of SunStates GP.
5. The shares are held as follows: 256,163 by BV 2014, 17,085 by BV 2014(B), 9,291 by AM BV2014, 35,115 by MPM SunStates and 5,247 by AM SunStates.
6. The warrants are held by AM LLC.

Remarks:

See Form 3 for MPM BioVentures 2014, L.P for additional members of this joint filing.

/s/ Ansbert Gadicke, member  
of MPM Sunstates GP  
Managing Member LLC, the  
managing member of MPM  
SunStates Fund GP LLC, the  
general partner of MPM  
SunStates Fund, L.P.  
02/13/2019

/s/ Howard Rubin, director of  
MPM Asset Management  
Investors SunStates Fund LLC  
02/13/2019

/s/ Ansbert Gadicke, member  
of MPM SunStates GP  
Managing Member LLC, the  
managing member of MPM  
SunStates Fund GP LLC  
02/13/2019

/s/ Ansbert Gadicke, member  
of MPM SunStates GP  
Managing Member LLC  
02/13/2019

\*\* 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 5 (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.