

MERSANA THERAPEUTICS, INC.  
840 Memorial Drive  
Cambridge, MA 02139

July 12, 2018

**VIA EDGAR**

Securities and Exchange Commission  
Division of Corporation Finance  
Office of Healthcare and Insurance  
100 F. Street, N.E.  
Washington, D.C. 20549

Attention: Abigail Jacobs  
Erin Jaskot

Re: Mersana Therapeutics, Inc.  
Registration Statement on Form S-3 (File No. 333-226055)  
Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, Mersana Therapeutics, Inc. (the "Company") hereby requests that the Securities and Exchange Commission (the "Commission") accelerate the effective date of the Company's Registration Statement on Form S-3 (File No. 333-226055) (the "Registration Statement"), so that it will be declared effective at 4:00 p.m. Eastern Time on July 16, 2018, or as soon as possible thereafter. The Company hereby authorizes Marc Rubenstein, William Michener and James Dillon of Ropes & Gray LLP, counsel to the Company, to orally modify or withdraw this request for acceleration.

It would be appreciated if, as soon as the Registration Statement is declared effective, you would inform James Dillon of Ropes & Gray LLP, counsel to the Company, at (617) 951-7432.

Very truly yours,

MERSANA THERAPEUTICS, INC.

By: /s/ David A. Spellman  
David A. Spellman  
Chief Financial Officer

---