

June 23, 2017

VIA EDGAR

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

Attention: Mary Beth Breslin – Legal
Keira Nakada/ Sharon Blume – Accounting

Re: Mersana Therapeutics, Inc.
Registration Statement on Form S-1
Registration No. 333-218412

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, Mersana Therapeutics, Inc., a Delaware corporation (the “Company”), hereby requests that the effective date for the registration statement referred to above be accelerated so that it will be declared effective at 4:00 p.m. Eastern Time on June 27, 2017, or as soon as possible thereafter. The Company hereby authorizes Marc A. Rubenstein and William J. Michener of Ropes & Gray LLP, counsel to the Company, to orally modify or withdraw this request for acceleration.

Please call Marc A. Rubenstein of Ropes & Gray LLP, counsel to the Company, at (617) 951-7826 as soon as the registration statement has been declared effective.

Very truly yours,

MERSANA THERAPEUTICS, INC.

By: /s/ Anna Protopapas
Name: Anna Protopapas
Title: President and Chief Executive Officer
