Sema4 Holdings Corp. 333 Ludlow Street, North Tower, 8th Floor Stamford, Connecticut 06902

August 10, 2021

VIA EDGAR

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

Attn: Jessica Ansart

Re: Sema4 Holdings Corp. - Registration Statement on Form S-1 (File No. 333-258467)

Ladies and Gentlemen:

Sema4 Holdings Corp. (the "*Company*") hereby requests that the U.S. Securities and Exchange Commission (the "*Commission*") take appropriate action to make the above-referenced Registration Statement on Form S-1 (the "*Registration Statement*") effective at 4:00 p.m., Eastern Time, on Thursday, August 12, 2021, or as soon thereafter as practicable.

The Company hereby authorizes Ethan Skerry and Per B. Chilstrom of Fenwick & West LLP, counsel to the Company, to orally modify or withdraw this request for acceleration.

Once the Registration Statement has been declared effective, please orally confirm that event with Ethan Skerry of Fenwick & West LLP, counsel to the Company, at (212) 430-2670, or in his absence, Per B. Chilstrom at (212) 430-2669.

Very truly yours,

Sema4 Holdings Corp.

By: /s/ Eric Schadt

Eric Schadt Chief Executive Officer

cc: Ethan Skerry, Fenwick & West LLP
Per B. Chilstrom, Fenwick & West LLP