

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

Mail Stop 4561

August 2, 2016

Rouven Bergmann Chief Financial Officer Medidata Solutions, Inc. 350 Hudson Street, 9th Floor New York, NY 10014

Re: Medidata Solutions, Inc.

Form 10-K for the year ended December 31, 2015

Filed February 29, 2016 File No. 001-34387

Dear Mr. Bergmann:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or the filing and the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Kathleen Collins

Kathleen Collins Accounting Branch Chief Office of Information Technologies and Services