



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

DIVISION OF  
CORPORATION FINANCE

March 18, 2015

Via E-mail

Robert M. McMahon  
Chief Financial Officer  
Hologic, Inc.  
35 Crosby Drive  
Bedford, MA 01730

**Re: Hologic, Inc.  
Form 10-K for the Fiscal Year Ended September 27, 2014  
Filed November 20, 2014  
File No. 1-36214**

Dear Mr. McMahon:

We refer you to our comment letter dated February 26, 2015 regarding potential business contacts with Syria, Sudan and Cuba. We have completed our review of this subject matter. 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/ Cecilia Blye

Cecilia Blye, Chief  
Office of Global Security Risk

cc: Amanda Ravitz  
Assistant Director  
Division of Corporation Finance