



DIVISION OF  
CORPORATION FINANCE

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

August 16, 2011

Via E-Mail

Mr. David P. Southwell  
Chief Financial Officer and Executive Vice President  
Human Genome Sciences, Inc.  
14200 Shady Grove Road  
Rockville, Maryland 20850-7464

**Re: Human Genome Sciences, Inc.  
Form 10-K for the Year Ended December 31, 2010  
Filed on February 24, 2011  
Form 10-Q for the Quarterly Period Ended March 31, 2011  
Filed on April 29, 2011  
Definitive Proxy Statement on Schedule 14A  
Filed on March 30, 2011  
File No. 001-14169**

Dear Mr. Southwell:

We have completed our review of your filings. 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 filings 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 filings to be certain that the filings include the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Gus Rodriguez

Gus Rodriguez  
Accounting Branch Chief