



DIVISION OF
CORPORATION FINANCE

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

March 19, 2012

Via E-Mail

Frederick W. Kanner, Esq.
Dewey & LeBoeuf LLP
1301 Avenue of the Americas
New York, NY 10019

**Re: Illumina, Inc.
Response Letter dated March 19, 2012
Definitive Proxy Statement on Schedule 14A
Filed on March 19, 2012
File No. 1-35406**

Dear Mr. Kanner:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Schedule 14A

1. We note your response to comment one in our letter dated March 8, 2012. Further, we note that telephonically you indicated that Illumina will not use withheld votes to vote for Illumina's nominees in Proposal 1. Please supplementally confirm to us that if Proposal 4 is approved and Proposal 5 is not approved and if a stockholder instructs the proxy holder to withhold a vote with respect to any of Roche's director nominees on Proposal 6, the proxy holder will not vote for those Illumina director nominees named in Proposal 1 for whom the stockholder did not instruct the proxy holder to withhold in Proposal 1, to the extent such nominees were not elected pursuant to Proposal 1.

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Please direct any questions to me at (202) 551-3411. You may also contact me via facsimile at (202) 772-9203. Please send all correspondence to us at the following ZIP code: 20549-3628.

Sincerely,

/s/ Peggy Kim

Peggy Kim
Special Counsel
Office of Mergers & Acquisitions