



DIVISION OF
CORPORATION FINANCE

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

February 27, 2012

Via E-Mail

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

**Re: Illumina, Inc.
Preliminary Proxy Statement on Schedule 14A
Filed on February 17, 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

General

1. Regarding proposal 3, please revise throughout the proxy statement to clarify that shareholders are being asked to approve an advisory vote on the compensation of the named executives.

How is a quorum obtained, and why is a quorum required, page 7

2. Please revise to clarify the effect of abstentions on the quorum requirement. Refer to Item 21(b) of Schedule 14A.

Roche's Offer and Proxy Solicitation, page 11

3. We note that you refer to the Schedule 14D-9 for a discussion of the background of the tender offer. Please revise to include a background discussion of the contacts between the participants and the issuer during the time leading up to the current proxy solicitation. Please also describe how the Board or management responded to contacts made by the participants and the material details of any discussions or correspondence.

Proposal 1—Election of Directors, page 13

Additional Information, page 13

4. We note that you reserve the right to vote for unidentified substitute nominees. Please confirm for us that should you identify or nominate substitute nominees before the meeting, you will file an amended proxy statement that (1) identifies the substitute nominees, (2) discloses whether such nominees have consented to being named in the revised proxy statement and to serve if elected and (3) includes the disclosure required by Items 5(b) and 7 of Schedule 14A with respect to such nominees.

Proposals 4, 5, and 6: Roche's Board of Directors Expansion Proposals, page 17

5. We note that Illumina has not nominated any persons to fill the two additional directorships in the event that Proposals 4 and 5 are approved. Please revise the proxy statement and proxy card to disclose that shareholders will be disenfranchised with respect to Roche's proposal to fill the two newly created directorships.
6. Please revise to describe what actions Illumina will take if Proposal 4 to increase the number of directors is approved and Proposal 5 to require that newly created directorships be filled only by a stockholder vote is approved, but Proposal 6 to fill the two new directorships, which will require a majority vote, is not approved.
7. Please revise to further describe how "Roche's tactics seek to disadvantage Illumina's stockholders." In addition, we note that you state that "Roche's offer values Illumina at a price below recent trading levels;" please revise to further quantify or describe how the offer price is below recent trading levels.

Cost of the Solicitation, page 54

8. Please disclose the total expenditures to date since you already know that information.
9. We note that proxies may be solicited by mail, personally, by telephone, by facsimile, by e-mail or by other means. Please be advised that all written soliciting materials, including any scripts to be used in soliciting proxies over the telephone or any e-mail correspondence and any information posted on the Internet must be filed under the cover

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of Schedule 14A. Refer to Rule 14a-6(b) and (c). Please confirm your understanding in your response letter.

Form of Proxy Card

10. Please revise the proxy card to disclose that it is a preliminary copy. Refer to Rule 14a-6(e)(1).

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