



DIVISION OF
CORPORATION FINANCE

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

July 24, 2014

Via E-Mail

Michael A. Gordon, Esq.
Sidley Austin LLP
One South Dearborn Street
Chicago, Illinois 60603

**RE: BIOLASE, Inc.
Preliminary Proxy Statement
Filed July 18, 2014
File No. 001-36385**

Dear Mr. Gordon:

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.

General

1. Please revise to clearly mark the proxy statement and proxy card as preliminary. See Exchange Act Rule 14a-6(e)(1).
2. We note that one of the purposes of the meeting is the “transaction of such other business as may properly come before the meeting, or any adjournment or postponement thereof.” We also note the disclosure in the form of proxy that the proxy holders have discretionary authority to vote upon such other business as may properly come before the annual meeting. If the adjournment of the meeting is intended as a means for soliciting additional proxies, the adjournment would constitute a separate substantive proposal for which proxies must be independently solicited and for which discretionary authority is unavailable. See Rule 14a-4 of the Exchange Act. Please note that pursuant to Rule 14a-4(c)(7), a proxy may confer discretionary authority to vote on matters incident to the conduct of the meeting. To the extent applicable, please revise the disclosure and the proxy card. The proxy card should include an additional box so that the shareholders

may decide whether or not to vote in favor of adjournment for the solicitation of additional proxies, if this is an action that is being contemplated.

3. Please update your disclosure throughout to reflect the terms of the common stock issuance described in your Form 8-K filed July 22, 2014.

Cover Letter

4. Please revise this letter to highlight, as you do in the form of proxy card, the consequences to security holders of mistakenly attempting to vote for six nominees instead of five.

What proposals will be voted on at our annual meeting?, page 1

5. Please reconcile the disclosure here regarding “four proposals” with the number of proposals listed throughout the proxy statement.

How does our Board recommend that stockholders vote on the proposals?, page 2

6. Please revise to clarify why you do not recommend that stockholders vote for Mr. Pignatelli.

How will my shares be voted if I return a blank WHITE proxy card . . .?, page 3

7. Please refer to the second list of bullet points under this caption and your disclosure regarding the effect of broker non-votes. It is our understanding that, in a contested election, a broker does not have discretionary authority to vote on any proposals to be voted on at the meeting, whether routine or not. Please provide support for your current disclosure regarding the effect of broker non-votes, or revise your disclosure as necessary.

Recent Developments, page 7

8. Please expand your disclosure to summarize the events underlying and leading up to the litigation and decision mentioned in the first paragraph, including how the composition of your board changed. Also revise your disclosure here and throughout to clarify how many of your directors will have been nominated by Oracle, if all nominees recommended by you are elected. Finally, describe the events leading up to the board’s decision to include Oracle’s nominee on the company’s proxy card and whether any agreement was reached with Oracle for this purpose, including any consideration received (or to be received) by the company or by Oracle.

Election of Directors, page 8

9. Please disclose whether all nominees have consented to being named in the proxy statement and to serve if elected. Refer to Exchange Act Rule 14a-4(d). We note, in this regard, the reference on page A-3 to Dr. Lord's consent to be named by Oracle in the proxy statement and to serve if elected. Also, your disclosure here does not appear to include Mr. Pignatelli's consent to being named or to serve if elected. Finally, your disclosure here does not include the consent of the Board Nominees to being named in the proxy statement.
10. Please tell us, with a view toward revised disclosure, whether there would be any effects (and their amount) from the election of the Mr. Pignatelli's nominees on the company. Address, for example, whether any change of control payments would be due or any company obligations (through debt or otherwise) would become due or accelerated.

Proxy Solicitation Costs, page 47

11. We note that your officers, directors, employees and agents may solicit proxies by mail, in person and telephone. Please be advised that all written soliciting materials, including any scripts to be used in soliciting proxies must be filed under the cover of Schedule 14A on the date of first use. Please confirm your understanding.

Appendix A

12. Please provide the disclosure required by Item 5(b)(1)(ix) of Schedule 14A. Please also state whether or not, during the past ten years, the participant has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) and, if so, give dates, nature of conviction, name and location of court, and penalty imposed or other disposition of the case. See Item 5(b)(1)(iii) of Schedule 14A.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company is in possession of all facts relating to the disclosure, it is responsible for the accuracy and adequacy of the disclosures it has made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and

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- 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.

Please direct any questions to Daniel F. Duchovny, Special Counsel, at (202) 551-3619 or me at (202) 551-3641.

Sincerely,

/s/ Geoff Kruczek

Geoff Kruczek
Attorney-Advisor
Office of Mergers & Acquisitions

cc: Michael C. Carroll, Esq.
Beth Flaming, Esq.