



DIVISION OF
CORPORATION FINANCE

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

August 3, 2011

Via Email

F. Raymond Salemme, Ph.D.
Chief Executive Officer
Redpoint Bio Corporation
7 Graphics Drive
Ewing, New Jersey 08628

**Re: Redpoint Bio Corporation
Form 10-K for the Fiscal Year Ended December 31, 2010
Filed March 4, 2011
File No. 000-51708**

Dear Dr. Salemme:

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 within ten business days 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 please tell us why in your response.

After reviewing the information you provide in response to these comments we may have additional comments.

Form 10-K for the fiscal year ended December 31, 2010

Item 1. Business, page 1

Sweetness Enhancer Program, page 3

1. We note the discussion of your license and collaboration agreement with International Flavors and Fragrances, Inc. for the commercialization of the company's RP44 technology on page 3. Please provide proposed disclosure to be included in your next Form 10-K which includes a summary of the term and termination provisions of the agreement, as well as a range within ten percent of the royalties to be paid to the company.

Intellectual Property, page 11

2. Please provide proposed disclosure to be included in your next Form 10-K which

includes a more robust discussion of your material patents, including the expiration dates for each and the jurisdictions in which they were granted. See Item 101(c)(1)(iv) of Regulation S-K for guidance.

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 Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have 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
- 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 contact Laura Crotty at (202) 551-3563 or myself at (202) 551-3715 with any questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey P. Riedler
Assistant Director

cc: Scott A. Cowan (DLA Piper)