



DIVISION OF
CORPORATION FINANCE

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

October 16, 2012

Via E-Mail

Steven C. Quay, M.D., Ph.D.
Chairman, Chief Executive Officer and President
Atossa Genetics Inc.
4105 E. Madison Street, Suite 320
Seattle, Washington 98112

**Re: Atossa Genetics Inc.
Amendment no. 9 to Registration Statement on Form S-1
Filed October 4, 2012
File No. 333-179500**

Dear Dr. Quay:

We have reviewed your registration statement 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 registration statement and providing the requested information. 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 registration statement and the information you provide in response to these comments, we may have additional comments.

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1. We note your added disclosure regarding the acquisition of Acueity Healthcare, Inc. on September 30, 2012. Please revise your Summary and Business sections to provide additional detailed disclosure explaining if, and how, this acquisition complements and/or alters your current business, including your allocation of resources, intellectual property portfolio, business strategy, expected timetables for your existing product lines and the additional steps necessary to commercialize your newly acquired assets. Please also revise your risk factor disclosure to describe any material risks related to the acquisition. In addition, revise your Use of Proceeds disclosure, as necessary, to reflect any changes to your anticipated uses as a result of the acquisition.
2. Please tell us how you evaluated the guidance in FASB ASC 805-10-55-4 through 8 in determining that Acueity is not a business. Under this guidance, determining whether a

particular set of assets and activities is a business should be based on whether the integrated set is capable of being conducted and managed as a business by a market participant. Thus, in evaluating whether a particular set is a business, it is not relevant whether a seller operated the set as a business or whether the acquirer intends to operate the set as a business.

3. We reference the statements on page 5 of your response letter dated October 3, 2012 of each system or medical device that you acquired. Please explain how you determined that these systems or devices do not represent inputs and/or processes as defined in FASB ASC 805-10-55-4.
4. We reference the statement in your response letter dated October 3, 2012 that you are performing analysis to determine the value of the assets acquired and any residual goodwill following the asset purchase. In making your conclusion that Acueity is not a business, please tell us how you considered FASB ASC 805-10-55-9 which states that in the absence of evidence to the contrary, a particular set of assets and activities in which goodwill is present shall be presumed to be a business.
5. Please revise your filing to disclose how you valued the stock and warrants issued to acquire the assets of Acueity. Refer to FASB ASC 805-30-30-7 and 8.
6. We note that you completed your third fiscal quarter on September 30, 2012. To the extent that you have engaged in additional communication with NASDAQ regarding your ability to satisfy the initial listing standards of the NASDAQ Capital Market, please revise to update your disclosure.

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

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- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Kristin Lochhead at (202) 551-3664 or Brian Cascio, Accounting Branch Chief, at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Allicia Lam at (202) 551-3316 or Daniel Morris, Special Counsel, at (202) 551-3314 with any other questions.

Sincerely,

/s/ Daniel Morris for

Amanda Ravitz
Assistant Director

cc (by e-mail): Ryan Murr
Ropes & Gray LLP