



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

July 6, 2009

Mail Stop 4631

Via U.S. mail

William Doyle
Chief Executive Officer
Vystar Corporation
3235 Satellite Boulevard
Building 400, Suite 290
Duluth, GA 30096

Re: **Vystar Corporation**
Registration Statement on Form S-1 Amendment No.3
Filed on: June 29, 2009
File No.: 333-155341

Dear Mr. Doyle:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Selling Shareholders, page 9

1. We note your revised disclosure in response to comment 5 of our prior letter dated June 18, 2009. With respect to the shares being offered by the other selling shareholders, please revise your disclosure to identify the number of shares (as well as the price per share) sold during each private placement during the 2003-2008 period. Also, please confirm that the shares being offered by the other selling shareholders were not sold pursuant to a written agreement. Otherwise, please file the agreement(s) as an exhibit to the registration statement pursuant to Item 601(b)(4) or (b)(10) of Regulation S-K, as applicable.

Exhibit 5.1 - Legal Opinion of Greenberg Traurig LLP, page II-5

2. We note the revised opinion in response to comment 8 of our letter dated June 18, 2009. The revised language, however, still appears to limit an investor's ability to rely on the legal opinion. Please have counsel revise the opinion to remove such

limitations.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. 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 disclosure they have made.

Notwithstanding our comments, in the even the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, 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
- 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

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. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration

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of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Era Anagnosti, Staff Attorney, at (202) 551-3369 or me at (202) 551-3760 with any questions.

Sincerely,

Pamela A. Long
Assistant Director

cc: Gerald L. Baxter, Esq. (via facsimile @ (678) 553-2431)
Greenberg Traurig, LLP
3290 Northside Parkway, Suite 400
Atlanta, GA 30327