



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

Mail Stop 3030

March 15, 2010

VIA U.S. MAIL and FACSIMILE (651) 687-0485

Mr. Mark N. Schwartz
Chief Executive Officer
Hypertension Diagnostics, Inc.
2915 Waters Road
Suite 108
Eagen, Minnesota 55121

RE: **Hypertension Diagnostics, Inc.**
Form 10-K for the fiscal year ended June 30, 2009
Filed September 18, 2009
File No. 000-24635

Dear Mr. Schwartz:

We have reviewed your filing and have the following comments. We have limited our review to only financial statements and related disclosures and do not intend to expand our review to other portions of your document. Where indicated, we think you should revise your document in response to these comments and comply with the remaining comments in all future filings. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. 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.

Form 10-K for the year ended June 30, 2009

Item 9A(T). Controls and Procedures, page 47

1. We note your disclosure that management has concluded that your disclosure controls and procedures were operating effectively "for gathering, analyzing and disclosing the information that [you] are required to disclose in the reports [you] file under the Securities Exchange Act of 1934, within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to [your] management in a manner that allows for timely decisions regarding required disclosures." In future filings please simply state whether your disclosure controls and procedures are effective or not effective. Further, the language that is currently included after the words "operating effectively" in your disclosure appears to be superfluous, since the meaning of "disclosure controls and procedures" is established by Rule 13a-15(e) of the Exchange Act. However, if you do not wish to eliminate this language, please revise so that the language that appears after the word "effective" is substantially similar in all material respects to the language that appears in the entire two-sentence definition of "disclosure controls and procedures" set forth in Rule 13a-15(e). Please revise future filings to address our concerns.

Forms 10-Q for the period ended December 31, 2009

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 10

Results of Operations, page, 11

Six Months Ended December 31, 2009 Compared to Six Months Ended December 31, 2008, page 13

2. We noted that your equipment sales increased significantly in the six months ended December 31, 2009, by approximately \$481,000, and we see that you explain that approximately \$205,000 of this increase is related to a NIH funded study, however, we do not see any explanation for the remaining \$276,000 increase. When individual line items, disclosed in your statements of operations, significantly fluctuate in comparison to the comparable prior period, please quantify, and disclose the nature of each item that caused the significant change. For example, please quantify each material factor (i.e. such as price changes and / or volume changes by type of product), disclose separately the effect on operations attributable to each factor causing the aggregate change from year to

- year, and disclose the nature of or reason for each factor causing the aggregate change. The analysis should reveal underlying material causes of the factors described and any future impact on operating results. As part of your response, please provide us with your proposed disclosure to include in future filings that addresses our concerns. See Item 303 of Regulation S-K and FR-72 for guidance.
3. We noted your disclosure that selling, marketing, and promotion expense increased from \$0 to \$142,740 due to a change to indirect distribution for the six month period ended December 31, 2009. Please explain the nature of the changes with your distributors in 2009 and the impact, if any, this change had regarding your revenue recognition for sales to distributors.

Certifications

4. We note that page 48 of your Form 10-K for the year ended June 30, 2009 contained management's report on internal control over financial reporting as required by Item 308T of Regulation S-X. As such, your certifications are required to include the introductory language in paragraph 4 of the certification that refers to the certifying officers' responsibility for establishing and maintaining internal control over financial reporting for the company and to also include paragraph 4(b) which refers to the design of your internal control over financial reporting. Refer to Item 601(b)(31) of Regulation S-X. Please file an amendment to Forms 10-Q for the periods ended September 30, 2009 and December 31, 2009 that include new, corrected, and currently dated certifications. You may provide an abbreviated amendment that consists of a cover page, explanatory note, signature page, and paragraphs 1, 2, 4, and 5 of the certification.
5. In addition, we noted that that you replaced the word "registrant" with "small business issuer" in your certifications that you filed with your Forms 10-Q for the period ended September 30, 2009 and December 31, 2009. When you amend your filings, please also revise the certifications to present them in the exact form as set forth in Item 601(b)(31) of Regulation S-K without any modifications. Please also apply this comment to future filings.

As appropriate, please amend your Forms 10-Q and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendments to expedite our review. Please furnish a cover letter with your response that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please submit your cover letter on EDGAR. Please understand that we may have additional comments after reviewing your responses to our comments.

Mr. Mark N. Schwartz
Hypertension Diagnostics, Inc.
March 15, 2010
Page 4

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 Exchange Act of 1934 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 disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- 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.

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 our review of your filing or in response to our comments on your filing.

You may contact Julie Sherman at (202) 551-3640 or me at (202) 551-3212 with any questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671.

Sincerely,

Jeff Jaramillo
Accounting Branch Chief