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

DIVISION OF
CORPORATION FINANCE

September 24, 2018

David Fong
Chief Financial Officer
Imaging Diagnostic Systems, Inc.
1291-B NW 65th Place
Fort Lauderdale, FL 33309

Re: Imaging Diagnostic Systems, Inc.
Registration Statement on Form 10
Filed August 28, 2018
File No. 000-26028

Dear Mr. Fong:

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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response and any amendment you may file in response to these comments, we may have additional comments.

Form 10 Filed August 28, 2018

General Information, page 1

1. We note your disclosure regarding your failure to timely file reports required by the Exchange Act. Please advise whether you remained subject to the reporting requirements of Exchange Act Section 15(d), and tell us when you intend to file the required reports. Also, if your history regarding filing periodic reports presents a material risk that you will not timely file required reports, please add appropriate risk factor disclosure.

2. Please revise to disclose any currently planned financing arrangements with your majority shareholder.

Historical Overview, page 2

3. Please provide the basis for your belief that you are a few months away from obtaining CFDA approval in China.

4. Please identify the international markets where you have obtained regulatory approval.

Breast Cancer, page 2

5. Please tell us the basis for your belief on page 4 that you will achieve significant market penetration in China given you have not yet received regulatory approval for your product in China.

CTLM, page 7

6. We note your disclosure on page 8 regarding your Physician Console and Physician Workstation. Please revise to discuss the method by which you offer the Physician Workstation and whether its operation requires the customer to also use your CTLM product. If you have made sales of your software product, ensure your registration statement addresses the impact of those sales on your results of operations. Also, revise to discuss any regulatory clearances or approvals you must obtain before marketing your Physician Workstation.

Government Regulation and Approvals, page 10

7. Please revise your discussion of your PMA application to address: (1) what the FDA's PMA process entails as it relates to approving your product for U.S. marketing, (2) what types of trials or data you will have to provide the FDA, including endpoints of your trials, and (3) what indication you intend to seek from the FDA. In an appropriate section of your document, ensure you discuss the estimated costs and milestones related to the intended regulatory approvals you disclose.

Historical Clinical Collaboration Sites, page 13

8. Given your disclosure that almost all of the disclosed programs were suspended, please tell us why disclosure regarding those past collaborations is included in the registration statement. It is unclear why it is appropriate to list previous relationships and programs if they are inapplicable to your current work on a new version of your product, as disclosed on page 9. If you choose to include this disclosure, please revise to clearly explain each party's role in the disclosed programs and the programs' importance to your current business operations.

Domestic Sales and Marketing, page 13

9. We note your disclosure on page 14 that data from your clinical trials will impact the market size for your product. Please revise to clarify the meaning of this statement and whether the data from your current trials will be used to further your PMA application.

International Sales and Foreign Regulation, page 14

10. We note your disclosure on page 15 that you expect your manufacturer's application for marketing clearance in China will be approved before the end of 2018. Please tell us your basis for this statement and whether any additional clearances or approvals are required before sales in China may commence. Ensure your disclosure discusses material hurdles that remain before you begin generating revenue from sales in that jurisdiction.

Competition, page 16

11. Please tell us whether there is more recent information concerning your competitive landscape that should be disclosed in this section. For example, tell us whether (1) your approach of using "continuous wave laser optical technology" is unique, (2) the entities mentioned at the top of page 17 have developed competitive devices and (3) the entity mentioned in the last paragraph of this section has developed a device that will compete with your product.

Patents, page 17

12. Please revise to describe the potential impact to your business relating to your patent policy shift towards trade secrets and confidential procedures. Add risk factor disclosure as appropriate.

Intellectual Property, page 17

13. Please clarify your disclosure in the first paragraph on page 18. In this regard, it is unclear whether you believe you will require additional patents to adequately protect your technology in the geographies you intend to sell your product. Add risk factor disclosure as appropriate.

14. Reconcile your disclosure in the table on page 17 suggesting you own 6 U.S. patents with your disclosure on page 21 that you own 3 U.S. patents. If you do not own some of these patents, please clarify your interest in them.

Sales and Cost of Sales, page 30

15. Please revise to more fully discuss the royalty agreement mentioned here, and clarify whether this is the agreement discussed on page 10. In an appropriate section of your document, you should disclose (1) the parties to this agreement, (2) the rights and obligations of the parties, (3) the scope of the agreement, including geographic and

technological, and (4) the history of this agreement, including explaining how the agreement entered into in 2006 did not provide income until 2018 after it was "re-established." Also please file this agreement as an exhibit or advise.

Related Transactions, page 35

16. Please revise to disclose all information required by Regulation S-K Item 404. For example, we note that the disclosure here does not address transactions disclosed on pages F-12 and F-14, which appear to involve parties disclosed in this section.

Preferred Stock, page 39

17. Please revise to clarify the rights and preferences of your outstanding Series L stock, including any provisions impacting voting or liquidation rights. Also, revise to discuss how you are satisfying the annual dividend on this stock.

Financial Statements
Note 17. Subsequent Events, page F-22

18. Please revise the financial statements to retrospectively apply the reverse stock split affected in July 2018. Refer to SAB Topic 4-C.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact Jeanne Bennett at 202-551-3606 or Gary Todd, Senior Accountant, at 202-551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Caleb French at 202-551-6947 or Heather Percival, Senior Attorney, at 202-551-3498 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Electronics and Machinery

cc: Robert B. Macaulay, Esq.