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

DIVISION OF
CORPORATION FINANCE

December 14, 2020

Christopher Ianelli
Chief Executive Officer
iSpecimen Inc.
450 Bedford Street
Lexington, MA 02420

**Re: iSpecimen Inc.**
**Registration Statement on Form S-1**
**Filed November 19, 2020**
**File No. 333-250198**

Dear Mr. Ianelli:

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.

Registration Statement on Form S-1 filed November 19, 2020

Prospectus Summary
The Opportunity, page 2

1. Please briefly define "precision medicine market" and "regenerative medicine market."

Our Competitive Advantages, page 5

2. We note your disclosure that "[w]hile [you] believe [y]our iSpecimen Marketplace is driving these benefits now, they will become even more apparent in the future when the iSpecimen Marketplace achieves scale." In an appropriate place in your filing, please clarify when you expect to achieve scale, and the steps you must take to do so. In addition, to balance your disclosure, please disclose here that to date you have been unable to operate the marketplace profitably. In doing so, please include net loss information for

recent periods.

COVID-19 Impact, page 7

3. Here and on page 46 of your filing, please quantify the impact of the slowdown in healthcare provider research on your purchase orders, and on your total revenue. Please also quantify the extent to which you have recovered from the slowdown. In this regard, we note your disclosure on page 46 that "[a]s of September 30, 2020, most of our supply organizations had resumed research operations but generally in a more limited capacity than before the pandemic began." In addition, please disclose that in May 2020 you applied for and received a loan for $783,008 from the Paycheck Protection Program under the CARES Act.

Risk Factors

Risks related to our Business

"We have a relatively short operating history . . .", page 12

4. Please briefly describe the "number of factors" that affect your ability to accurately forecast your future results.

"Sustainable future revenue growth is dependent upon . . .", page 15

5. Please quantify the "relatively significant amount of resources" you are spending on the development of the iSpecimen Marketplace platform, or tell us why you believe you are not required to do so.

"We rely upon our technology solution for the operation of our business . . .", page 15

6. Please quantify, if material, the "stall" in your revenue growth rate in mid-2018 to mid-2019, related to your critical software update.

"We rely upon third-party technology licenses . . .", page 16

7. You disclose that you rely on third parties for "certain technology." Please briefly describe the types of technology you license from third parties, describe the material terms of your licensing agreements with third parties, and file any relevant licensing agreements as exhibits to your filing. See Item 601(b)(10) of Regulation S-K. Alternatively, please tell us why you do not believe you are required to file any applicable agreements as exhibits to your registration statement.

"Challenges or unanticipated costs in establishing . . .", page 18

8. Please clarify when you expect to begin seeking distributors in the life sciences industry to market and sell your products and services outside of the United States.

"We do not control the end-to-end quality of specimens . . .", page 21

9. Please quantify the cost of the refunds and replacements referenced in this risk factor related to the specimens that did not meet specifications in 2019, if material.

Use of Proceeds, page 37

10. We note your disclosure that you will use a portion of the proceeds to repay accrued and unpaid interest of the Bridge Notes. Because you will use a portion of the proceeds to repay debt, please disclose the interest rate and maturity of such indebtedness in this section. Please also amend your "Use of Proceeds" disclosure in your Prospectus Summary to disclose that you will use a portion of the proceeds to repay this debt. Further, because a portion of these Bridge Notes appears to have been issued within one year, please describe the use of the proceeds of such indebtedness other than short-term borrowings used for working capital. See Instruction 4 to Item 504 of Regulation S-K.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Financial Operations Overview and Analysis for the Three and Nine Months Ended September 30, 2020 and 2019 . . ., page 48

11. Throughout your discussion of your results of operations for the financial periods presented, where you discuss multiple factors underlying changes in line items, please quantify the contribution of each factor. For example, you disclose that "[f]or the three months ended September 30, 2020, revenue increased by approximately $1,557,000 or 225%, as compared with the three months ended September 30, 2019 primarily due to an expansion of our sales team in the second half of 2019 and new demand for specimens from patients with known COVID-19 test results, especially remnant specimens." Please make conforming changes throughout your results of operations disclosure.

Business, page 61

12. In an appropriate place in your filing, please clarify whether you require fees for use of your platform, including the marketing, sales, contracting, and compliance functions you perform for researchers and suppliers.

The Challenges, page 62

13. We note your reference to a survey of certain researchers you conducted in 2019. Please provide us with context and additional detail about the parameters of this survey, including a discussion of the number of researchers you surveyed, the number that responded, the types of questions that were asked, and how your survey results support your statement that "more than 80% of researchers limit the scope of their research because of the difficulty of finding adequate quantity and/or quality of specimens for their research."

Technology Development, page 67

14. Please amend your disclosure to describe your plans for technology development in the near future, including when you expect to implement such plans. In this regard, we note your disclosure on page 19 that "[c]urrently, [your platform] does not fully support self-service eCommerce because key capabilities required to satisfy these transactions across all of [y]our product lines, such as a pricing engine and patient-level search, have yet to be incorporated." Please clarify when you expect the pricing engine, patient-level search, and other key capabilities to be incorporated into your platform.

Our Products and Services, page 68

15. Where you describe the product types you use to track and manage your business, please describe how the demand for and supply of each impacts your business and operations. In this regard, we note your disclosure on page 50 that "remnant specimens generally have lower procurement costs than research use only specimens." Please discuss relevant differences in costs to acquire and distribute each product type, ease of procuring inventory of each, and any other differences that materially or could materially affect your operations.

Our Supply Partners, page 69

16. Please disclose the names of the principal suppliers discussed in this section, or tell us why you believe you are not required to do so. See Item 101(h)(4)(v) of Regulation S-K.

Our Customers, page 70

17. We note your disclosure that, "in 2019, [you] entered the new and rapidly growing regenerative medicine segment." To provide context for investors regarding this segment and your participation in this segment, please disclose the measure by which you determined this segment is "rapidly growing," and clarify how you have entered into this segment, including the products you provide, the number of distribution customers, and/or the percentage of your revenue attributable to this segment in the relevant periods presented.

18. You disclose that "in 2019, [you] significantly expanded [y]our client base outside the Americas in large part due to one large international project." Please disclose whether you expect to continue to engage with a client base outside of the Americas upon the termination of this large international project, and if you expect future projects to have the same "significance."

Our Competitors, page 72

19. You disclose that "[you] know of no other online human biospecimen marketplaces that provide instant access and searchability of specimens across a network of healthcare providers." We note there appear to be other searchable online marketplaces, including

but not limited to Discovery Life Sciences, Science Exchange, and StemExpress. Please tell us why you believe these or other online providers are not online human biospecimen marketplaces that operate in a manner similar to your business. Alternatively, please amend your disclosure to identify other online biospecimen marketplaces as your competitors, if applicable.

Our Sales Pipeline, page 73

20. You state that the purchase order stage begins with the receipt of the purchase order (or equivalent document) and ends as the specimen request is fulfilled or lost. Please explain what you mean by the term lost. In your sales pipeline stage tables, the amount of purchase orders generally exceeds revenue by significant amounts. Please explain the reasons these figures differ. To the extent they differ due to purchase orders not being firm and subsequently being cancelled or otherwise not fulfilled by you, please revise your disclosure to explain the extent to which your purchase orders are not firm.

Regulations
21 CFR Part 11 Electronic Records; Electronic Signatures, page 79

21. Considering your disclosures that "the iSpecimen Marketplace has not been certified or audited for 21 CFR Part 11 compliance," and you " do not require the originating systems from whom [you] receive data to be 21 CFR Part 11 compliant," please disclose the potential consequences to you when clients may submit data to the FDA that was received, stored, and transmitted in your systems, if material. As a related matter, please disclose the potential consequences to you if you fail to properly audit and identify gaps in the informed consent forms used to collect samples and data as part of your offerings pursuant to 21 CFR Part 50, and if there are gaps in your IRB composition and operations making them incompatible with 21 CFR Part 56.

International Regulatory Environment, page 80

22. We note your disclosure that you "generally rely upon [y]our contractual terms with [EU supply partners] as a means for obligating them to provide [you] data in accordance with the GDPR regulations." Please briefly describe any other audits or practices upon which you rely to ensure your operations comply with GDPR regulations.

Other Applicable Laws, page 80

23. You disclose that you are subject to state and local laws and regulations for the disposal and handling of medical waste and biohazardous material. If material, pease disclose the costs of compliance with these disposal laws, and discuss whether any of these laws have environmental implications. See Item 101(h)(4)(xi) of Regulation S-K.

Anti-Takeover Effects of Certain Provisions of Our Bylaws, page 102

24. Please amend your filing to add risk factor disclosure describing the risks related to the

anti-takeover effects described in this section of your registration statement.

Registration Rights, page 102

25. We note your disclosure that certain shares are "registered for resale as part of the registration statement of which this prospectus forms a part." However, it does not appear that you are registering a resale component of this offering. Please amend your disclosure to clarify, if true, that these registration rights are related to a future registration statement, or amend your filing to register the resale shares and to provide the disclosure required by Item 507 of Regulation S-K.

Condensed Balance Sheets, page F-27

26. We note you recorded deferred revenue of approximately $582,000. Please tell us and revise to disclose how the deferred revenue arose.

Notes to Financial Statements
Summary of Significant Accounting Policies
Revenue Recognition and Accounts Receivable, page F-35

27. We note that you may enter into bill-and-hold arrangements with certain customers. Please tell us, on average, how long you hold the products for the customers. Additionally, please quantify the amount of revenue recognized under bill and hold arrangements during each period presented.

28. We note that you have concluded that you are the principle. You further state that you control the collection of the specimens being provided prior to transferring control to the customer. However, in your footnote on inventory you also state that “The Company takes possession of specimens in limited circumstances.” Please tell us in further detail how you determined that you control the specimen before it is transferred to a customer. Additionally, please clarify how, when and by whom the specimens are transferred to the customer.

29. You state the performance obligation is satisfied when the related specimens are collected (rather than upon shipment to the customer). Please tell us your basis under ASC 606 for concluding that control of the specimen has transferred to the customer upon collection rather than upon shipment by you or receipt by the customer.

General

30. Please provide us with supplemental copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, have presented or expect to present to potential investors in reliance on Section 5(d) or Rule 163B of the Securities Act, whether or not you retained, or intend to retain, copies of those communications. Please contact the staff member associated with the review of this filing to discuss how to submit the materials, if any, to us for our review.

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.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Aamira Chaudhry at (202) 551-3389 or Lyn Shenk at (202) 551-3380 if you have questions regarding comments on the financial statements and related matters. Please contact Katherine Bagley at (202) 551-2545 or Dietrich King at (202) 551-8071 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Trade & Services

cc: Tamar Donikyan