

Mail Stop 6010

June 10, 2008

Mr. Stanley Erck
Chief Executive Officer
Iomai Corporation
20 Firstfield Road
Gaithersburg, Maryland 20878

**Re: Iomai Corporation
Preliminary Proxy Statement on Schedule 14A
Filed May 14, 2008
File No. 000-51709**

Dear Mr. Erck:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your documents 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. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not 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.

General

1. Please note that you are required to file with the Commission any written instructions, scripts, and outlines that will be used by any person that solicit proxies on behalf of the company through personal interviews, or telephone, and all other soliciting material that will be furnished to the security holders of the company.
2. Please note that where we provide examples to illustrate what we mean by our comments, they are examples and not complete lists. If our comments are applicable to portions of the filing that we have not cited as examples, please make the appropriate changes in accordance with our comments.

3. We note that the consideration being offered to some of your stockholders in the transactions is shares of Intercell common stock and not cash pursuant to the share exchange. Please provide us an analysis as to why you believe that the information required by paragraphs (b)(8)-(11) and (c)(1) of Item 14 of Schedule 14A is not required to be provided.
4. Please include as CORRESP on EDGAR the letter of your counsel dated May 29, 2008 sent to us by email.
5. Please provide a summary term sheet as required by paragraph (b)(1) of Item 14 of Schedule 14A. Please note that when you provide the summary term sheet you should avoid duplicative disclosure with the Q&A and proxy statement summary. We suggest placing procedural related information in the Q&A and substantive information in the summary, to the extent that these procedural or substantive matters have not already been discussed in the summary term sheet.
6. Revise the proxy statement and form of proxy to identify them as preliminary copies. See Rule 14a-6(e)(1) of Regulation 14A.

Questions and Answers About the Merger and the Special Meeting, page 1

7. Please describe how the exercise price and number of shares underlying the Intercell substitute options will be determined. Your current explanation that it will be in a manner that satisfies the requirements of Treasury Regulation Section 1.409A-1(b)(5)(v)(D) is too technical for the investor to understand. If you have a reasonable estimate, please disclose or provide a meaningful example.
8. Please explain what it means to treat the options in accordance with Section 409A of the Internal Revenue Code. If you have a reasonable estimate, please disclose or provide a meaningful example.
9. Please briefly describe in this section how the stock options issued to your non-employee directors will be different. We note the disclosure on page 8 which indicates that they will be eligible to receive cash consideration.

Vote Required, page 12

10. Please revise your disclosure in this section to clarify that neither Intercell, nor affiliates of Intercell, own any shares of Iomai common stock entitled to vote at the special meeting. If this is not the case, please disclose the shares of common stock held by Intercell and Intercell affiliates and identify the affiliates. In response to this comment, please do not include any shares subject to the Voting Agreement or the Share Exchange Agreement that are owned by the other parties to those agreements.

The Merger, page 14

Background of the Merger, page 14

11. On page 14 you state that you estimated that your Phase 3 program could cost in the range of \$30 to \$45 million in third-party expenses, and given your limited cash reserves, you would need additional funding prior to the commencement of your Phase 3 clinical trial of your needle-free travelers' diarrhea vaccine. Please disclose the amount of additional funding needed and the amount of funding that would be satisfied from your existing resources.
12. Please disclose who conducted the market study on your behalf and disclose any key assumptions or limitations of the study.
13. Please expand your discussion regarding the nine collaboration candidates you engaged in discussions with regarding a strategic collaboration. For example, please disclose the size of the companies and their respective relevant attributes, and explain why the board did not pursue those other alternatives.
14. Please disclose who you engaged as an advisory firm to run the auction process and describe the engagement. Each presentation, discussion or report held with or presented by an outside party that is materially related to the transaction, whether oral or written, is a separate report that requires a reasonably detailed description meeting the requirements of Item 1015(b) of Regulation M-A. This requirement applies to both preliminary and final reports. Please consider the need to provide additional disclosure about any report, opinion or appraisal provided by the advisory firm and provide us a copy of such documents for our review.
15. Please disclose the cash price offered by Company A on April 2, 2008 and explain the board's conclusion on this offer.
16. Please describe the Company B proposal that was discussed at the April 20, 2008 board meeting, and explain why management was disappointed with this proposal and the potential risks and benefits of pursuing it that were discussed. Given your discussion of Iomai's financial condition after you mention the proposal, did you not pursue it because it would not provide sufficient funding or for some other reason?
17. After the April 20, 2008 board meeting at which the board charged management to negotiate a possible business combination with Intercell, was there any other contact with Company A? If so, was Company A given the opportunity to raise its offer? Did it raise its offer?

18. Please describe the exclusivity agreement entered into with Intercell on April 23, 2008, including the length of exclusivity.
19. Please provide a more detailed discussion of the development of the share exchange agreement. When was this first discussed? Who proposed the share exchange? Why was this proposed in addition to the cash?
20. Many of the descriptions of the meetings are vague. Please revise to more specifically describe the information discussed at the meetings. In instances where conclusions are reached based on the discussion at the meeting, state these conclusions. For example:
 - At the February 14, 2008 meeting describe the “particular terms under negotiation.”
 - At the May 2, 2008 meeting describe the “key negotiating points and the proposed resolution of those points.”
21. Please describe the “materials from Cowen relating to their analysis” that you reference on page 17. Each presentation, discussion or report held with or presented by an outside party that is materially related to the transaction, whether oral or written, is a separate report that requires a reasonably detailed description meeting the requirements of Item 1015(b) of Regulation M-A. This requirement applies to both preliminary and final reports. Please consider the need to provide additional disclosure about the materials from Cowen relating to their analysis and provide us a copy of such documents for our review.
22. Supplementally, please provide us with any “board books” or similar materials that Cowen furnished the board relating to its analyses, including the written analyses it delivered to the board on May 12, 2008.

Reasons for the Recommendation of our Board of Directors, page 17

23. In the second full bullet point on page 18, please expand your disclosure regarding the mean and median twenty trading day purchase price premiums that had been paid in selected biotechnology transactions that were 53.4% and 41.2%, respectively. Disclose the “selected biotechnology transactions,” describe how they were selected and disclose the twenty trading day purchase price premiums for each.
24. In the fourth full bullet point on page 18, please expand your disclosure to explain how you calculated the “equity value.”
25. In the fourth full bullet point on page 20, please expand your disclosure to explain the key conflicts of interest the board considered.
26. Please expand the discussion in the last paragraph of this section to clarify that you have discussed all the material factors considered by the board.

Opinion of Cowen and Company, LLC, page 20

27. Please disclose that Cowen has consented to the use of the opinion in the proxy statement.
28. Please disclose any instructions given to Cowen in connection with the opinion or tell us supplementally that no such instructions were given.
29. We note that Cowen relied on the Iomai Forecasts and Wall Street Projections when preparing the opinion and performing the discounted cash flow analysis. Please revise your disclosure in this section to disclose the Iomai Forecasts and Wall Street Projections used by Cowen.
30. We note your disclosure on page 22 that Cowen does not have any obligation to “update, revise or reaffirm its opinion.” The opinion was delivered on May 12, 2008. Please disclose whether any material changes in Iomai’s operations, performance or in any of the projections or assumptions upon which Cowen based its opinion have occurred since the delivery of the opinion or that are anticipated to occur before the security holder meeting.
31. On page 22, you state, “Considering the data set forth in the tables without considering the full narrative description of the financial analyses, including the methodologies and assumptions underlying the analyses, could create a misleading or incomplete view of the financial analyses.” Please revise to disclose all material methodologies and assumptions underlying the analyses.
32. In the Analysis of Selected Publicly Traded Companies, please disclose the equity values and enterprise values of each Selected Company used in arriving at the results in the table at the top of page 23.
33. In the Analysis of Selected Publicly Traded Companies and the Analysis of Selected Transactions, please disclose the equity and enterprise values of each Selected Company, each of the Phase II Transactions and each of the Infectious Disease Transactions. Also, disclose the names of the acquirors and targets for each of the selected transactions.
34. For each analysis mentioned in the previous comment, explain how Cowen used those values to calculate implied equity values for Iomai. Presumably, after calculating the implied enterprise values, Cowen then calculated Iomai’s implied equity values by combining its implied enterprise values with its net debt. If that is not true, please explain how the equity values were calculated.

35. In the Analysis of Premiums Paid in Selected Transactions, please disclose the 22 selected transactions. Disclose the one day premium and 20 day premium for each selected transaction.
36. In this section, please disclose that in the two years preceding the date of the opinion, Cowen served as your placement agent and received fees for the rendering of such services. Disclose the amount of fees received. See Item 1015(b)(4) of Regulation M-A.
37. Please quantify the fees paid or to be paid to Cowen.

Interests of Our Directors and Executive Officers in the Merger, page 25

38. For each executive officer, please disclose the weighted average exercise price or the range of exercise prices of the options that will vest as disclosed on the bottom of page 28.
39. Please describe and quantify the benefits of the merger that Mr. Barrett's affiliate, NEA, will realize as a result of the merger.

Material U.S. Federal Income Tax Consequences, page 29

40. You are required to disclose a description of all of the "material" federal tax consequences of the transaction, rather than "certain" federal tax consequences. Revise the text of this section to clarify that this section addresses the "material" tax consequences of this transaction. See Item 1004(a)(2)(vii) of Regulation M-A. Please make similar changes throughout your proxy statement.
41. Please describe all material tax consequences to stockholders who will receive shares of Intercell stock as consideration in the merger.

Appraisal Rights, page 31

42. Please expand your disclosure in this section to describe that a vote against the merger will not be sufficient to perfect appraisal rights. See Instruction 1 to Item 3 of Schedule 14A which requires you to "Indicate . . . whether a vote against a proposal will be deemed to satisfy any notice requirements under State law with respect to appraisal rights."
43. Please expand your disclosure to describe briefly the statutory procedure dissenting stockholders should follow to perfect their dissenters' rights.

Treatment of Our Stock Options and Warrants, page 32

44. Please expand your disclosure to explain why the options issued under the 1998 Stock Option Plan and 1999 Stock Incentive Plan are being cashed out and why the options issued under the 2005 Incentive Plan are being converted.
45. Please disclose the number of outstanding options issued under the 1998 Stock Option Plan and 1999 Stock Incentive Plan that will be cashed out and disclose the total cash to be paid by InterCell for those options.
46. Please disclose the number of vested and unvested options, respectively, issued under the 2005 Incentive Plan that will be replaced by InterCell options.
47. Please disclose the number of outstanding warrants and disclose the total cash to be paid by InterCell for those warrants.

The Merger Agreement, page 35

48. Please expand your disclosure of the interim financing to disclose the key terms of the loan, including interest rate, interest payments and maturity.

Share Exchange and Voting Agreements, page 46

49. Please expand your description of the share exchange to state, if true, that the shares of InterCell common stock will be issued pursuant to a valid private placement in the U.S. and will be "restricted securities" for the purposes of U.S. federal securities laws.

Stock Ownership of Directors, Executive Officers and Principal Stockholders, page 49

50. For each principal stockholder that is neither a natural person nor a publicly registered company, revise to disclose the natural person(s) who hold voting and dispositive rights, to the extent you have not already done so.

* * *

As appropriate, please revise your proxy statement in response to these comments. You may wish to provide us with marked copies of the revised document to expedite our review. Please furnish a response letter that keys your responses to our comments. Detailed cover letters greatly facilitate our review. Please furnish your cover letter on EDGAR under the form type label CORRESP. 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 filings reviewed by the staff to be certain that they have provided all information investors 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.

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 in the filings reviewed by the staff 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.

Please contact Sonia Barros at (202) 551-3655 or Michael Reedich at (202) 551-3612 with any questions.

Sincerely,

Jeffrey Riedler
Assistant Director

cc: Paul M. Kinsella, Esq.
Marko S. Zatylny, Esq.
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