Mail Stop 4720

December 22, 2009

John C. Houghton
President and Chief Executive Officer
CorMedix Inc.
86 Summit Avenue, Suite 301
Summit, NJ 07901-3647

Re: CorMedix Inc.
Registration Statement on Form S-1
Filed November 25, 2009
File No. 333-163380

Dear Mr. Houghton:

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. 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Registration Statement on Form S-1

General

1. Please note that when you file a pre-effective amendment containing pricing-related information, we may have additional comments. As you are likely aware, you must file this amendment prior to circulating the prospectus.

2. Please note that where we provide examples to illustrate what we mean by our comments, they are examples and not exhaustive lists. If our comments are applicable to portions of the filing that we have not cited as examples, make the appropriate changes in accordance with our comments.

3. Please file as promptly as possible all exhibits required by the Exhibit Table provided in Item 601(a) of Regulation S-K. We will review these documents once they are filed and may have additional comments concerning them.

4. Please provide us proofs of all graphic, visual or photographic information you will provide in the printed prospectus prior to its use, for example in a preliminary prospectus. Please note that we may have comments regarding this material.

Prospectus Summary

Platforms and Products, page 1

5. Please revise the first bullet point to identify the party that licensed the liquid and gel formulations of Neutrolin to you.

6. Please revise the last bullet point to identify the other party to your development agreement for CRMX002 and explain how it will support CRMX001.

7. We note your statement that you published proof-of-concept studies for the slowing progression of chronic kidney disease with CRMX001. Please explain why you will be performing a small biomarker proof of concept study. Is this study intended to demonstrate something different than the published proof of concept study? Additionally, please revise the discussion in the "Business" section to describe the published proof of concept study.

8. Please revise your statement that you are "poised to enter pivotal studies" to clarify that you need an Investigational Device Exemption before you can begin CRMX003 studies.

Risks Associated with Our Business, page 2

9. Please quantify your losses for each of the last three years and in total, and your accumulated deficit.

Risk Factors

General

10. Please delete the statement concerning additional risks or uncertainties that may be unknown to you. It is not appropriate to reference unknown risks or uncertainties in this discussion.

"We have a limited operating history and a history of escalating operating losses…," page 6

11. Please quantify your losses for each of the last three years.

"Our product candidates are still in development." page 7

12. Please include information about the current development stage of each of your product candidates in this risk factor.

"In certain cases, we may rely on a single supplier for a particular manufacturing material…," page 10

13. To the extent that you are dependent on any sole source suppliers, please identify them and indicate which product candidates require materials from these suppliers. If you have agreements with any of these suppliers, please file them as exhibits or provide us with an analysis supporting your determination that you are not required to file them.

"If we lose key management or scientific personnel…," page 11

14. Please identify the members of management and scientific staff that you are highly dependent on. Additionally if you have experienced difficulty hiring or retaining employees, please describe the difficulties you have experienced.

"If we and our licensors do not obtain protection . . .," page 12

15. Please include additional information in this risk factor about which of your patents you consider most material to your business, and therefore most subject to the risk described in this discussion.

"There are certain interlocking relationships among us and certain affiliates of Paramount BioCapital, Inc.…," page 15

16. Please describe Paramount BioCapital's and Paramount Biosciences' businesses. If either is in the business of investing and is invested in any of your competitors, licensees, or potential collaborators, please disclose this information here.

"Provisions in our corporate charter…," page 16

17. Please identify the provisions that may discourage, delay, or prevent a merger, acquisition, or other change in control.

"A significant number of shares of our common stock will become eligible for sale…," page 17

18. Please revise the third paragraph to disclose the weighted exercise price of the outstanding warrants.

Dilution, page 24

19. Please revise your disclosure quantify the number of shares held in escrow.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Financial Uncertainties Related to Future Milestone Payments, page 34

20. Please revise the description of the Shiva Contribution Agreement to disclose the amount of the equity investment, all amounts paid to date, including the initial fee and any milestone payments made to date, aggregate potential milestone payments, and the rate of royalty payments to be made, or a reasonable range of payments, e.g. "teens," "twenties." Similarly, revise the descriptions of your agreements with ND Partners and Dr. Polaschegg.

21. Quantify the number of shares in escrow for payment to ND Partners upon the achievement of milestone.

22. Quantify the minimum annual royalty payments you must make to Dr. Polaschegg and clarify whether these payments are currently being made or if they become payable when a product dependent on the Polaschegg Technology is approved for sale.

23. Please disclose the term and termination provisions for the Shiva, ND Partners and Polaschegg agreements.

Business

General

24. Please revise this section to eliminate the use of jargon. We note the following examples:

    - "Thixotropic gel"
    - "Pilot/vanguard study"
    - "Kaplan-Meier method"
    - "Nephropathy"
    - "Hemodialysis"
    - "Chelation"
    - "eGFR"
    - "Neutropenia agranulocytosis"
    - "Biomarker proof of concept study"

    To the extent that you are not able to eliminate the use of jargon, please revise your discussion to clarify the meaning of such terms. Please note that this list is provided for illustrative purposes and should not be considered exhaustive.

Platforms and Products, page 37

25. On page 38, you state that you "anticipate starting pre-clinical assay development following the completion of this offering." This statement appears to conflict with you statement on page 21, "we may need to raise additional funds following the completion of this offering to … further develop CRMX002, CRMX004 or any other new product candidates." Please revise to clarify.

CRMX003 (CorMedix Neutrolin) and CRMX004, page 39

26. We note your statement on page 42 that you are now the sponsor of the Biolink Neutrolin Investigational Device Exemption. Please confirm whether you have informed the FDA that this Investigational Device Exemption has a new sponsor.

Pivotal Clinical Trial Design, page 43

27. Please explain the meaning of "KDOQI."

28. In the second paragraph on page 43 you state "Each will be powered at 90%, such that the aggregate endpoint will have 80% power (0.9*0.9)." Please explain what this means.

29. Please revise your disclosure to explain the meaning of the symbol α in this discussion and on the comparable one on page 48.

Product Commercialization, page 44

30. We note your statement that you expect to launch CorMedix Neutrolin in late 2012. It is not appropriate to assume FDA approval. Please revise this discussion to clarify that this statement assumes FDA approval and clarify when you would need to obtain FDA approval in order to meet this expected launch date. Additionally, clarify that you might not obtain FDA approval within this timeframe, or at all.

31. Please clarify the current stage of development for CRMX004.

Life Cycle Management, page 50

32. Please clarify your statement that you anticipate seven (7) years of exclusivity is dependent on being the first to obtain FDA approval. Additionally, clarify that you might not receive FDA approval or may not be the first to receive FDA approval for this indication.

Manufacturing, page 51

33. Please identify all sole source providers.

34. Please clarify whether or not you have active agreements with the companies that supply you with the active ingredient and the finished product with respect to CRMX001. If you have any such agreements, identify the companies, disclose the material terms of the agreements in your registration statement and file them as exhibits.

Government Regulation, page 53

35. Please revise this discussion to include a description of the processes by which you obtain FDA approval for a medical devise and a devise/drug combination product or explain how these processes differ from the process of obtaining FDA approval for drugs.

36. We note that the approval process includes preclinical trials, and phase III clinical trials. Additionally, we note that you have stated that you are planning your phase III and pivotal studies for CRMX003 and CRMX001. Please explain whether you have conducted preclinical and Phase I and II studies. If you did not, please explain why this was not necessary.

License Agreements and Intellectual Property, page 58

37. In this section, please disclose the jurisdiction, patent numbers and the duration of all outstanding patents you have licensed, pursuant to Item 101(h)(4)(vii) of Regulation S-K.

Management, page 61

38. In this discussion, please state that your treasurer is currently acting in the capacity of your principal financial officer.

Executive Compensation, page 65

39. Your disclosure concerning the employment agreements and arrangements of John Houghton, Mark Houser and Bruce Cooper does not state the grounds on which any of them would qualify for the annual milestone bonus payments referenced in this discussion, or a portion thereof. Please revise your disclosure to include this information.

40. Please revise your disclosure concerning the 2006 Stock Incentive Plan to specify how the grants of 185,000 stock options were authorized, as your disclosure suggests that your Compensation Committee is not yet empowered to make such grants. Further, as grants under this Plan are designed to compensate your executive officers based on their performance, please indicate what performance-based criteria has been established or that you anticipate will be established in the future.

41. On page 68, you note that awards under the 2006 Stock Incentive Plan are limited to shares, and options to purchase shares, of common stock, but you later state that one potential award under this Plan is a "performance share," which may be paid in the form of either shares of common stock or cash. Please revise your disclosure to clarify this discrepancy.

Principal Stockholders, page 77

42. Please revise your footnote disclosure concerning ND Partners LLC's approximate 12% beneficial ownership stake to disclose the person or persons who may be deemed to beneficially own these shares.

Part II

Item 15. Recent Sales of Unregistered Securities

43. Please revise to identify the individual or entities that purchased the securities in each transaction identified.

Financial Statements

44. If the conversion of your convertible outstanding securities will occur subsequent to the latest balance sheet date or upon consummation of this offering and the conversion will result in a material reduction of earnings applicable to common shareholders (excluding effects of the offering), please present pro forma earnings per share on the face of the income statement for the latest year and interim period. Also, provide a pro forma presentation on the balance sheet for the conversion and include footnote disclosure to explain the pro forma information.

Statement of Operations, pages F-3 and F-13

45. Please explain how you computed the 5,147,700 weighted average common shares outstanding for the year ended December 31, 2008 and the nine months ended September 30, 2009.

Notes to Financial Statements

Note 8. License Agreements, page F-23

46. Please revise to describe the clinical milestones that will trigger release of the Series A common stock held in escrow for Shiva Biomedical LLC. Quantify all payment amounts related to these milestones. Describe and quantify the clinical and regulatory milestones that will trigger future payments to Shiva Biomedical and NDP Partners. Ensure that your revised disclosure describes how these payments relate to the expected stages of the clinical trials and regulatory approval processes that will govern your drug development programs, particularly CRMX003 and CRMX001.

Note 10. Subsequent Events, page F-25

47. Please disclose and quantify any beneficial conversion feature that will be recorded with regard to the issuance of the Third Notes.

48. Please revise to describe how you valued and plan to account for the warrants issued in connection with the Third Notes. Ensure that the corresponding

disclosure in the notes to your financial statements for the nine months ended September 30, 2009 includes these revisions.

* * *

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 disclosures they have made.

Notwithstanding our comments, in the event 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 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 Frank Wyman at (202) 551-3660 or Mary Mast at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Scot Foley at (202) 551-3383, Suzanne Hayes at (202) 551-3675, or me at (202) 551- 3715 with any other questions.

Sincerely,

Jeffrey Riedler
Assistant Director

cc: Yehuda Markovits, Esq.
Olshan Grundman Frome Rosenzweig & Wolosky LLP
Park Avenue Tower
65 East 55th Street
New York, New York 10022