

April 14, 2011

**Via EDGAR and by Federal Express**

Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street, N.E.  
Mail Stop 3561  
Washington, D.C. 20549

**Re: Cyclacel Pharmaceuticals, Inc.  
Pre-Effective Amendment No. 1 to  
Registration Statement on Form S-3/A  
As initially filed on April 4, 2011  
Registration Number 333-173291**

Ladies and Gentleman:

On behalf of Cyclacel Pharmaceuticals, Inc. (the “**Company**”), we hereby file with the Securities and Exchange Commission (the “**Commission**”) Pre-Effective Amendment No. 1 to the Registration Statement on Form S-3/A (Registration No. 333-173291) (the “**Amendment**”) as initially filed with the Commission on April 4, 2011 (the “**Registration Statement**”). We are also delivering five clean and marked complete courtesy copies of the Amendment to the attention of Johnny Gharib, Esq. of the Commission.

Set forth below are the Company’s responses to the comments provided by the staff (the “**Staff**”) of the Commission by way of a letter (the “**Comment Letter**”) dated April 13, 2011, from Jeffrey P. Riedler, Esq., Assistant Director of the Division of Corporation Finance. The Company’s responses are numbered to correspond to the comments, as set forth in the Comment Letter, which, for convenience, we have incorporated into this response letter.

**General**

**1. Please verify that you will file forms of indenture in a pre-effective amendment for the senior and subordinated debt securities.**

*Response:* The Company has filed the form of Indenture relating to senior debt securities and the form of Indenture relating to subordinated debt securities as Exhibits 4.3 and 4.4, respectively, to the Amendment.

**2. We note that you are attempting to register a primary offering of your securities on Form S-3, but the aggregate market value of the common equity held by non-affiliates appears to be less than the \$75 million minimum required by General Instruction I.B.1. of S-3. Accordingly, please provide us with an explanation of why you are eligible to register this offering on Form S-3. If you are relying on General**

**Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.**

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**Instruction I.B.6. of S-3, please confirm this and provide the disclosure on the outside front cover of the prospectus required by Instruction 7 to I.B.6.**

Response: The Company relied on General Instruction I.B.6. in determining that the Company was eligible to use Form S-3 for this offering. Please see the cover page of the prospectus where the following language has been inserted:

“As of February 15, 2011, the aggregate market value of our outstanding common stock held by non-affiliates was approximately \$68,243,087.70 based on 46,595,562 shares of outstanding common stock, of which approximately 45,800,730 shares were held by non-affiliates, and a per share price of \$1.49 based on the closing sale price of our common stock on February 15, 2011. As of the date hereof, we have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12-calendar month period that ends on and includes the date hereof.”

**3. Please confirm that, in connection with each takedown of securities, you will file an amended legal opinion as to the specific securities issued.**

Response: The Company hereby confirms that, in connection with each takedown of securities, it will file an amended legal opinion as to the specific securities issued.

The Company hereby acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in its filings;
- Staff comments or changes to disclosure to Staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

Please call Jeffrey P. Schultz at (212) 692-6732 or the undersigned at (212) 692-6774 with any comments or questions and please send a copy of any written comments to the following parties:

**Joel I. Papernik, Esq.**

**Jeffrey P. Schultz, Esq.**

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

666 Third Avenue

New York, NY 10017

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Securities and Exchange Commission

April 14, 2011

Page 3

Very truly yours,

*/s/ Joel I. Papernik*

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Joel I. Papernik

cc: Securities and Exchange Commission (Jeffrey P. Riedler, Esq., Assistant Director)

Cyclacel Pharmaceuticals, Inc. (Spiro Rombotis, President and Chief Executive Officer; Paul McBarron, Chief Operating Officer, Chief Financial Officer and Executive Vice President, Finance)