**Exhibit 5.1**

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|  |  | Chrysler Center  666 Third Avenue  New York, NY 10017  212-935-3000  212-983-3115 fax  www.mintz.com |

January 11, 2010

Cyclacel Pharmaceuticals, Inc.

200 Connell Drive, Suite 1500

Berkeley Heights, New Jersey 07922

Ladies and Gentlemen:

This opinion is furnished to you in connection with a Prospectus Supplement, dated January 11, 2010 (the “**Prospectus Supplement**”), to a Registration Statement on Form S-3 (File No. 333-140034) (the “**Registration Statement**”) filed by Cyclacel Pharmaceuticals, Inc. (the “**Company**”) with the Securities and Exchange Commission (the “**Commission**”) under the Securities Act of 1933, as amended (the “**Securities Act**”), relating to the sale of an aggregate of 2,850,000 units in a “registered direct” offering (the “**Offering**”) at a purchase price of $2.51 per unit (each, a “**Unit**”). Each Unit consists of (i) one share of the Company’s common stock, par value $0.001 per share (the “**Common Stock**”), and (ii) one warrant to purchase 0.25 of one share of Common Stock (each, a “**Warrant,**” and collectively, the “**Warrants**”), and the shares of Common Stock issuable upon exercise of the Warrants (the “**Warrant Shares**” and, together with the Warrants and the Common Stock, the “**Securities**”), pursuant to a placement agent agreement (the “**Placement Agent Agreement**”) by and between the Company and ROTH Capital Partners, LLC, dated January 11, 2010 and the subscription agreements between the Company and each of the purchasers of the Common Stock and Warrants (each, a “**Subscription Agreement**,” and collectively, the “**Subscription Agreements**”). The Placement Agent Agreement and the forms of Warrants and Subscription Agreement have been filed as exhibits 1.1, 4.1 and 10.1, respectively, to a Current Report on Form 8-K dated January 11, 2010, as filed with the Commission on the date hereof.

In connection with this opinion, we have examined and relied upon the Company’s Amended and Restated Certificate of Incorporation and the Company’s Amended and Restated Bylaws, each as amended to the date hereof and as currently in effect; the minutes of all pertinent meetings of directors of the Company relating to the Registration Statement, the Prospectus Supplement and the transactions contemplated thereby; such other records of the corporate proceedings of the Company and certificates of the Company’s officers as we deemed relevant for the purposes of rendering the opinions set forth in this letter; the Registration Statement and the exhibits filed thereto with the Commission; the Prospectus Supplement; the Placement Agent Agreement; the Subscription Agreements; and the Warrants.

In our examination, we have assumed: (i) the authenticity of original documents and the genuineness of all signatures; (ii) the conformity to the originals of all documents submitted to us as copies; (iii) the truth, accuracy and completeness of the information, representations and warranties contained in the records, documents, instruments and certificates we have reviewed; (iv) the legal capacity of natural persons; and (v) the due execution and delivery of all documents, where due execution and delivery are a prerequisite to the effectiveness thereof.

Based upon the foregoing, and subject to the limitations set forth below, we are of the opinion that: (i) the Common Stock, when issued by the Company and delivered by the Company against payment therefor as contemplated by the Subscription Agreements, will be duly and validly issued, fully paid and non-assessable; (ii) the Warrants, when issued by the Company and delivered by the Company against payment therefor as contemplated by the Subscription Agreements, will be duly and validly issued, fully paid and non-assessable; and (iii) the Warrant Shares, when issued by the Company and delivered by the Company against payment therefor as contemplated by the Warrants, will be duly and validly issued, fully paid and non-assessable.

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

New York | Washington | Boston | Stamford | Los Angeles | Palo Alto | San Diego | London

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

Our opinion that any document is legal, valid and binding is qualified as to:

(a) limitations imposed by bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium or other laws relating to or affecting the rights of creditors generally;

(b) rights to indemnification and contribution, which may be limited by applicable law or equitable principles; and

(c) general principles of equity, including, without limitation, concepts of materiality, reasonableness, good faith and fair dealing, and the possible unavailability of specific performance or injunctive relief and limitation of rights of acceleration, regardless of whether such enforceability is considered in a proceeding in equity or at law.

Our opinions are limited to the General Corporation Laws of the State of Delaware (including the applicable provisions of the Delaware Constitution and the reported judicial decisions interpreting such laws) and the United States federal laws, and we express no opinion with respect to the laws of any other jurisdiction. No opinion is expressed herein with respect to the qualification of the Common Stock under the securities or blue sky laws of any state or any foreign jurisdiction. To the extent that any applicable document is stated to be governed by the laws of another jurisdiction, we have assumed, for purposes of this opinion letter, that the laws of such jurisdiction are identical to the state laws of the State of Delaware.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters. This opinion letter is based upon currently existing statutes, rules, regulations and judicial decisions, and we disclaim any obligation to advise you of any change in any of these sources of law or subsequent legal or factual developments which might affect any matters or opinions set forth herein.

We hereby consent to the filing of this opinion in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act with the Commission as an exhibit to the Current Report on Form 8-K to be filed by the Company in connection with the issue and sale of the Securities and to the use of our name in the above-referenced Prospectus Supplement under the caption “Legal Matters.” In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

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

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