

Cyclacel Pharmaceuticals, Inc.
200 Connell Drive, Suite 1500
Berkeley Heights, NJ 07922

June 18, 2010

VIA EDGAR

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

Re: Cyclacel Pharmaceuticals, Inc.
Post —Effective Amendment No. 1 on Form S-1 to Form S-3, as amended
File Number: 333-140034

Dear Mr. Pitko:

Pursuant to Rule 461 of the Rules and Regulations promulgated under the Securities Act of 1933, as amended, Cyclacel Pharmaceuticals, Inc. (the “Company”) hereby requests that the effectiveness of the above-captioned Post-Effective Amendment No. 1 to Registration Statement on Form S-1 to Form S-3, as amended, be accelerated to Tuesday, June 22, 2010, at 4:30 p.m., EST, or as soon as thereafter practicable.

Please note that we acknowledge the following:

- 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.
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Any questions should be addressed to Avisheh Avini, Esq., at Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Chrysler Center, 666 Third Avenue, New York, New York 10017, telephone (212) 935-3000.

Thank you very much.

Very truly yours,

CYCLCAEL PHARMACEUTICALS, INC.

/s/ Paul McBarron

Paul McBarron

Executive Vice President—Finance,

Chief Financial Officer and Chief Operating Officer

cc: Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
Joel I. Papernik, Esq.