HEPALIFE TECHNOLOGIES INC Form POS AM June 13, 2007

As filed with the Securities and Exchange Commission on June 11, 2007

Registration No. 333-131256

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

POST EFFECTIVE AMENDMENT NO. 1

TO

FORM S-1

REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

HEPALIFE TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Florida 3841 58-2349413
(State or other jurisdiction of (Primary Standard Industrial (I.R.S. Employer

incorporation or organization) Classification Code Number) Identification Number)

Mr. Frank Menzler

60 State Street, Suite 700

60 State Street, Suite 700

Boston, MA 02109

Boston, MA 02109

Telephone: (800) 518-4879

Telephone: (800) 518-4879

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of Communications to:

Joseph Sierchio, Esq.

Sierchio Greco & Greco, LLP

110 East 59th Street

29th Floor

New York, New York 10022

Telephone: (212) 246-3030

Facsimile: (212) 486-0208

Approximate date of commencement of proposed sale to public: Not applicable

If any securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.
If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.
If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. "

DEREGISTRATION OF SECURITIES

We originally registered 11,086,351 shares of our common stock pursuant to the Registration Statement on Form S-1 (File No. 333-131256), as amended and subsequently declared effective by the Securities and Exchange Commission on February 14, 2006. The shares were registered to permit the sale by Fusion Capital Fund II, LLC. of shares of our common stock acquired by it pursuant to the terms of the Common Stock Purchase Agreement dated January 20, 2006 between us and Fusion Capital. We and Fusion Capital mutually agreed to terminate the Common Stock Purchase Agreement effective as of May 11, 2007.

Pursuant to this Post-Effective Amendment No. 1 to the Registration Statement on Form S-1, we are seeking to deregister the 6,954,320 shares of our common stock that were registered pursuant to the Registration Statement and not issued to Fusion Capital pursuant to the Common Stock Purchase Agreement. Therefore, in accordance with our undertaking contained in Part II of the Registration Statement, we hereby respectfully request that the Securities and Exchange Commission remove from registration those shares of common stock that were registered pursuant to the Registration Statement and remaining unissued thereunder. The Registration Statement is hereby amended, as appropriate, to reflect the deregistration of such shares.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Post-Effective Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Boston, Massachusetts, on this 11th day of June, 2007.

HepaLife Technologies, Inc.

By: /s/ Frank Menzler

Frank Menzler

President, Chief Executive Officer,

Director
By: /s Harmel S. Rayat
Harmel S. Rayat
Chief Financial Officer and Principal Accounting Officer
Director
Pursuant to the requirements of the Securities Act of 1933, the following persons in the capacities and on the dates indicated have signed this Form S-1 Registration Statement:
<u>Signature</u>
<u>Title</u>
<u>Date</u>
/s/ Javier Jimenez
Director
June 11, 2007
Javier Jimenez