

The Securities and Exchange Commission has not necessarily reviewed the information in this filing and has not determined if it is accurate and complete.

The reader should not assume that the information is accurate and complete.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM D

OMB APPROVAL

OMB Number: 3235-0076
Estimated average burden
hours per response: 4.00

Notice of Exempt Offering of Securities

1. Issuer's Identity

CIK (Filer ID Number) 0001095981
Name of Issuer CYTORI THERAPEUTICS, INC.
Jurisdiction of Incorporation/Organization DELAWARE
Year of Incorporation/Organization
 Over Five Years Ago
 Within Last Five Years (Specify Year)
 Yet to Be Formed

Previous Names None
MACROPORE INC

Entity Type
 Corporation
 Limited Partnership
 Limited Liability Company
 General Partnership
 Business Trust
 Other (Specify)

2. Principal Place of Business and Contact Information

Name of Issuer CYTORI THERAPEUTICS, INC.
Street Address 1 3020 Callan Road
City San Diego State/Province/Country CA ZIP/PostalCode 92121 Phone Number of Issuer 858-458-0900
Street Address 2

3. Related Persons

Last Name Calhoun First Name Christopher Middle Name J
Street Address 1 3020 Callan Road Street Address 2
City San Diego State/Province/Country CA ZIP/PostalCode 92121
Relationship: Executive Officer Director Promoter

Clarification of Response (if Necessary):

Last Name Hawkins First Name Richard Middle Name J
Street Address 1 3020 Callan Road Street Address 2
City San Diego State/Province/Country CA ZIP/PostalCode 92121
Relationship: Executive Officer Director Promoter

Clarification of Response (if Necessary):

Last Name Hawran First Name Paul Middle Name W
Street Address 1 3020 Callan Road Street Address 2
City San Diego State/Province/Country CA ZIP/PostalCode 92121
Relationship: Executive Officer Director Promoter

Clarification of Response (if Necessary):

Last Name Hedrick First Name Marc Middle Name H

Street Address 1
3020 Callan Road
City
San Diego
Relationship: Executive Officer Director Promoter

Street Address 2
State/Province/Country
CA
ZIP/PostalCode
92121

Clarification of Response (if Necessary):

Last Name
Henriksen
Street Address 1
3020 Callan Road
City
San Diego
Relationship: Executive Officer Director Promoter

First Name
Ronald
Street Address 2
State/Province/Country
CA
ZIP/PostalCode
92121

Middle Name
D

Clarification of Response (if Necessary):

Last Name
Holmes, MD
Street Address 1
3020 Callan Road
City
San Diego
Relationship: Executive Officer Director Promoter

First Name
E
Street Address 2
State/Province/Country
CA
ZIP/PostalCode
92121

Middle Name
Carmack

Clarification of Response (if Necessary):

Last Name
Rickey
Street Address 1
3020 Callan Road
City
San Diego
Relationship: Executive Officer Director Promoter

First Name
David
Street Address 2
State/Province/Country
CA
ZIP/PostalCode
92121

Middle Name
M

Clarification of Response (if Necessary):

Last Name
Saad
Street Address 1
3020 Callan Road
City
San Diego
Relationship: Executive Officer Director Promoter

First Name
Mark
Street Address 2
State/Province/Country
CA
ZIP/PostalCode
92121

Middle Name
E

Clarification of Response (if Necessary):

4. Industry Group

- | | | |
|---|---|--|
| <input type="checkbox"/> Agriculture | Health Care | <input type="checkbox"/> Retailing |
| Banking & Financial Services | <input checked="" type="checkbox"/> Biotechnology | <input type="checkbox"/> Restaurants |
| <input type="checkbox"/> Commercial Banking | <input type="checkbox"/> Health Insurance | Technology |
| <input type="checkbox"/> Insurance | <input type="checkbox"/> Hospitals & Physicians | <input type="checkbox"/> Computers |
| <input type="checkbox"/> Investing | <input type="checkbox"/> Pharmaceuticals | <input type="checkbox"/> Telecommunications |
| <input type="checkbox"/> Investment Banking | <input type="checkbox"/> Other Health Care | <input type="checkbox"/> Other Technology |
| <input type="checkbox"/> Pooled Investment Fund | <input type="checkbox"/> Manufacturing | Travel |
| Is the issuer registered as an investment company under the Investment Company Act of 1940? | Real Estate | <input type="checkbox"/> Airlines & Airports |
| <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Commercial | <input type="checkbox"/> Lodging & Conventions |
| <input type="checkbox"/> Other Banking & Financial Services | <input type="checkbox"/> Construction | <input type="checkbox"/> Tourism & Travel Services |
| <input type="checkbox"/> Business Services | <input type="checkbox"/> REITS & Finance | <input type="checkbox"/> Other Travel |
| Energy | <input type="checkbox"/> Residential | <input type="checkbox"/> Other |
| <input type="checkbox"/> Coal Mining | <input type="checkbox"/> Other Real Estate | |
| <input type="checkbox"/> Electric Utilities | | |
| <input type="checkbox"/> Energy Conservation | | |
| <input type="checkbox"/> Environmental Services | | |
| <input type="checkbox"/> Oil & Gas | | |
| <input type="checkbox"/> Other Energy | | |

5. Issuer Size

- | Revenue Range | OR | Aggregate Net Asset Value Range |
|---|----|---|
| <input type="checkbox"/> No Revenues | | <input type="checkbox"/> No Aggregate Net Asset Value |
| <input type="checkbox"/> \$1 - \$1,000,000 | | <input type="checkbox"/> \$1 - \$5,000,000 |
| <input type="checkbox"/> \$1,000,001 - \$5,000,000 | | <input type="checkbox"/> \$5,000,001 - \$25,000,000 |
| <input type="checkbox"/> \$5,000,001 - \$25,000,000 | | <input type="checkbox"/> \$25,000,001 - \$50,000,000 |
| <input type="checkbox"/> \$25,000,001 - \$100,000,000 | | <input type="checkbox"/> \$50,000,001 - \$100,000,000 |
| <input type="checkbox"/> Over \$100,000,000 | | <input type="checkbox"/> Over \$100,000,000 |
| <input checked="" type="checkbox"/> Decline to Disclose | | <input type="checkbox"/> Decline to Disclose |
| <input type="checkbox"/> Not Applicable | | <input type="checkbox"/> Not Applicable |

6. Federal Exemption(s) and Exclusion(s) Claimed (select all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Rule 504(b)(1) (not (i), (ii) or (iii)) | <input type="checkbox"/> Rule 505 |
| <input type="checkbox"/> Rule 504 (b)(1)(i) | <input checked="" type="checkbox"/> Rule 506 |
| <input type="checkbox"/> Rule 504 (b)(1)(ii) | <input type="checkbox"/> Securities Act Section 4(5) |
| <input type="checkbox"/> Rule 504 (b)(1)(iii) | <input type="checkbox"/> Investment Company Act Section 3(c) |
| | <input type="checkbox"/> Section 3(c)(1) |
| | <input type="checkbox"/> Section 3(c)(2) |
| | <input type="checkbox"/> Section 3(c)(3) |
| | <input type="checkbox"/> Section 3(c)(4) |
| | <input type="checkbox"/> Section 3(c)(5) |
| | <input type="checkbox"/> Section 3(c)(6) |
| | <input type="checkbox"/> Section 3(c)(7) |
| | <input type="checkbox"/> Section 3(c)(9) |
| | <input type="checkbox"/> Section 3(c)(10) |
| | <input type="checkbox"/> Section 3(c)(11) |
| | <input type="checkbox"/> Section 3(c)(12) |
| | <input type="checkbox"/> Section 3(c)(13) |
| | <input type="checkbox"/> Section 3(c)(14) |

7. Type of Filing

- New Notice Date of First Sale **2009-05-11** First Sale Yet to Occur
- Amendment

8. Duration of Offering

Does the Issuer intend this offering to last more than one year? Yes No

9. Type(s) of Securities Offered (select all that apply)

- | | |
|--|---|
| <input checked="" type="checkbox"/> Equity | <input type="checkbox"/> Pooled Investment Fund Interests |
| <input type="checkbox"/> Debt | <input type="checkbox"/> Tenant-in-Common Securities |
| <input checked="" type="checkbox"/> Option, Warrant or Other Right to Acquire Another Security | <input type="checkbox"/> Mineral Property Securities |
| <input type="checkbox"/> Security to be Acquired Upon Exercise of Option, Warrant or Other Right to Acquire Security | <input type="checkbox"/> Other (describe) |

10. Business Combination Transaction

Is this offering being made in connection with a business combination transaction, such as a merger, acquisition or exchange offer? Yes No

Clarification of Response (if Necessary):

11. Minimum Investment

Minimum investment accepted from any outside investor \$0 USD

12. Sales Compensation

Recipient (Associated) Broker or Dealer <input checked="" type="checkbox"/> None	Recipient CRD Number <input checked="" type="checkbox"/> None	
Street Address 1	(Associated) Broker or Dealer CRD Number <input checked="" type="checkbox"/> None	
City	Street Address 2	
State(s) of Solicitation (select all that apply) Check "All States" or check individual States <input type="checkbox"/> All States	State/Province/Country	ZIP/Postal Code
	<input type="checkbox"/> Foreign/non-US	

13. Offering and Sales Amounts

Total Offering Amount \$12,801,756 USD or Indefinite

Total Amount Sold \$4,251,700 USD

Total Remaining to be Sold \$8,550,056 USD or Indefinite

Clarification of Response (if Necessary):

The remaining \$8,550,056 represents the aggregate exercise price of the common stock warrants issued as part of this offering.

14. Investors

Select if securities in the offering have been or may be sold to persons who do not qualify as accredited investors, and enter the number of such non-accredited investors who already have invested in the offering.

Regardless of whether securities in the offering have been or may be sold to persons who do not qualify as accredited investors, enter the total number of investors who already have invested in the offering:

15. Sales Commissions & Finder's Fees Expenses

Provide separately the amounts of sales commissions and finders fees expenses, if any. If the amount of an expenditure is not known, provide an estimate and check the box next to the amount.

Sales Commissions \$0 USD Estimate

Finders' Fees \$0 USD Estimate

Clarification of Response (if Necessary):

16. Use of Proceeds

Provide the amount of the gross proceeds of the offering that has been or is proposed to be used for payments to any of the persons required to be named as executive officers, directors or promoters in response to Item 3 above. If the amount is unknown, provide an estimate and check the box next to the amount.

\$0 USD Estimate

Clarification of Response (if Necessary):

Signature and Submission

Please verify the information you have entered and review the Terms of Submission below before signing and clicking SUBMIT below to file this notice.

Terms of Submission

In submitting this notice, each issuer named above is:

- Notifying the SEC and/or each State in which this notice is filed of the offering of securities described and undertaking to furnish them, upon written request, in the accordance with applicable law, the information furnished to offerees.*
- Irrevocably appointing each of the Secretary of the SEC and, the Securities Administrator or other legally designated officer of the State in which the issuer maintains its principal place of business and any State in which this notice is filed, as its agents for service of process, and agreeing that these persons may accept service on its behalf, of any notice, process or pleading, and further agreeing that such service may be made by registered or certified mail, in any Federal or state action, administrative proceeding, or arbitration brought against the issuer in any place subject to the jurisdiction of the United States, if the action, proceeding or arbitration (a) arises out of any activity in connection with the offering of securities that is the subject of this notice, and (b) is founded, directly or indirectly, upon the provisions of: (i) the Securities Act of 1933, the Securities Exchange Act of 1934, the Trust Indenture Act of 1939, the Investment Company Act of 1940, or the Investment Advisers Act of 1940, or any rule or regulation under any of these statutes, or (ii) the laws of the State in which the issuer maintains its principal place of business or any State in which this notice is filed.
- Certifying that, if the issuer is claiming a Rule 505 exemption, the issuer is not disqualified from relying on Rule 505 for one of the reasons stated in Rule 505(b)(2)(iii).

Each Issuer identified above has read this notice, knows the contents to be true, and has duly caused this notice to be signed on its behalf by the undersigned duly authorized person.

For signature, type in the signer's name or other letters or characters adopted or authorized as the signer's signature.

Issuer	Signature	Name of Signer	Title	Date
CYTORI THERAPEUTICS, INC.	/s/ Jonathan E. Soneff	Jonathan E. Soneff	Secretary	2009-06-30

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

* This undertaking does not affect any limits Section 102(a) of the National Securities Markets Improvement Act of 1996 ("NSMIA") [Pub. L. No. 104-290, 110 Stat. 3416 (Oct. 11, 1996)] imposes on the ability of States to require information. As a result, if the securities that are the subject of this Form D are "covered securities" for purposes of NSMIA, whether in all instances or due to the nature of the offering that is the subject of this Form D, States cannot routinely require offering materials under this undertaking or otherwise and can require offering materials only to the extent NSMIA permits them to do so under NSMIA's preservation of their anti-fraud authority.