UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 8-K

Current Report

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 29, 2009

CYTORI THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation)

000-32501 (Commission File Number) **33-0827593** (I.R.S. Employer Identification Number)

3020 Callan Road, San Diego, California 92121 (Address of principal executive offices, with zip code)

(858) 458-0900

(Registrant's telephone number, including area code)

n/a

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 5.02 Departure of Directors or Principal Officers; Election of Directors; Appointment of Principal Officers; Compensatory Arrangements of Certain Officers

(e) Compensatory Arrangements of Certain Officers On October 29, 2009, the Board of Directors of the Company directed the Company to enter into individual change of control agreements (in form approved by the Board of Directors as filed with the Company's 2007 Form 10K on March 14, 2008) (the "Agreements") with Mr. Seijiro Shirahama, President Asia-Pacific, and Mr. Bruce Reuter, Senior Vice President of U.S. Sales, each a "named executive officer". The Agreements will provide for certain severance benefits to be paid to each of these executives in the event of his involuntary termination without cause, or due to the executive's resignation for good reason (including the Company's material breach of its obligations, material reduction in duties, responsibilities, compensation or benefits, or relocation by more than 30 miles without prior consent), provided such termination or resignation occurs in connection with an acquisition of the Company. Upon such termination or resignation, Mr. Shirahama would receive a lump sum payment of 12 times his monthly base salary, and 12 times his monthly COBRA payments and Mr. Reuter will receive a lump sum payment of 6 times his monthly base salary and 6 times his monthly COBRA payments. Notwithstanding the foregoing, these executives' employment may be terminated for cause (including extended disability, repudiation of the Agreement, conviction of a plea of no contest to certain crimes or misdemeanors, negligence that materially harms the company, failure to perform material duties without cure, drug or alcohol use that materially interferes with performance, and chronic unpermitted absence) without triggering an obligation for the Company to pay severance benefits under the Agreements.

In addition, under the Agreements, any unvested stock options granted to each of the above named executives would vest in full upon (1) the date of the executive's termination under the circumstances described above following entry into an acquisition agreement (subject to the actual consummation of the acquisition) or (2) consummation of an acquisition.

The Board also directed the Company to enter into the Agreement on terms consistent with the above, with each of the remaining five officers of the Company that have not previously entered into a change of control agreement.

In all events, each officer's entitlement to the benefits described above is expressly conditioned upon his execution and delivery to the Company of an Agreement and General Release of claims, in the form to be attached to the Agreement.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CYTORI THERAPEUTICS, INC.

Date: November 4, 2009

By: /s/ Marc H. Hedrick
Marc H. Hedrick
President