

CLEVELAND BIOLABS INC  
Form 10-Q  
May 14, 2009

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended March 31, 2009

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_ to \_\_\_\_

Commission file number 001-32954

CLEVELAND BIOLABS, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of incorporation or organization)

20-0077155

(I.R.S. Employer Identification No.)

73 High Street, Buffalo, New York  
(Address of principal executive offices)

14203  
(Zip Code)

(Registrant's telephone number, including area code) (716) 849-6810

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(Former name, former address and former fiscal year,  
if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

As of May 12, 2009, there were 14,610,466 shares outstanding of registrant's common stock, par value \$0.005 per share

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CLEVELAND BIOLABS INC  
10-Q  
5/14/2009

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In this report, "Cleveland BioLabs," "CBLI," "we," "us" and "our" refer to Cleveland BioLabs, Inc. Our common stock, par value \$0.005 per share is referred to as "common stock."



## CLEVELAND BIOLABS, INC.

## BALANCE SHEETS

March 31, 2009 (unaudited) and December 31, 2008

|                               | March 31<br>2009<br>(unaudited) | December 31<br>2008 |
|-------------------------------|---------------------------------|---------------------|
| <b>ASSETS</b>                 |                                 |                     |
| <b>CURRENT ASSETS</b>         |                                 |                     |
| Cash and equivalents          | \$ 3,735,017                    | \$ 299,849          |
| Short-term investments        | -                               | 1,000,000           |
| Accounts receivable:          |                                 |                     |
| Trade                         | 1,539,291                       | 1,043,821           |
| Interest                      | -                               | 9,488               |
| Other prepaid expenses        | 213,765                         | 510,707             |
| Total current assets          | 5,488,073                       | 2,863,865           |
| <b>EQUIPMENT</b>              |                                 |                     |
| Computer equipment            | 312,173                         | 309,323             |
| Lab equipment                 | 1,120,621                       | 1,102,465           |
| Furniture                     | 326,654                         | 312,134             |
|                               | 1,759,448                       | 1,723,922           |
| Less accumulated depreciation | 729,439                         | 637,840             |
|                               | 1,030,009                       | 1,086,082           |
| <b>OTHER ASSETS</b>           |                                 |                     |
| Intellectual property         | 748,468                         | 733,051             |
| Deposits                      | 23,482                          | 23,482              |
|                               | 771,950                         | 756,533             |
| <b>TOTAL ASSETS</b>           | <b>\$ 7,290,032</b>             | <b>\$ 4,706,480</b> |

## CLEVELAND BIOLABS, INC.

## BALANCE SHEETS

March 31, 2009 (unaudited) and December 31, 2008

|   | March 31<br>2009<br>(unaudited) | December 31<br>2008 |
|---|---------------------------------|---------------------|
| <b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>   |                                 |                     |
| <b>CURRENT LIABILITIES</b>  |                                 |                     |
| Accounts payable  | \$ 978,148                      | \$ 1,101,961        |
| Deferred revenue  | 2,383,486                       | 2,365,312           |
| Dividends payable   | 40,506                          | 321,293             |
| Accrued expenses  | 203,745                         | 379,653             |
| Accrued warrant liability   | 4,401,606                       | -                   |
| Total current liabilities   | 8,007,491                       | 4,168,219           |
| <b>STOCKHOLDERS' EQUITY</b>   |                                 |                     |
| Preferred stock, \$.005 par value   |                                 |                     |
| Authorized - 10,000,000 shares at March 31, 2009 and December 31, 2008  |                                 |                     |
| Series B convertible preferred stock, Issued and outstanding 2,816,116 and 3,160,974 shares at March 31, 2009 and December 31, 2008, respectively | 14,081                          | 15,805              |
| Series D convertible preferred stock, Issued and outstanding 542.84 and 0 shares at March 31, 2009 and December 31, 2008, respectively            | 3                               | -                   |
| Common stock, \$.005 par value  |                                 |                     |
| Authorized – 40,000,000 shares at March 31, 2009 and December 31, 2008  |                                 |                     |
| Issued and outstanding 14,316,077 and 13,775,805 shares at March 31, 2009 and December 31, 2008, respectively                                     | 71,580                          | 68,879              |
| Additional paid-in capital  | 58,670,957                      | 56,699,750          |
| Accumulated deficit   | (59,474,080)                    | (56,246,173)        |
| Total stockholders' equity (deficit)  | (717,459)                       | 538,261             |
| <b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>   | <b>\$ 7,290,032</b>             | <b>\$ 4,706,480</b> |

## CLEVELAND BIOLABS, INC.

## STATEMENT OF OPERATIONS

Three Months Ending March 31, 2009 and 2008 (unaudited)

|  | Three Months Ended              |                                 |
|--|---------------------------------|---------------------------------|
|  | March 31<br>2009<br>(unaudited) | March 31<br>2008<br>(unaudited) |
| <b>REVENUES</b>  |                                 |                                 |
| Grant and contract   | \$ 2,309,731                    | \$ 556,324                      |
| Service  | -                               | 120,000                         |
|  | 2,309,731                       | 676,324                         |
| <b>OPERATING EXPENSES</b>  |                                 |                                 |
| Research and development   | 2,502,881                       | 3,551,386                       |
| Selling, general and administrative  | 1,121,890                       | 1,193,114                       |
| Total operating expenses   | 3,624,771                       | 4,744,500                       |
| <b>LOSS FROM OPERATIONS</b>  | <b>(1,315,040)</b>              | <b>(4,068,176)</b>              |
| <b>OTHER INCOME</b>  |                                 |                                 |
| Interest income  | 5,308                           | 145,127                         |
| Sublease revenue   | 4,505                           | 2,656                           |
| Gain on disposal of fixed assets   | -                               | 1,394                           |
| Gain on investment   | -                               | 3,292                           |
| Total other income   | 9,813                           | 152,469                         |
| <b>OTHER EXPENSE</b>   |                                 |                                 |
| Warrant issuance costs   | 266,970                         | -                               |
| Corporate relocation   | -                               | 54,344                          |
| Interest expense   | 1,960                           | -                               |
| Change in value of warrant liability   | 1,384,772                       | -                               |
| Total other expense  | 1,653,702                       | 54,344                          |
| <b>NET LOSS</b>  | <b>\$ (2,958,929)</b>           | <b>\$ (3,970,051)</b>           |
| <b>DIVIDENDS ON CONVERTIBLE PREFERRED STOCK</b>  | <b>(268,979)</b>                | <b>(316,286)</b>                |
| <b>NET LOSS AVAILABLE TO COMMON SHAREHOLDERS</b>   | <b>\$ (3,227,908)</b>           | <b>\$ (4,286,337)</b>           |
| <b>NET LOSS AVAILABLE TO COMMON SHAREHOLDERS PER SHARE OF<br/>COMMON STOCK - BASIC AND DILUTED</b>     | <b>\$ (0.24)</b>                | <b>\$ (0.33)</b>                |
| <b>WEIGHTED AVERAGE NUMBER OF SHARES USED IN CALCULATING NET<br/>LOSS PER SHARE, BASIC AND DILUTED</b> | <b>13,607,114</b>               | <b>13,143,686</b>               |





## CLEVELAND BIOLABS, INC.

## STATEMENTS OF CASH FLOWS

For the Three Months Ended March 31, 2009 and 2008 (unaudited)

|   | March 31<br>2009<br>(unaudited) | March 31<br>2008<br>(unaudited) |
|---|---------------------------------|---------------------------------|
| <b>CASH FLOWS FROM OPERATING ACTIVITIES</b>                                 |                                 |                                 |
| Net loss  | \$ (2,958,929)                  | \$ (3,970,051)                  |
| Adjustments to reconcile net loss to net cash used by operating activities: |                                 |                                 |
| Depreciation  | 91,599                          | 76,809                          |
| Noncash salaries and consulting expense                                     | 274,101                         | (192,626)                       |
| Loss on abandoned patents   | 23,984                          | -                               |
| Series D warrant issuance costs   | 266,970                         | -                               |
| Change in value of warrant liability  | 1,384,772                       | -                               |
| Changes in operating assets and liabilities:                                |                                 |                                 |
| Accounts receivable - trade   | (495,470)                       | (364,074)                       |
| Accounts receivable - interest  | 9,488                           | 7,407                           |
| Other prepaid expenses  | 296,942                         | (114,394)                       |
| Deposits  | -                               | (881)                           |
| Accounts payable  | (123,812)                       | 555,663                         |
| Deferred revenue  | 18,174                          | (90,749)                        |
| Accrued expenses  | (175,908)                       | (200,539)                       |
| Milestone payments  | -                               | 50,000                          |
| Total adjustments   | 1,570,840                       | (273,384)                       |
| Net cash (used in) provided by operating activities                         | (1,388,089)                     | (4,243,435)                     |
| <b>CASH FLOWS FROM INVESTING ACTIVITIES</b>                                 |                                 |                                 |
| Sale of short-term investments  | 1,000,000                       | -                               |
| Purchase of equipment   | (35,525)                        | (55,070)                        |
| Costs of patents pending  | (39,402)                        | (150,743)                       |
| Net cash (used in) provided by investing activities                         | 925,073                         | (205,813)                       |
| <b>CASH FLOWS FROM FINANCING ACTIVITIES</b>                                 |                                 |                                 |
| Proceeds from issuance of Series D preferred stock and warrants             | 5,428,307                       | -                               |
| Financing costs on Series D preferred stock                                 | (720,175)                       | -                               |
| Series D warrant issuance costs   | (266,970)                       | -                               |
| Dividends   | (549,766)                       | (661,295)                       |
| Exercise of stock options   | 6,788                           | 737                             |
| Net cash (used in) provided by financing activities                         | 3,898,184                       | (660,558)                       |
| <b>INCREASE (DECREASE) IN CASH AND EQUIVALENTS</b>                          | <b>3,435,168</b>                | <b>(5,109,806)</b>              |
| <b>CASH AND EQUIVALENTS AT BEGINNING OF PERIOD</b>                          | <b>299,849</b>                  | <b>14,212,189</b>               |

|  |              |                |
|--|--------------|----------------|
| CASH AND EQUIVALENTS AT END OF PERIOD  | \$ 3,735,017 | \$ 9,102,383   |
| Supplemental disclosures of cash flow information:                                 |              |                |
| Cash paid during the period for interest   | \$ 1,960     | \$ -           |
| Cash paid during the year for income taxes   | \$ -         | \$ -           |
| Supplemental schedule of noncash financing activities:                             |              |                |
| Issuance of stock options to employees, consultants, and independent board members | \$ 101,563   | \$ 728,077     |
| Conversion of Series B preferred stock to common stock                             | \$ 2,172,605 | \$ 2,177,154   |
| Expense recapture of expense for options expensed in 2007 but issued in 2008       | \$ -         | \$ (1,459,425) |
| Expense recapture of expense for options that were nonvested and forfeited         | \$ (37,878)  | \$ -           |
| Issuance of shares to consultants and employees                                    | \$ 202,083   | \$ 521,000     |
| Accrual of Series B preferred stock dividends                                      | \$ 268,979   | \$ 316,287     |
| Amortization of restricted shares issued to employees                              | \$ 8,333     | \$ 17,722      |

CLEVELAND BIOLABS, INC.

## STATEMENTS OF STOCKHOLDERS' EQUITY AND COMPREHENSIVE LOSS

Period From January 1, 2008 to December 31, 2008 and to  
March 31, 2009 (unaudited)

|   | Stockholders'<br>Equity |                        |
|---|-------------------------|------------------------|
|   | Shares                  | Common Stock<br>Amount |
| Balance at January 1, 2008  | 12,899,241              | \$ 64,496              |
| Issuance of options   | -                       | -                      |
| Partial recapture of expense for options expensed in 2007<br>but issued in 2008 | -                       | -                      |
| Issuance of restricted shares   | 130,000                 | 650                    |
| Restricted stock awards   | -                       | -                      |
| Exercise of options   | 37,271                  | 186                    |
| Conversion of Series B Preferred Shares to Common                               | 709,293                 | 3,547                  |
| Dividends on Series B Preferred shares  | -                       | -                      |
| Net Loss  | -                       | -                      |
| Balance at December 31, 2008  | 13,775,805              | \$ 68,879              |
| Issuance of options   | -                       | -                      |
| Issuance of restricted shares   | 80,000                  | 400                    |
| Recapture of expense for nonvested options forfeited                            | -                       | -                      |
| Restricted stock awards   | -                       | -                      |
| Exercise of options   | 10,132                  | 51                     |
| Conversion of Series B Preferred Shares to Common                               | 450,140                 | 2,251                  |
| Dividends on Series B Preferred shares  | -                       | -                      |
| Issuance of shares - Series D financing   | -                       | -                      |
| Allocation of financing proceeds to fair value of Series D warrants             | -                       | -                      |
| Fees associated with Series D Preferred offering                                | -                       | -                      |
| Net Loss  | -                       | -                      |
| Balance at March 31, 2009   | 14,316,077              | \$ 71,580              |

CLEVELAND BIOLABS, INC.

## STATEMENTS OF STOCKHOLDERS' EQUITY AND COMPREHENSIVE LOSS

Period From January 1, 2008 to December 31, 2008 and to  
March 31, 2009 (unaudited)

|  | Stockholders'<br>Equity |           | Preferred<br>Stock |        |
|--|-------------------------|-----------|--------------------|--------|
|  | Series B                | Amount    | Series D           | Amount |
| Balance at January 1, 2008   | 3,870,267               | \$ 19,351 | -                  | \$ -   |
| Issuance of options  | -                       | -         | -                  | -      |
| Partial recapture of expense for options expensed in<br>2007<br>but issued in 2008 | -                       | -         | -                  | -      |
| Issuance of restricted shares  | -                       | -         | -                  | -      |
| Restricted stock awards  | -                       | -         | -                  | -      |
| Exercise of options  | -                       | -         | -                  | -      |
| Conversion of Series B Preferred Shares to Common                                  | (709,293)               | (3,547)   | -                  | -      |
| Dividends on Series B Preferred shares   | -                       | -         | -                  | -      |
| Net Loss   | -                       | -         | -                  | -      |
| Balance at December 31, 2008   | 3,160,974               | \$ 15,805 | -                  | \$ -   |
| Issuance of options  | -                       | -         | -                  | -      |
| Issuance of restricted shares  | -                       | -         | -                  | -      |
| Recapture of expense for nonvested options forfeited                               | -                       | -         | -                  | -      |
| Restricted stock awards  | -                       | -         | -                  | -      |
| Exercise of options  | -                       | -         | -                  | -      |
| Conversion of Series B Preferred Shares to Common                                  | (344,858)               | (1,724)   | -                  | -      |
| Dividends on Series B Preferred shares   | -                       | -         | -                  | -      |
| Issuance of shares - Series D financing  | -                       | -         | 543                | 3      |
| Allocation of financing proceeds to fair value of<br>Series D warrants             | -                       | -         | -                  | -      |
| Fees associated with Series D Preferred offering                                   | -                       | -         | -                  | -      |
| Net Loss   | -                       | -         | -                  | -      |
| Balance at March 31, 2009  | 2,816,116               | \$ 14,081 | 543                | \$ 3   |

## CLEVELAND BIOLABS, INC.

## STATEMENTS OF STOCKHOLDERS' EQUITY AND COMPREHENSIVE LOSS

Period From January 1, 2008 to December 31, 2008 and to  
March 31, 2009 (unaudited)

## Stockholders' Equity

|  | Additional<br>Paid-in<br>Capital | Other<br>Comprehensive<br>Income/(Loss) | Accumulated<br>Deficit | Total         | Comprehensive<br>Income<br>(Loss) |
|--|----------------------------------|---|------------------------|---------------|-----------------------------------|
| Balance at January 1, 2008   | \$ 55,148,608                    | \$ -                                    | \$ (41,038,212)        | \$ 14,194,244 |                                   |
| Issuance of options  | 2,287,803                        | -                                       | -                      | 2,287,803     |                                   |
| Partial recapture of expense for<br>options expensed in 2007<br>but issued in 2008 | (1,459,425)                      | -                                       | -                      | (1,459,425)   |                                   |
| Issuance of restricted shares  | 625,850                          | -                                       | -                      | 626,500       |                                   |
| Restricted stock awards  | 72,722                           | -                                       | -                      | 72,722        |                                   |
| Exercise of options  | 24,191                           | -                                       | -                      | 24,378        |                                   |
| Conversion of Series B Preferred<br>Shares to Common                               | -                                | -                                       | -                      | -             |                                   |
| Dividends on Series B Preferred<br>shares  | -                                | -                                       | (1,182,033)            | (1,182,033)   |                                   |
| Net Loss   | -                                | -                                       | (14,025,927)           | (14,025,927)  | \$ (14,025,927)                   |
| Balance at December 31, 2008   | \$ 56,699,750                    | \$ -                                    | \$ (56,246,172)        | \$ 538,261    |                                   |
| Issuance of options  | 101,563                          | -                                       | -                      | 101,563       |                                   |
| Issuance of restricted shares  | 201,683                          | -                                       | -                      | 202,083       |                                   |
| Recapture of expense for nonvested<br>options forfeited                            | (37,878)                         | -                                       | -                      | (37,878)      |                                   |
| Restricted stock awards  | 8,333                            | -                                       | -                      | 8,333         |                                   |
| Exercise of options  | 6,738                            | -                                       | -                      | 6,788         |                                   |
| Conversion of Series B Preferred<br>Shares to Common                               | (526)                            | -                                       | -                      | -             |                                   |
| Dividends on Series B Preferred<br>shares  | -                                | -                                       | (268,979)              | (268,979)     |                                   |
| Issuance of shares - Series D financing  | 5,428,304                        | -                                       | -                      | 5,428,850     |                                   |
| Allocation of financing proceeds to<br>fair value of Series D warrants             | (3,016,834)                      | -                                       | -                      | (3,016,834)   |                                   |
| Fees associated with Series D<br>Preferred offering                                | (720,175)                        | -                                       | -                      | (720,175)     |                                   |
| Net Loss   | -                                | -                                       | (2,958,929)            | (2,958,929)   | \$ (2,958,929)                    |
| Balance at March 31, 2009  | \$ 58,670,957                    | \$ -                                    | \$ (59,474,080)        | \$ (717,459)  |                                   |

CLEVELAND BIOLABS, INC.

NOTES TO FINANCIAL STATEMENTS

Note 1. Organization

Cleveland BioLabs, Inc. (“CBLI” or the “Company”) is engaged in the discovery, development and commercialization of products for cancer treatment and protection of normal tissues from radiation and other stresses. The Company was incorporated under the laws of the State of Delaware on June 5, 2003 and is headquartered in Buffalo, New York.

Basis of Presentation

The Company’s financial statements have been prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America.

The Company recently secured additional financing to sustain operations by issuing additional convertible preferred shares with warrants. The Company is also exploring individual investment or licensing arrangements and plans to submit proposals for government contracts and grants over the next two years totaling over \$30 million. Many of the proposals will be submitted to government agencies that have awarded contracts and grants to the Company in the recent past. Finally, the Company has implemented cost containment efforts that permit the incurrence of only those costs that are properly funded, either through a government contract or grant or other capital sources such as direct investment. It is expected that the successful implementation of the financing and cost containment efforts identified above will allow the Company to continue to realize its assets and liquidate its liabilities in the ordinary course of business.

Note 2. Summary of Significant Accounting Policies

A. Basis of Presentation - The information at March 31, 2009 and March 31, 2008, and for the three-months ended March 31, 2009 and March 31, 2008, is unaudited. In the opinion of management, these financial statements include all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation of the results for the interim periods presented. Interim results are not necessarily indicative of results for a full year. These financial statements should be read in conjunction with CBLI’s audited financial statements for the year ended December 31, 2008, which were contained in the Company’s Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission.

B. Cash and Equivalents - The Company considers highly liquid investments with a maturity date of three months or less to be cash equivalents. In addition, the Company maintains cash and equivalents at financial institutions, which may exceed federally insured amounts at times and which may, at times, significantly exceed balance sheet amounts due to outstanding checks.

C. Marketable Securities and Short Term Investments - The Company considers investments with a maturity date of more than three months to be short-term investments and has classified these securities as available-for-sale. Such investments are carried at fair value, with unrealized gains and losses included as accumulated other comprehensive income (loss) in stockholders' equity. The cost of available-for-sale securities sold is determined based on the specific identification method.

D. Accounts Receivable - The Company extends unsecured credit to customers under normal trade agreements, which generally require payment within 30 days. Management estimates an allowance for doubtful accounts which is based upon management's review of delinquent accounts and an assessment of the Company's historical evidence of

collections. There is no allowance for doubtful accounts as of March 31, 2009 and December 31, 2008.

E. Equipment - Equipment is stated at cost and depreciated over the estimated useful lives of the assets (generally five years) using the straight-line method. Leasehold improvements are depreciated on the straight-line method over the shorter of the lease term or the estimated useful lives of the assets. Expenditures for maintenance and repairs are charged to expense as incurred. Major expenditures for renewals and betterments are capitalized and depreciated. Depreciation expense was \$91,599 and \$76,809 for the three-months ended March 31, 2009 and 2008, respectively.

F. Impairment of Long-Lived Assets - In accordance with Statements of Financial Accounting Standards, or SFAS, No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets, long-lived assets to be held and used, including equipment and intangible assets subject to depreciation and amortization, are reviewed for impairment at least annually and whenever events or changes in circumstances indicate that the carrying amounts of the assets or related asset group may not be recoverable. Determination of recoverability is based on an estimate of discounted future cash flows resulting from the use of the asset and its eventual disposition. In the event that such cash flows are not expected to be sufficient to recover the carrying amount of the asset or asset group, the carrying amount of the asset is written down to its estimated net realizable value.

G. Intellectual Property - The Company capitalizes the costs associated with the preparation, filing, and maintenance of patent applications relating to intellectual property. If the patent applications are approved, costs paid by the Company associated with the preparation, filing, and maintenance of the patents will be amortized on a straight-line basis over the shorter of 20 years or the anticipated useful life of the patent. If the patent application is not approved, the costs associated the patent application will be expensed as part of selling, general and administrative expenses at that time. Capitalized intellectual property is reviewed at least annually for impairment.

A portion of this intellectual property is owned by the Cleveland Clinic Foundation, or CCF, and granted to the Company through an exclusive licensing agreement. As part of the licensing agreement, CBLI agrees to bear the costs associated with the preparation, filing and maintenance of patent applications relating to this intellectual property. Gross capitalized patents pending costs were \$622,635 and \$629,363 for twelve and thirteen patent applications as of March 31, 2009 and December 31, 2008, respectively. All of the CCF patent applications are still pending approval. During 2009, the Company abandoned one patent application due to developing an improved drug for the same application and expensed \$23,984 in selling, general and administrative expenses.

The Company also has submitted six patent applications as a result of intellectual property exclusively developed and owned by the Company. Gross capitalized patents pending costs were \$125,833 and \$103,688 for six and five patent applications as of March 31, 2009 and December 31, 2008, respectively. The patent applications are still pending approval.

H. Line of Credit - The Company has a working capital line of credit that is fully secured by short-term investments. This fully-secured, working capital line of credit carries an interest rate of prime, a borrowing limit of \$1,000,000, and expires on September 25, 2009. At March 31, 2009, there were no outstanding borrowings under this credit facility.

I. Accrued Warrant Liability – The Company has issued warrants as part of the Series D Private Placement (as defined in Note 3). The warrants meet the definition of a derivative instrument in accordance with SFAS 133 as the warrants are not indexed to the Company’s stock, and consequently, should be accounted for as a derivative instrument. Therefore, the warrants are initially recorded as accrued warrant liabilities at their fair values on the date of issuance. Subsequent changes in the value of the warrants are shown in the statement of operations as “change in value of warrant liability.”

These warrants carry a seven-year term and are fully exercisable for common shares of the Company at \$1.60 per share. The Company has a balance in accrued warrant liability of \$4,401,606 and \$0 at March 31, 2009 and December 31, 2008, respectively.

J. Fair Value of Financial Instruments - Financial instruments, including cash and equivalents, accounts receivable, notes receivable, accounts payable and accrued liabilities, are carried at net realizable value.



In September 2006, The Financial Accounting Standards Board (“FASB”) issued Statement of Financial Accounting Standards (“SFAS”) No. 157, “Fair Value Measurements.” SFAS No. 157 provides enhanced guidance for using fair value to measure assets and liabilities and expands disclosure with respect to fair value measurements. This statement was originally effective for fiscal years beginning after November 15, 2007. In February 2008, the FASB issued FSP157-2 which allows companies to elect a one-year deferral of adoption of SFAS No. 157 for non-recurring assets and non-financial liabilities that are recognized or disclosed at fair value in the financial statements on a non-recurring basis. The Company has adopted SFAS No. 157 as of January 1, 2008.

SFAS No. 157 establishes a valuation hierarchy for disclosure of the inputs to valuation used to measure fair value. This hierarchy prioritizes the inputs into three broad levels as follows: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities; Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly; and Level 3 inputs are unobservable inputs in which little or no market data exists, therefore requiring a company to develop its own assumptions. The Company does not have any significant assets or liabilities measured at fair value using Level 1 or Level 2 inputs as of March 31, 2009.

The Company analyzed all financial instruments with features of both liabilities and equity under SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity," SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," and EITF 00-19, "Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock."

The Company carries its warrants issued in connection with the Series D Private Placement at fair value totaling \$4,401,606 and \$0 as of March 31, 2009 and December 31, 2008, respectively. The Company used Level 3 inputs for its valuation methodology for the warrant liability, and their fair values were determined using the Black-Scholes option pricing model based on the following assumptions:

|   | Warrant<br>Value at<br>March 31,<br>2009 |
|---|--|
| Stock price   | \$ 2.56                                  |
| Exercise price  | \$ 1.60                                  |
| Term in years   | 2.00                                     |
| Volatility  | 110.14%                                  |
| Annual rate of quarterly dividends  | -  |
| Discount rate- bond equivalent yield  | 0.89%                                    |
| Discount due to limitations on marketability,<br>liquidity and other credit factors | 40.00%                                   |

| Liabilities       | Fair Value<br>As of<br>March 31,<br>2009 | Fair Value Measurements at<br>March 31, 2009 |              |         |
|-------------------|--|--|--------------|---------|
|                   |  | Level 1                                      | Level 2      | Level 3 |
| Warrant liability | \$ 4,401,606                             |  | \$ 4,401,606 |         |

The Company recognized a fair value measurement loss of \$1,384,772 and \$0 for the quarters ended March 31, 2009 and March 31, 2008, respectively.

The Company did not identify any other non-recurring assets and liabilities that are required to be presented on the balance sheets at fair value in accordance with SFAS 157.

K. Use of Estimates - The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company bases its estimates on

historical experience and on various other assumptions that the Company believes to be reasonable under these circumstances. Actual results could differ from those estimates.

L. Revenue Recognition - The Company recognizes revenue in accordance with Staff Accounting Bulletin No. 104, "Revenue Recognition", or SAB 104, and Statement of Financial Accounting Standards No. 116, or SFAS 116. Revenue sources consist of government grants, government contracts and commercial development contracts.

Revenues from government grants and contracts are for research and development purposes and are recognized in accordance with the terms of the award and the government agency per SAB 104. Grant revenue is recognized in one of two different ways depending on the grant. Cost reimbursement grants require us to submit proof of costs incurred that are invoiced by us to the government agency, which then pays the invoice. In this case, grant revenue is recognized during the period that the costs were incurred according to the terms of the government grant. Fixed cost grants require no proof of costs at the time of invoicing, but proof is required for audit purposes and grant revenue is recognized during the period that the costs were incurred according to the terms of the government grant. The grant revenue under these fixed costs grants is recognized using a percentage-of-completion method, which uses assumptions and estimates. These assumptions and estimates are developed in coordination with the principal investigator performing the work under the government fixed-cost grants to determine key milestones, expenses incurred, and deliverables to perform a percentage-of-completion analysis to ensure that revenue is appropriately recognized. Critical estimates involved in this process include total costs incurred and anticipated to be incurred during the remaining life of the grant.

Government contract revenue is recognized as allowable research and development expenses are incurred during the period and according to the terms of the government contract.

The Company recognizes revenue related to the funds received from the State of New York under the sponsored research agreement with the Roswell Park Cancer Institute (RPCI) in accordance with SFAS 116. The principles of SFAS 116 result in the recognition of revenue as allowable costs are incurred. The Company recognizes revenue on research laboratory services and the subsequent use of related equipment. The amount paid as a payment toward future services related to the equipment is recognized as a prepaid asset and will be recognized as revenue ratably over the useful life of the asset and the prepaid asset is recognized as expense.

Commercial development revenues are recognized when the service or development is delivered.

M. Deferred Revenue – Deferred revenue results when payment is received in advance of revenue being earned. The Company makes a determination as to whether the revenue has been earned by applying a percentage-of-completion analysis to compute the need to recognize deferred revenue. The percentage of completion method is based upon (1) the total income projected for the project at the time of completion and (2) the expenses incurred to date. The percentage-of-completion can be measured using the proportion of costs incurred versus the total estimated cost to complete the contract.

The Company received \$2,000,000 in funds from the State of New York through the Roswell Park Cancer Institute (“RPCI”) during the second quarter of 2007. The Company received an additional \$1,000,000 in funds from the State of New York through the RPCI during the second quarter of 2008. The Company is recognizing this revenue over the terms and conditions of the sponsored research agreement. The Company recognizes revenue on research laboratory services and the purchase and subsequent use of related equipment. The amount paid as a payment toward future services related to the equipment is recognized as a prepaid asset and will be recognized as revenue ratably over the useful life of the asset. For the three-months ended March 31, 2009, the Company recognized \$42,834 in deferred revenue from an ongoing government grant and recognized \$24,660 as revenue resulting in a balance of deferred revenue of \$2,383,486 at March 31, 2009. At December 31, 2008, the balance in deferred revenue was \$2,365,312.

N. Research and Development - Research and development expenses consist primarily of costs associated with salaries and related expenses for personnel, costs of materials used in R&D, costs of facilities and costs incurred in connection with third-party collaboration efforts. Expenditures relating to research and development are expensed as incurred.

O.

Equity Incentive Plan - On May 26, 2006, the Company's Board of Directors adopted the 2006 Equity Incentive Plan ("Plan") to attract and retain persons eligible to participate in the Plan, motivate participants to achieve long-term Company goals, and further align participants' interests with those of the Company's other stockholders. The Plan expires on May 26, 2016 and the aggregate number of shares of stock which may be delivered under the Plan shall not exceed 2,000,000 shares. On February 14, 2007, these 2,000,000 shares were registered with the SEC by filing a Form S-8 registration statement. On April 29, 2008, the stockholders of the Company approved an amendment and restatement of the Plan (the "Amended Plan"). The Amended Plan increases the number of shares available for issuance by an additional 2,000,000 shares, clarifies other aspects of the Plan, and contains updates that reflect changes and developments in federal tax laws. As of March 31, 2009 there were 1,702,721 stock options and 235,000 shares granted under the Amended Plan and 21,366 forfeited leaving 2,083,645 shares of stock to be awarded under the Amended Plan.

P. Stock-Based Compensation - The FASB issued SFAS No. 123(R) (revised December 2004), Share Based Payment, which is a revision of SFAS No. 123 Accounting for Stock-Based Compensation. SFAS 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the statement of operations based on their fair values. The Company values employee stock-based compensation under the provisions of SFAS 123(R) and related interpretations.

The fair value of each stock option granted is estimated on the grant date. The Black Scholes model is used for standard stock options, but if market conditions are present within the stock options, the Company utilizes Monte Carlo simulation to value the stock options. The assumptions used to calculate the fair value of options granted are evaluated and revised, as necessary, to reflect the Company's experience. The Company uses a risk-free rate published by the St. Louis Federal Reserve at the time of the option grant, assumes a forfeiture rate of zero, assumes an expected dividend yield rate of zero based on the Company's intent not to issue a dividend in the foreseeable future, uses an expected life based on the safe harbor method, and computes an expected volatility based on similar high-growth, publicly-traded, biotechnology companies. In 2008, the Company began to include the use of its own stock in the volatility calculation and is layering in the volatility of the stock of the Company with that of comparable companies since there is not adequate trading history to rely solely on the volatility of the Company. The Company recognizes the fair value of share-based compensation in net income on a straight-line basis over the requisite service period.

During the three-months ended March 31, 2009, the Company granted no stock options. The Company recognized a total of \$101,563 in expense related to previously granted options for the three-months ended March 31, 2009. The Company also recaptured \$37,878 of previously recognized expense due to the forfeiture of non-vested stock options during the three-months ended March 31, 2009.

The assumptions used to value these option and grants using the Black-Scholes option valuation model are as follows:

|                         | 2009 | 2008         |
|-------------------------|------|--------------|
|                         | YTD  |              |
| Risk-free interest rate | n/a  | 2.43-3.58%   |
| Expected dividend yield | n/a  | 0%           |
| Expected life           | n/a  | 5-6 years    |
| Expected volatility     | n/a  | 64.25-82.47% |

The weighted average, estimated grant date fair values of stock options granted during the three-months ended March 31, 2009 and March 31, 2008 were \$0 and \$2.86, respectively.

The following tables summarize the stock option activity for the three-months ended March 31, 2009 and March 31, 2008, respectively.

|                                | Shares    | Weighted<br>Average<br>Exercise<br>Price per<br>Share | Weighted<br>Average<br>Remaining<br>Contractual<br>Term (in Years) |
|--------------------------------|-----------|---|--|
| Outstanding, December 31, 2008 | 1,948,874 | \$ 6.17   |  |
| Granted                        | -         | n/a   |  |
| Exercised                      | 10,132    | \$ 0.67   |  |
| Forfeited, Canceled            | 3,313     | \$ 4.00   |  |
| Outstanding, March 31, 2009    | 1,935,429 | \$ 6.20   | 8.29   |
| Exercisable, March 31, 2009    | 1,664,779 | \$ 5.60   | 8.24   |

  

|                                | Shares    | Weighted<br>Average<br>Exercise<br>Price per<br>Share | Weighted<br>Average<br>Remaining<br>Contractual<br>Term (in Years) |
|--------------------------------|-----------|---|--|
| Outstanding, December 31, 2007 | 1,011,740 | \$ 7.29   |  |
| Granted                        | 719,948   | \$ 4.89   |  |
| Exercised                      | 11,099    | \$ 1.87   |  |
| Forfeited, Canceled            | -         | n/a   |  |
| Outstanding, March 31, 2008    | 1,720,589 | \$ 6.32   | 9.09   |
| Exercisable, March 31, 2008    | 1,256,747 | \$ 5.75   | 9.13   |

The Company also recognized \$202,083 and \$521,000 in expense for shares issued under the Plan during the three-months ended March 31, 2009 and March 31, 2008, respectively. The Company issued a total of 80,000 shares and 105,000 during the three months ended March 31, 2009 and March 31, 2008, respectively. In addition, the Company recognized \$8,333 and \$17,722 in compensation expense related to the amortization of restricted shares during the three-months ended March 31, 2009 and March 31, 2008, respectively.

Q. Net Loss Per Share - Basic and diluted net loss per share has been computed using the weighted-average number of shares of common stock outstanding during the period.

The following table presents the calculation of basic and diluted net loss per share for the three-months ended March 31, 2009 and 2008:

|   | Quarter Ended<br>March 31,<br>2009 | Quarter Ended<br>March 31,<br>2008 |
|---|------------------------------------|------------------------------------|
| Net loss available to common stockholders                                       | \$ (3,227,908)                     | \$ (4,286,337)                     |
| Net loss per share, basic and diluted   | \$ (0.24)                          | \$ (0.33)                          |
| Weighted-average shares used in computing net loss per share, basic and diluted | 13,607,114                         | 13,143,686                         |





The Company has excluded all outstanding preferred shares, warrants and options from the calculation of diluted net loss per share because all such securities are antidilutive for all applicable periods presented.

The total number of shares excluded from the calculations of diluted net loss per share, prior to application of the treasury stock method for preferred shares, was 8,084,185 and 3,524,687 for the three-months ended March 31, 2009 and 2008, respectively. Such securities, had they been dilutive, would have been included in the computation of diluted earnings per share.

The total number of shares excluded from the calculations of diluted net loss per share, prior to application of the treasury stock method for warrants, was 9,201,874 and 3,453,268 for the three-months ended March 31, 2009 and 2008, respectively. Such securities, had they been dilutive, would have been included in the computation of diluted earnings per share.

The total number of shares excluded from the calculations of diluted net loss per share, prior to the application of the treasury stock method for options, was 1,935,429 and 1,720,589 for the three-months ended March 31, 2009 and 2008, respectively. Such securities, had they been dilutive, would have been included in the computation of diluted earnings per share.

In summary, the total number of shares excluded from the calculations of diluted net loss per share, prior to application of the treasury stock method for all dilutive securities, was 19,221,488 and 8,698,544 for the three-months ended March 31, 2009 and 2008, respectively. Such securities, had they been dilutive, would have been included in the computation of diluted earnings per share.

R. Concentrations of Risk - Grant and contract revenue was comprised wholly from grants and contracts issued by the federal government and accounted for 100.0% and 82.3% of total revenue for the three-months ended March 31, 2009 and 2008, respectively. Although the Company anticipates ongoing federal grant and contract revenue, there is no guarantee that this revenue stream will continue in the future.

Financial instruments that potentially subject us to a significant concentration of credit risk consist primarily of cash and cash equivalents and securities available-for-sale. The Company maintains deposits in federally insured institutions in excess of federally insured limits. The Company does not believe it is exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held. Additionally, the Company has established guidelines regarding diversification of its investment portfolio and maturities of investments, which are designed to meet safety and liquidity.

S. Foreign Currency Exchange Rate Risk - The Company has entered into a manufacturing agreement to produce one of its drug compounds and into an agreement for assay development and validation with foreign third parties and is required to make payments in the foreign currency. As a result, the Company's financial results could be affected by changes in foreign currency exchange rates. Currently, the Company's exposure primarily exists with the Euro and the British Pound, or GBP. As of March 31, 2009, the Company is obligated to make payments under the agreements of 784,102 Euros and 88,673 GBP. As of March 31, 2009, the Company has not purchased any forward contracts for Euros or GBP and, therefore, at March 31, 2009, had foreign currency commitments of \$1,039,641 for Euros and \$126,714 for GBP given prevailing currency exchange spot rates..

T. Comprehensive Income/(Loss) - The Company applies Statement of Financial Accounting Standards (SFAS) No. 130, "Reporting Comprehensive Income." SFAS No. 130 requires disclosure of all components of comprehensive income on an annual and interim basis. Comprehensive income is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources.

Note 3. Stock Transactions

On January 1, 2008, the Company issued 100,000 options to a new employee and 60,000 options to a key consultant of the Company. The options vest over a period from one to three years and allow for the purchase of 160,000 shares of common stock at a price of \$8.00 per share. These options expire on December 31, 2017.

On January 4, 2008, the Company issued 20,000 restricted shares of common stock to a new employee. These shares vest over a three-year period with 25% vested on issuance and 25% vesting on the anniversary date of the agreement for each of the next three years.

On February 4, 2008, the Company issued options to purchase 503,250 shares of common stock under non-qualified stock option agreements to the executive management team under the 2007 Executive Compensation Plan. These options were originally expensed in 2007 at the December 31, 2007 closing price of \$8.80. These options vest immediately, contain an exercise price of \$4.00 per share, and expire on February 4, 2018. The Company also issued options to purchase 34,398 shares of common stock to various employees under non-qualified stock option agreements under an employee bonus program. These options vest immediately, contain an exercise price of \$4.00 per share, and expire on February 3, 2018. Finally, the Company issued stock options to various key employees under non-qualified stock option agreements. These options have up to three years vesting. These options allow for the purchase of 21,300 shares of common stock at an exercise price of \$4.00 per share and expire on February 3, 2018.

On March 12, 2008, the Company issued 1,000 stock options to a consultant under a non-qualified stock option agreement. These options vest immediately and allow for the purchase of 1,000 shares of common stock at an exercise price of \$4.81 per share. These options expire on March 11, 2018.

On March 14, 2008, the Company issued 100,000 unrestricted shares of common stock to a key consultant.

On April 8, 2008, the Company issued 40,000 stock options to three consultants under non-qualified stock option agreements. These options vest immediately and allow for the purchase of 40,000 shares of common stock at an exercise price of \$4.18 per share. These options expire on April 7, 2018. On April 8, 2008, the Company also issued 25,000 restricted shares of common stock. These shares vest over a three-month period with 40% vested on issuance and 60% vesting three months from the date of the agreement.

On April 29, 2008, the Company issued 140,000 stock options to four independent members of the Board of Directors of the Company under non-qualified stock option agreements. These options vest immediately and allow for the purchase of 140,000 shares of common stock at an exercise price of \$5.33 per share. These options expire on April 28, 2018.

On May 7, 2008, the Company issued 14,976 stock options to various employees under non-qualified stock option agreements under an employee bonus program. These options vest immediately and allow for the purchase of 14,976 shares of common stock at an exercise price of \$5.28 per share. These options expire on May 6, 2018.

On July 15, 2008, the Company issued 28,456 stock options to various employees under non-qualified stock option agreements under an employee bonus program. These options vest immediately and allow for the purchase of 28,456 shares of common stock at an exercise price of \$3.98 per share. These options expire on July 14, 2018.

On September 22 2008, the Company issued 35,000 stock options to a new employee under non-qualified stock option agreements. These options vest over a three-year period and allow for the purchase of 35,000 shares of common stock at an exercise price of \$4.69 per share. These options expire on September 21, 2018.

On November 14, 2008, the Company issued 19,341 stock options to various employees under non-qualified stock option agreements under an employee bonus program. These options vest immediately and allow for the purchase of 19,341 shares of common stock at an exercise price of \$3.10 per share. These options expire on November 13, 2018.

On February 2, 2009, the Company issued 75,000 restricted shares of common stock designees of the placement agents in the Series D Preferred Stock offering.

On February 13, 2009, March 20, 2009, and March 27, 2009, the Company entered into Securities Purchase Agreements (the "Purchase Agreements") with various accredited investors (the "Purchasers"), pursuant to which the Company agreed to sell to the Purchasers an aggregate of 542.84 shares of Series D Convertible Preferred Stock, with a par value of \$0.005 per share and a stated value of \$10,000 per share ("Series D Preferred"), and Common Stock Purchase Warrants (the "Warrants") to purchase an aggregate of 3,877,386 shares of the Company's Common Stock, par value \$0.005 per share (the "Series D Private Placement"). The Warrants have a seven-year term and an exercise price of \$1.60. Each share of Series D Preferred is convertible into approximately 7,143 shares of Common Stock, subject to the adjustment as described below.

The aggregate purchase price paid by the Purchasers for the Series D Preferred and the Warrants was approximately \$5,428,307 (representing \$10,000 for each Series D Preferred together with a Warrant). After related fees and expenses, the Company received net proceeds of approximately \$4,460,000. The Company intends to use the proceeds for working capital purposes.

In consideration for its services as exclusive placement agent, Garden State Securities, Inc. (“GSS”), received cash compensation and Warrants to purchase an aggregate of approximately 387,736 shares of Common Stock. In the aggregate, Series D Preferred and Warrants issued in the transaction are convertible into, and exercisable for, approximately 8,142,508 shares of Common Stock. Each share of Series D Preferred is convertible into a number of shares of Common Stock equal to the stated value of the share (\$10,000), divided by \$1.40, subject to adjustment as discussed below (the “Conversion Price”).

The Series D Preferred ranks junior to the Company’s Series B Convertible Preferred Stock (“Series B Preferred”) and senior to all shares of Common Stock and other capital stock of the Company.

If the Company does not meet certain milestones, the Conversion Price will, unless the closing price of the Common Stock is greater than \$3.69 on the date the Milestone is missed, be reduced to 80% of the Conversion Price in effect on that date (the “Milestone Adjustment”). In addition to the Milestone Adjustment, on August 13, 2009 (the “Initial Adjustment Date”), the Conversion Price shall be reduced to 95% of the then Conversion Price, and on each three month anniversary of the Initial Adjustment Date, the then Conversion Price shall be reduced by \$0.05 (subject to adjustment) until maturity. The Conversion Price is also subject to proportional adjustment in the event of any stock split, stock dividend, reclassification or similar event with respect to the Common Stock and to anti-dilution adjustment in the event of any Dilutive Issuance as defined in the Certificate of Designation.

If the closing price for each of any 20 consecutive trading days after the effective date of the initial registration statement filed pursuant to the Registration Rights Agreement exceeds 300% of the then effective Conversion Price and various other equity conditions are satisfied, the Series D Preferred will automatically convert into shares of Common Stock.

At any time after February 13, 2012, the Company may, if various equity conditions are satisfied, elect either to redeem any outstanding Series D Preferred in cash or to convert any outstanding Series D Preferred into shares of Common Stock at the conversion rate then in effect.

If the Company receives any cash funds after February 13, 2009 from fees, royalties or revenues as a result of the license of any of its intellectual property (the “IP Proceeds”), cash funds from development grants from any government agency for the development of anti-cancer applications of any of the Company’s curaxin compounds or anti-cancer or biodefense applications for the Company’s CBLB502 compound (the “Governmental Grant Proceeds”) or allocates cash proceeds to its Escrow Account (the “Company Allocation”), then the Company must deposit 40% of the IP Proceeds, 20% of the Governmental Grant Proceeds and the Company Allocation into an escrow account (the “Sinking Fund”). At any time after the later of the Effective Date and the six-month anniversary of the initial contribution by the Company to the Sinking Fund, but no more than once in every six-month period, the Company will be required to use the funds then in the Sinking Fund to redeem outstanding shares of Series D Preferred, from the holders on a pro rata basis, at a premium of 15% to the stated value through February 13, 2010, and 20% thereafter.

Immediately after the completion of the transactions contemplated by the Purchase Agreements, the conversion price of the Company’s Series B Preferred was adjusted, pursuant to weighted-average anti-dilution provisions, to \$4.67, causing the conversion rate of Series B Preferred into Common Stock to change to approximately 1-to-1.49893. In addition, the exercise prices of the Company’s Series B Warrants and Series C Warrants were adjusted, pursuant to weighted-average anti-dilution provisions, to \$6.79 and \$7.20, respectively, from the original exercise prices of

\$10.36 and \$11.00. Certain other warrants issued prior to the Company's initial public offering were also adjusted pursuant to anti-dilution provisions contained in those warrants such that their per share exercise price reduced from \$2.00 to \$1.48. In addition to the adjustment to the exercise prices of the Series B Warrants and Series C Warrants, the aggregate number of shares issuable upon exercise of the Series B Warrants and the Series C Warrants increased to 3,609,261 and 408,032, from 2,365,528 and 267,074, respectively. For certain warrants issued prior to the Company's initial public offering, the aggregate number of shares of Common Stock issuable increased from 281,042 to 379,792.

The fair value of the 4,265,122 warrants issued with the Series D Private Placement was \$3,016,834 and was computed using the Black-Scholes option pricing model using the following assumptions:

|  | Warrants<br>Issued on<br>February 13,<br>2009 | Warrants<br>Issued on<br>March 20,<br>2009 | Warrants<br>Issued on<br>March 27,<br>2009 |
|--|---|--|--|
| Stock price (prior day close)  | \$ 2.95                                       | \$ 1.41                                    | \$ 2.44                                    |
| Exercise price   | \$ 2.60                                       | \$ 1.60                                    | \$ 1.60                                    |
| Term in years  | 2.00  | 2.00                                       | 2.00                                       |
| Volatility   | 110.14%                                       | 108.87%                                    | 111.57%                                    |
| Annual rate of quarterly dividends   | -   | -  | -  |
| Discount rate- bond equivalent yield   | 0.89%   | 0.87%                                      | 0.90%                                      |
| Discount due to limitations on<br>marketability, liquidity and other credit<br>factors | 40%   | 40%  | 40%  |

The Company recorded a 40% reduction in the calculated value as shown above due to the restrictions on marketability, liquidity and other credit factors. As these shares become registered securities or otherwise freely tradeable, this reduction will be adjusted as applied to fair market value calculations.

The exercise price of the warrants issued on February 13, 2009 was adjusted, pursuant to weighted-average anti-dilution provisions, to \$1.60 as a result of the March 20, 2009 tranche of the Series D Private Placement.

The value assigned to the warrants could not exceed the value of the gross proceeds at the issuance date of each tranche of the offering. As such, the value assigned to the warrants on the March 27, 2009 tranche of the Series D Private Placement was reduced to \$789,000 which represents the gross proceeds from that tranche of the offering.

In addition, since the convertible preferred stock is convertible into shares of common stock, an embedded beneficial conversion feature was recorded as a discount to additional paid-in-capital in accordance with EITF No. 00-27, "Application of Issue No. 98-5 to Certain Convertible Instruments." However, the beneficial conversion feature is considered a deemed dividend, and since the Company has an accumulated deficit, there was no effect on the statement of stockholders' equity.

For the three-months ending March 31, 2009, 344,858 Series B Preferred Shares were converted into 450,140 shares of common stock. At March 31, 2009, there were 2,816,116 outstanding Series B Preferred for which \$40,506 in dividends had been accrued.

#### Note 4. Commitments and Contingencies

The Company has entered into various agreements with third parties and certain related parties in connection with the research and development activities of its existing product candidates as well as discovery efforts on potential new product candidates. These agreements include costs for research and development and license agreements that represent the Company's fixed obligations payable to sponsor research and minimum royalty payments for licensed patents. These amounts do not include any additional amounts that the Company may be required to pay under its license agreements upon the achievement of scientific, regulatory and commercial milestones that may become payable depending on the progress of scientific development and regulatory approvals, including milestones such as the submission of an investigational new drug application to the FDA and the first commercial sale of the Company's

products in various countries. These agreements include costs related to manufacturing, clinical trials and preclinical studies performed by third parties. In addition, as described in Note 3, the Company may be required to deposit funds in the Sinking Fund if it receives certain sublicense income.

The Company is also party to three agreements that require it to make milestone payments, royalties on net sales of the Company's products and payments on sublicense income received by the Company. As of March 31, 2009, \$350,000 in milestone payments have been made under one of these agreements.



From time to time, the Company may have certain contingent liabilities that arise in the ordinary course of business. The Company accrues for liabilities when it is probable that future expenditures will be made and such expenditures can be reasonably estimated. For all periods presented, the Company is not a party to any pending material litigation or other material legal proceedings. From time to time in the ordinary course of business, the Company may be subject to claims brought against it. It is not possible to state the ultimate liability, if any, in these matters

The Company currently has operating lease commitments in place for facilities in Buffalo, New York and Chicago, Illinois as well as office equipment. The Company recognizes rent expense on a straight-line basis over the term of the related operating leases. The operating lease expenses recognized were \$86,719 and \$83,045 for the three-months ended March 31, 2009 and 2008, respectively.

Annual future minimum lease payments under present lease commitments are as follows.

|      |                          | Operating<br>Leases |
|------|--------------------------|---------------------|
| 2009 | Remaining Three Quarters | \$ 270,907          |
| 2010 |                          | 343,656             |
| 2011 |                          | 311,803             |
| 2012 |                          | 144,375             |
| 2013 |                          | -                   |
|      |                          | \$ 1,070,741        |

The Company has entered into stock option agreements with key employees, board members and consultants with exercise prices ranging from \$0.66 to \$17.00. These awards were approved by the Company's Board of Directors. The options expire ten years from the date of grant except for 18,000 options that expire on December 31, 2012, subject to the terms applicable in the agreement.

The following tables summarize the stock option activity for the three-months ended March 31, 2009 and March 31, 2008:

|                                | Shares    | Weighted Average<br>Exercise Price Per<br>Share |
|--------------------------------|-----------|---|
| Outstanding, December 31, 2008 | 1,948,874 | \$ 6.17   |
| Granted                        | -         | n/a   |
| Exercised                      | 10,132    | \$ 0.67   |
| Forfeited, Canceled            | 3,313     | \$ 4.00   |
| Outstanding, March 31, 2009    | 1,935,429 | \$ 6.20   |

|                                | Shares    | Weighted Average<br>Exercise Price Per<br>Share |
|--------------------------------|-----------|---|
| Outstanding, December 31, 2007 | 1,011,740 | \$ 7.29   |
| Granted                        | 719,948   | \$ 4.89   |
| Exercised                      | 11,099    | \$ 1.87   |

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|                             |              |      |
|-----------------------------|--------------|------|
| Forfeited, Canceled         | -            | n/a  |
| Outstanding, March 31, 2008 | 1,720,589 \$ | 6.32 |

The Company has entered into warrant agreements with strategic partners, consultants and investors with exercise prices ranging from \$1.13 to \$10.00. These awards were approved by the Company's Board of Directors. The warrants expire between five and seven years from the date of grant, subject to the terms applicable in the agreement. A list of the total warrants awarded and exercised appears below:

|                                | Warrants  | Weighted Average<br>Exercise Price Per<br>Share |
|--------------------------------|-----------|---|
| Outstanding, December 31, 2008 | 3,453,268 | \$ 8.86   |
| Granted                        | 4,265,122 | \$ 1.60   |
| Exercise Price Adjustment      |           | \$ (3.07)                                       |
| Exercised                      | -         | n/a   |
| Forfeited, Canceled            | -         | n/a   |
| Outstanding, March 31, 2009    | 7,718,390 | \$ 3.59   |

  

|                                | Shares    | Weighted Average<br>Exercise Price Per<br>Share |
|--------------------------------|-----------|---|
| Outstanding, December 31, 2007 | 3,453,268 | \$ 8.86   |
| Granted                        | -         | n/a   |
| Exercised                      | -         | n/a   |
| Forfeited, Canceled            | -         | n/a   |
| Outstanding, March 31, 2008    | 3,453,268 | \$ 8.86   |

Immediately after the completion of the Series D Private Placement, pursuant to weighted-average anti-dilution provisions, the exercise prices of the Company's Series B Warrants and Series C Warrants were adjusted, pursuant to weighted-average anti-dilution provisions, to \$6.79 and \$7.20, respectively, from the original exercise prices of \$10.36 and \$11.00. Certain other warrants issued prior to the Company's initial public offering were also adjusted pursuant to anti-dilution provisions contained in those warrants such that their per share exercise price reduced from \$2.00 to \$1.48. In addition to the adjustment to the exercise prices of the Series B Warrants, Series C Warrants, the aggregate number of shares issuable upon exercise of the Series B Warrants and the Series C Warrants increased to 3,609,261 and 408,032, from 2,365,528 and 267,074, respectively. For certain warrants issued prior to the Company's initial public offering, the aggregate number of shares of Common Stock issuable increased from 281,042 to 379,792.

The Company has entered into employment agreements with three key executives who, if terminated by the Company without cause as described in these agreements, would be entitled to severance pay.

The Company is not currently a party to any pending legal actions. From time to time in the ordinary course of business, the Company may be subject to claims brought against it. It is not possible to state the ultimate liability, if any, in these matters.

#### Note 5. Subsequent Events

No material subsequent events have occurred since the balance sheet date of March 31, 2009.



Item 2: Management's Discussion and Analysis of Financial Condition and Results of Operations

This management's discussion and analysis of financial condition and results of operations and other portions of this filing contain forward-looking information that involves risks and uncertainties. Our actual results could differ materially from those anticipated by the forward-looking information. Factors that may cause such differences include, but are not limited to, availability and cost of financial resources, results of our research and development, efforts and clinical trials, product demand, market acceptance and other factors discussed below and in the Company's other SEC filings, including its Annual Report on Form 10-K for the year ended December 31, 2008. This management's discussion and analysis of financial condition and results of operations should be read in conjunction with our financial statements and the related notes included elsewhere in this filing and in our Annual Report on Form 10-K for the year ended December 31, 2008.

OVERVIEW

CBLI was incorporated in Delaware and commenced business operations in June 2003 as a development-stage, biotechnology company, with a very specific and targeted focus on discovery and development of drugs that control cell death. We have devoted substantially all of our resources to the identification, development and commercialization of new types of drugs for protection of normal tissues from exposure to radiation and other stresses, such as toxic chemicals and cancer treatments. CBLI's pipeline includes products from two primary families of compounds: protectans and curaxins. We are developing protectans as drug candidates that protect healthy tissues from acute stresses such as radiation, chemotherapy and ischemia (pathologies developed as a result of blocking blood flow to a part of the body). Curaxins are being developed as anticancer agents that could act as mono-therapy drugs or in combination with other existing anticancer therapies.

On July 20, 2006, we sold 1,700,000 shares of common stock, par value \$0.005 per share, in our initial public offering at a per share price of \$6.00. After our initial public offering, our common stock was listed on the NASDAQ Capital Market under the symbol "CBLI" and on the Boston Stock Exchange under the symbol "CFB." Our trading symbol on the Boston Stock Exchange was later changed to "CBLI." On August 28, 2007, trading of our common stock transferred from the NASDAQ Capital Market to the NASDAQ Global Market. In September 2007, we ceased our listing on the Boston Stock Exchange. On November 28, 2008, trading of our common stock transferred from the NASDAQ Global Market back to the NASDAQ Capital Market. The Company believes that it meets current listing requirements for the NASDAQ Capital Market as set forth by NASDAQ.

Technology

Our development efforts are based on discoveries made in connection with the investigation of the cell-level process known as apoptosis. Apoptosis is a highly specific and tightly regulated form of cell death that can occur in response to external events such as exposure to radiation, toxic chemicals or internal stresses. Apoptosis is a major determinant of tissue damage caused by a variety of medical conditions including cerebral stroke, heart attack and acute renal failure. Conversely, apoptosis is also an important protective mechanism that allows the body to shed itself of defective cells, which otherwise can cause cancerous growth.

Research has demonstrated that apoptosis is sometimes suppressed naturally. For example, most cancer cells develop resistance to apoptotic death caused by drugs or natural defenses of the human body. Our research is geared towards identifying the means by which apoptosis can be affected and manipulated depending on the need.

If the need is to protect healthy tissues against an external event such as exposure to radiation, we focus our research efforts on attempting to temporarily and reversibly suppress apoptosis in those healthy tissues, thereby imitating the apoptotic-resistant tendencies displayed by cancer cells. A drug with this effect would also be useful in ameliorating

the toxicities of anticancer drugs and radiation that cause collateral damage to healthy tissues during cancer treatment. Because the severe toxicities of anticancer drugs and radiation often limit their dosage in cancer patients, an apoptosis suppressant drug may enable a more aggressive treatment regimen using anticancer drugs and radiation and thereby increase their effectiveness.

On the other hand, if the need is to destroy cancerous cells, we focus our research efforts on restoring apoptotic mechanisms that are suppressed in tumors, so that those cancerous cells will once again become vulnerable to apoptotic death. In this regard, we believe that our drug candidates could have significant potential for improving, and becoming vital to, the treatment of cancer patients.

Through our research and development, or R&D, and our strategic partnerships, we have established a technological foundation for the development of new pharmaceuticals and their rapid preclinical evaluation.

We have acquired rights to develop and commercialize the following prospective drugs:

- Protectans - modified factors of microbes that protect cells from apoptosis, and which therefore have a broad spectrum of potential applications including non-medical applications such as protection from exposure to radiation, whether as a result of military or terrorist action or as a result of a nuclear accident, as well as medical applications such as reducing cancer treatment toxicities.
- Curaxins - small molecules designed to kill tumor cells by simultaneously targeting multiple regulators of apoptosis. Initial test results indicate that curaxins can be effective against a number of malignancies, including hormone-refractory prostate cancer, renal cell carcinoma, or RCC (a highly fatal form of kidney cancer) and soft-tissue sarcoma.

In the area of radiation protection, we have achieved high levels of protection in animal models. With respect to cancer treatment, the biology of cancer is such that there is no single drug that can be successfully used to treat 100% or even 50% of all cancer patients. This means that there likely will be a need for additional anticancer drugs for each type of cancer.

These drug candidates demonstrate the value of our scientific foundation. Based on the expedited approval process currently available for non-medical applications such as protection from exposure to radiation, our most advanced drug candidate, Protectan CBLB502, may be approved for such applications within 21 months. Another drug candidate, Curaxin CBLC102, demonstrated efficacy and safety in a Phase IIa clinical trial concluded in late 2008.

## RESEARCH AND DEVELOPMENT

We are highly dependent on the success of our research and development efforts and, ultimately, upon regulatory approval and market acceptance of our products under development.

There are significant risks and uncertainties inherent in the preclinical and clinical studies associated with our research and development projects. As a result, the costs to complete such projects, as well as the period in which net cash outflows from such programs are expected to be incurred, may not be reasonably estimable. From our inception to March 31, 2009, we spent \$45,759,603 on research and development.

Our ability to complete our research and development on schedule is, however, subject to a number of risks and uncertainties. Factors affecting our research and development include, but are not limited to:

- the number and outcome of clinical studies we are planning to conduct; for example, our research and development expenses may increase based on the number of late-stage clinical studies that we may be required to conduct;
- the performance of our research and development collaborators; if any research collaborator fails to commit sufficient resources, our preclinical or clinical development programs related to this collaboration could be delayed or terminated;
- the ability to maintain and/or obtain licenses; we may have to develop alternatives to avoid infringing upon the patents of others, potentially causing increased costs and delays in product development;

- the number of products entering development from late-stage research; there is no guarantee that internal research efforts will succeed in generating sufficient data for us to make a positive development decision or that an external candidate will be available on terms acceptable to us, and some promising candidates may not yield sufficiently positive pre-clinical results to meet our stringent development criteria;



- the number of new grants and contracts awarded in the future; if the availability of research grants and contracts were curtailed, our ability to fund future research and development and implement technological improvements would be diminished, which would negatively impact our ability to fund research and development efforts;
  - in-licensing activities, including the timing and amount of related development funding or milestone payments; for example, we may enter into agreements requiring us to pay a significant up-front fee for the purchase of in-process research and development that we may record as research and development expense; or
- future levels of revenue; research and development as a percentage of future potential revenues can fluctuate with the changes in future levels of revenue and lower revenues can lead to less spending on research and development efforts.

In addition, we have sustained losses from operations in each fiscal year since our inception in June 2003, and we may exhaust our financial resources and be unable to complete the development of our products due to the substantial investment in research and development, that will be required for the next several years. We expect to spend substantial additional sums on the continued research and development of proprietary products and technologies with no certainty that losses will not increase or that we will ever become profitable as a result of these expenditures.

Many of our projects are in the early stages of drug development which carry their own set of risks. Projects that appear promising in the early phases of development may fail to reach the market for several reasons including:

- pre-clinical or clinical study results that may show the product to be less effective than desired (e.g., the study failed to meet its primary objectives) or to have harmful or problematic side effects;
- failure to receive the necessary regulatory approvals or a delay in receiving such approvals. Among other things, such delays may be caused by slow enrollment in clinical studies, length of time to achieve study endpoints, additional time requirements for data analysis or a New Drug Application/Biologic License Application, preparation, discussions with the Food and Drug Administration (or FDA), an FDA request for additional pre-clinical or clinical data or unexpected safety or manufacturing issues;
- manufacturing costs, pricing or reimbursement issues, or other factors that make the product not economical; and
- the proprietary rights of others and their competing products and technologies that may prevent the product from being commercialized.

The testing, marketing and manufacturing of any product for use in the United States will require approval from the FDA. We cannot predict with any certainty the amount of time necessary to obtain such FDA approval and whether any such approval will ultimately be granted. Preclinical and clinical trials may reveal that one or more products are ineffective or unsafe, in which event further development of such products could be seriously delayed or terminated. Moreover, obtaining approval for certain products may require testing on human subjects of substances whose effects on humans are not fully understood or documented. Delays in obtaining FDA or any other necessary regulatory approvals of any proposed product and failure to receive such approvals would have an adverse effect on the product's potential commercial success and on our business, prospects, financial condition and results of operations. In addition, it is possible that a product may be found to be ineffective or unsafe due to conditions or facts that arise after development has been completed and regulatory approvals have been obtained. In this event, we may be required to withdraw such product from the market. To the extent that our success will depend on any regulatory approvals from government authorities outside of the United States that perform roles similar to that of the FDA, uncertainties similar to those stated above will also exist.

## STRATEGIES AND OBJECTIVES

Our primary objective is to become a leading developer of drugs for the protection of human tissues against radiation and other stresses and for cancer treatment. Key elements of our strategy include:

- Aggressively working towards the commercialization of Protectan CBLB502. Our most advanced drug candidate, Protectan CBLB502, offers the potential to protect normal tissues against exposure to radiation. Because of the potential military and defense implications of such a drug, the normally lengthy FDA approval process for these non-medical applications is substantially abbreviated resulting in a large cost savings to us. We expect to complete development of Protectan CBLB502 for these non-medical applications by the end of 2010.

- Leveraging our relationship with leading research and clinical development institutions. The Cleveland Clinic Foundation, one of the top research medical facilities in the world, is one of our co-founders. In addition to providing us with drug leads and technologies, the Cleveland Clinic will share valuable expertise with us as clinical trials are performed on our drug candidates. In January 2007, we entered into a strategic research partnership with Roswell Park Cancer Institute, or RPCI, in Buffalo, New York. This partnership will enhance the speed and efficiency of our clinical research and provide us with access to the state-of-the-art clinical development facilities of a globally recognized cancer research center.
- Utilizing governmental initiatives to target our markets. Our focus on drug candidates such as Protectan CBLB502, which has applications that have been deemed useful for military and defense purposes, provides us with a built-in market for our drug candidates. This enables us to invest less in costly retail and marketing resources. In an effort to improve our responsiveness to military and defense needs, we have established a collaborative relationship with the Armed Forces Radiobiology Research Institute.
- Utilizing and developing other strategic relationships. We have collaborative relationships with other leading organizations that enhance our drug development and marketing efforts. For example, one of our founders, with whom we maintain a strategic partnership, is ChemBridge Corporation. Known for its medicinal chemistry expertise and synthetic capabilities, ChemBridge provides valuable resources to our drug development research.

## PRODUCTS IN DEVELOPMENT

### Protectans

We are exploring a new natural source of factors that suppress the programmed cell death (apoptosis) response in human cells, which can be rapidly developed into therapeutic products. These inhibitors are anti-apoptotic factors developed by microorganisms of human microflora throughout millions of years of co-evolution with mammalian host. We are using the same strategy that was applied for the discovery of antibiotics, one of the biggest medical achievements of the 20th century. We have established a technological process for screening of such factors, named protectans, and their rapid preclinical evaluation. These inhibitors can be used as protection from cancer treatment toxicities and antidotes against injuries induced by radiation and other stresses associated with severe pathologies (i.e., heart attack or stroke).

Fourteen sets of patent applications have been filed over the past five years around various aspects and qualities of the protectan family of compounds. The first of these patents was granted in 2008 by the nine members of the Eurasian Patent Organization and two additional countries totaling eleven overall. The issued patent covers the method of protecting a mammal from radiation using flagellin or its derivatives, including Protectan CBLB502.

We spent \$8,995,500 and \$11,828,423 on research and development for protectans overall in the fiscal years ended December 31, 2008 and December 31, 2007, respectively. For the quarters ended March 31, 2009 and 2008 we spent \$2,234,621 and \$2,427,395, respectively. From our inception to March 31, 2009, we spent \$28,743,120 on research and development for protectans.

### Protectan CBLB502

Protectan CBLB502 is our leading radioprotectant molecule in the protectans family. Protectan CBLB502 represents a rationally-designed derivative of the microbial protein, flagellin. Flagellin is secreted by *Salmonella typhimurium* and many other Gram-negative bacteria, and in nature, arranges itself in a hollow cylinder to form the filament in bacterial flagellum and acts as a natural activator of NF- $\kappa$ B (nuclear factor-kappa B), a protein complex widely used by cells as a regulator of genes that control cell proliferation and cell survival. Thus, Protectan CBLB502 reduces injury from

acute stresses by mobilizing several natural cell protective mechanisms, including inhibition of apoptosis, reduction of oxidative damage and induction of factors (cytokines) that induce protection and regeneration of stem cells in bone marrow and the intestines.

Protectan CBLB502 is a single agent anti-radiation therapy with significant survival benefits at a single dose. Animal studies indicate that Protectan CBLB502 protects mice without increasing the risk of radiation-induced cancer development. The remarkably strong radioprotective abilities of Protectan CBLB502 are the result of a combination of several mechanisms of action. Potential applications for Protectan CBLB502 include reduction of radiation therapy or chemotherapy toxicities in cancer patients, protection from Acute Radiation Syndrome (ARS) in defense scenarios, and protection from acute organ failure. Protectan CBLB502 is administered through intramuscular injection.

We spent \$8,021,040 and \$10,701,175 on research and development for Protectan CBLB502 in the fiscal years ended December 31, 2008 and December 31, 2007, respectively. For the quarters ended March 31, 2009 and 2008 we spent \$2,229,467, and \$2,164,442 respectively on research and development for Protectan CBLB502. From our inception to March 31, 2009, we spent \$25,607,593 on research and development for Protectan CBLB502.

#### Non-medical Applications

Our scientists have demonstrated that injecting Protectan CBLB502 into mice, rats and non-human primates protects them from lethal doses of total body gamma radiation. An important advantage of Protectan CBLB502, above any other radioprotectant known to us, is the ability to effectively protect not only the hematopoietic system, but also the gastrointestinal, or GI, tract, which is among the most sensitive areas of the human body to radiation. High levels of radiation, among other effects, induce moderate to severe bone marrow damage. The immune and blood stem cells are also depleted and death is caused by anemia, infection, bleeding and poor wound healing. GI damage often occurs at higher doses of radiation, and may result in death through sepsis as a result of perforation of the GI tract. Protectan CBLB502's ability to effectively protect the hematopoietic system and GI tract may make Protectan CBLB502 uniquely useful as a radioprotective antidote. Protectan CBLB502 was shown to be safe at its therapeutic doses in rodents and non-human primates. In addition, Protectan CBLB502 has proved to be a stable compound for storage purposes. It can be stored at temperatures close to freezing, room temperature or extreme heat. Manufacturing of Protectan CBLB502 is cost efficient, due to its high yield bacterial producing strain and simple purification process.

We have successfully established cGMP quality manufacturing for Protectan CBLB502 and are nearing completion of the first of two Phase I human safety studies for Protectan CBLB502 in ARS. Protectan CBLB502 is being developed under the FDA's animal efficacy rule to treat radiation injury following exposure to radiation from nuclear or radiological weapons, or from nuclear accident. This approval pathway requires demonstration of efficacy in two animal species and safety and drug metabolism testing in a representative sample of healthy human volunteers. Protectan CBLB502 has demonstrated activity as a radioprotectant in several animal species, including non-human primates. Phase I is the only stage of human testing required for approval in this indication.

The FDA gave us permission to start safety testing on humans on August 7, 2008. The first healthy volunteer in the dose escalation safety study was dosed on October 14, 2008. The initial safety study will involve single injections of Protectan CBLB502 in ascending dose groups of six healthy volunteers each. Participants in the study are being assessed for adverse side effects over two-week time period and blood samples are being obtained to assess the effects of Protectan CBLB502 on various biomarkers. The study is currently projected to be completed in spring 2009. The second safety study in a larger number of healthy volunteers is planned to start in the third quarter of 2009.

Prior to our receiving final FDA approval for Protectan CBLB502 for biodefense or non-medical applications, we will need to complete several interim steps, including:

- Performing a Phase I dose-escalation human study on a small number of volunteers. We expect to complete this study in June 2009 due to testing of additional cohorts in order to achieve maximum confidence in the dose selected for the larger human safety study. The study has an approximate cost of \$1,500,000 and is partially covered by a government contract.

- Conducting pivotal animal efficacy studies with the GMP manufactured drug candidate. We expect to complete these studies in mid 2010. The studies have an approximate cost of \$2,500,000 and are covered by a government development contract.

- Performing a human safety study in a larger number of volunteers using the dose of Protectan CBLB502 previously shown to be safe in humans and efficacious in animals. We estimate completion of this study in late 2010 at an approximate cost of \$5,300,000 based on 500 subjects tested in four locations. This study is also covered by a government development contract.
- Filing a Biologic License Application, or BLA which we expect to complete in late 2010. At the present time, the costs of the filing cannot be approximated with any level of certainty.

In March 2008, the U.S. Department of Defense, or DoD, awarded us a contract valued at up to \$8.9 million over eighteen months through the Chemical Biological Medical Systems Joint Project Management Office Broad Agency Announcement, or BAA, for selected tasks in the advanced development of Protectan CBLB502 as a Medical Radiation Countermeasure to treat radiation injury following exposure to radiation from nuclear or radiological weapons.

In September 2008, we were awarded a \$774,183 grant from the National Institute of Allergy and Infectious Diseases (NIAID) of the National Institutes of Health (NIH), to further study certain mitigating properties of Protectan CBLB502 in the context of hematopoietic damage from radiation exposure. The grant program, Medical Countermeasures to Enhance Platelet Regeneration and Increase Survival Following Radiation Exposure, is funded through the Project BioShield Act of 2004 and administered by the Department of Health and Human Services.

In September 2008, the Biomedical Advanced Research and Development Authority (BARDA) of the Department of Health and Human Services (DHHS) awarded us a contract under the Broad Agency Announcement titled, "Therapies for Hematopoietic Syndrome, Bone Marrow Stromal Cell Loss, and Vascular Injury Resulting from Acute Exposure to Ionizing Radiation," for selected tasks in the advanced development of Protectan CBLB502. The total contract value including all milestone-based options is \$13.3 million over a three-year period, with the first year's award of \$3.4 million. BARDA seeks to acquire developed medical countermeasures that will be clinically useful in a civilian medical emergency situation that results from or involves exposure of a large population to the effects of a nuclear detonation, a radiologic dispersive device (such as a dirty bomb), or exposure to radioactive material with or without combined injury or trauma.

Protectan CBLB502's unprecedented efficacy, unique ability to address both hematopoietic and gastrointestinal damage, broad time window of use, and mitigation effects that do not require additional supportive care and set it apart from any other existing or potential therapies.

We spent \$7,264,813 and \$9,885,776 on research and development for the biodefense applications of Protectan CBLB502 in the fiscal years ended December 31, 2008 and December 31, 2007, respectively. For the quarters ended March 31, 2009 and 2008 we spent \$2,173,341 and \$1,960,377 respectively on research and development for biodefense applications of Protectan CBLB502. From our inception to March 31, 2009, we spent \$23,774,537 on research and development for the biodefense applications of Protectan CBLB502.

Protectan CBLB502 is a candidate for procurement by the DoD, HHS/BARDA and other countries facing even more imminent threats. The HHS opportunity substantially expands the potential market, as its mandate is to protect the U.S. civilian population in the event of a radiological emergency, involving stockpiling of radiation countermeasures for mass distribution. Our recent contract award from the DoD and the solicitation from BARDA emphasize the government's focus on acquiring adequate protection against nuclear and radiation threats for military and civilian populations. Upon FDA approval, our Protectan CBLB502 will be well positioned to fulfill both of these needs, with its demonstrated unprecedented efficacy and survival benefits, unique ability to address both hematopoietic and gastrointestinal damage, broad window of efficacy relative to radiation exposure, and suitability for both military and civilian delivery scenarios. We believe that Protectan CBLB502 is the only radiation countermeasure with these capabilities in advanced development that can be self or buddy-administered, without the need of additional

supportive care in a battlefield or civilian community setting.

We intend to enter into contracts to sell Protectan CBLB502 to various U.S. government agencies as soon as the FDA approves the BLA. Future sales to U.S. government agencies will depend, in part, on our ability to meet federal contract requirements. Also, if the U.S. government makes significant future contract awards for the supply of its emergency stockpile to our competitors, our business will be harmed and it is unlikely that we will be able to ultimately commercialize our competitive product.

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## Medical Applications

While our current focus remains on its military and other non-medical applications, Protectan CBLB502 has been observed to dramatically increase the efficacy of radiotherapy of experimental tumors in mice. Protectan CBLB502 appears to increase the tolerance of mice to radiation while having no effect on the radiosensitivity of tumors, thus opening the possibility of combining radiotherapy with Protectan CBLB502 treatment to improve the overall anticancer efficacy of radiotherapy. Our animal efficacy studies have demonstrated that up to 100% of mice treated with Protectan CBLB502 prior to being exposed to radiation survived without any associated signs of toxicity. This compares to a 100% mortality rate in the animal group that received a placebo drug.

Specifically, Protectan CBLB502 has demonstrated the ability to reduce the toxicities of a chemotherapeutic drug, cisplatin (Platinol), broadly used for the treatment of ovarian, endometrial, head and neck, lung, stomach and other types of cancer in animal models. Cisplatin treatment was used in the study as an example of chemotherapy-associated toxicity. Cisplatin injected at toxic doses is known to induce myelosuppression (suppression of bone marrow) and nephrotoxicity (kidney damage).

The prospect of increasing patients' tolerance to chemotherapeutic drugs and optimizing treatment regimens would be a significant paradigm shift in cancer treatment. It is estimated that approximately 40% of the roughly \$50 billion annually spent on cancer treatment represents supportive care addressing toxicities of various treatments, including chemotherapy.

Consistent with this strategy, we plan to initiate a Phase I/II study for Protectan CBLB502 in head and neck cancer patients in 2009. The primary endpoint of the study will be the reduction of toxicities of radiation and chemotherapy, such as mucositis (a painful inflammation and ulceration of oral mucosa causing difficulties with speaking and eating). Mucositis weakens the patient by not allowing for the oral intake of nutrients and fluids and forces the temporary suspension of radiotherapy and chemotherapy until the tissues of the mouth and throat have healed. Due to the ability of head and neck cancer cells to regrow during periods of interrupted treatment, any interruption in radiotherapy should be avoided. Since the main cause of treatment interruptions in radiotherapy or combinations of chemotherapy and radiotherapy treatment regimens of head and neck cancer is acute mucositis, the ability to prevent mucositis, and therefore, interruptions in treatment, could potentially result in better outcomes for patients with cancers of the head and neck.

In other studies, we have demonstrated the potential of Protectan CBLB502 to be applicable to ischemic conditions. Our researchers, in collaboration with investigators from Cleveland Clinic, have demonstrated that a single injection of Protectan CBLB502 effectively prevents acute renal failure and subsequent death in a mouse model of ischemia-reperfusion renal injury.

Moreover, studies funded by a grant from the DoD and conducted at the Cleveland Clinic, have demonstrated Protectan CBLB502's ability to accelerate limb recovery in an animal model of tourniquet-mediated injury simulating the situation occurring in human. It has been demonstrated that injection of Protectan CBLB502 within 30 minutes of tourniquet removal leads to a marked reduction in the severity of injury, including reductions in tissue edema, pro-inflammatory cytokine production and leukocyte infiltration leading to accelerated recovery of limb function.

In contrast to the non-medical applications of CBLB502, the use of Protectan CBLB502 to ameliorate the side effects of radiation treatment and anticancer drugs will be subject to the full FDA approval process.

In order for us to receive final FDA approval for Protectan CBLB502 for medical applications, we will need to complete various tasks, including:

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Submitting an amendment to our CBLB502 IND application and receiving allowance from the FDA. We cannot estimate with any certainty when the FDA may allow the application. We expect to submit the amendment upon the receipt of dedicated federal funding. We estimate that the approximate cost of filing will be less than \$100,000.

- Performing a Phase I/II human efficacy study on a small number of cancer patients. We expect to complete this study two years from the receipt of allowance from the FDA of the IND amendment at an approximate cost of \$1,500,000.

- Performing an additional Phase II efficacy study on a larger number of cancer patients. At the present time, the costs and the scope of this study cannot be approximated with any level of certainty.
- Performing a Phase III human clinical study on a large number of cancer patients and filing a BLA with the FDA. At the present time, the costs and the scope of these steps cannot be approximated with any level of certainty.

We spent \$756,227 and \$815,399 on research and development for the medical applications of Protectan CBLB502 in the fiscal years ended December 31, 2008 and December 31, 2007, respectively. For the quarters ended March 31, 2009 and 2008, we spent \$56,127 and \$204,064 respectively on R&D for the medical applications of Protectan CBLB502. From our inception to March 31, 2009, we spent \$1,833,056 on research and development for the medical applications of Protectan CBLB502.

#### Protectan CBLB612

While the bulk of our R&D has focused on Protection CBLB502, we have conducted some preliminary research into a compound derived from the same family and which we refer to as Protectan CBLB612. Protectan CBLB612 is a modified lipopeptide mycoplasma that acts as a powerful stimulator and mobilizer of hematopoietic (bone marrow/blood production) stem cells, or HSC, to peripheral blood. Potential applications for Protectan CBLB612 include accelerated hematopoietic recovery during chemotherapy and during donor preparation for bone marrow transplantation.

Our research indicates that Protectan CBLB612 is not only a potent stimulator of bone marrow stem cells, but also causes their mobilization and proliferation throughout the blood. A single administration of Protectan CBLB612 resulted in a three-fold increase in the number of progenitor stem cells in mouse bone marrow within 24 hours after administration. Furthermore, the number of these stem cells in peripheral blood was increased ten-fold within four days of administration.

Protectan CBLB612 was also found to be highly efficacious in stimulating proliferation and mobilization of hematopoietic stem cells into peripheral blood in a primate model (Rhesus macaques). A single injection of Protectan CBLB612 in Rhesus macaques resulted in a 20-fold increase of hematopoietic progenitor cells in blood. At the peak of the effect (48-72 hours post-injection) the proportion of free-floating CD34+ cells in the total white blood cell count reached 30% (compared with 1.5% in normal blood). CD34 is a molecule present on certain cells within the human body. Cells expressing CD34, otherwise known as CD34+ cells, are normally found in the umbilical cord and bone marrow as hematopoietic cells.

This discovery opens a new and innovative way for us to address a broad spectrum of human diseases, some of which currently lack effective treatment. Direct comparisons of Protectan CBLB612 and the market leading drug used for stimulation of blood regeneration, G-CSF (Neupogen® or Neulasta®, Amgen, Inc., Thousand Oaks, California), demonstrated a stronger efficacy of Protectan CBLB612 as a propagator and mobilizer of HSC in peripheral blood.

Protectan CBLB612's strength as a stem cell stimulator was further demonstrated by the outcome of its combined use with G-CSF and Mozibil (AMD3100) (a recently FDA approved stem cell mobilizer from Genzyme Corporation (Cambridge, Massachusetts)), where the addition of Protectan CBLB612 resulted in eight to ten times higher yields of HSC in peripheral blood in comparison with the standard protocol.

In addition to efficacy in stimulation and mobilization of stem cells, Protectan CBLB612 was found to be highly effective in an animal bone marrow stem cell transplantation model. Blood from healthy mice treated by Protectan CBLB612 was transplanted into mice that received a lethal dose of radiation that killed hematopoietic (bone marrow/blood production) stem cells. A small amount of blood from the Protectan CBLB612 treated mice successfully rescued the mice with radiation-induced bone marrow stem cell deficiency. 100% of the deficient mice

transplanted with blood from CBLB612 treated mice survived past the 60-day mark, while 85% of the untreated deficient mice died within the first three weeks of the experiment. The 60-day mark is considered to be the critical point in defining the presence of long-term, adult bone marrow stem cells, which are capable of completely restoring lost or injured bone marrow function. The rescuing effect of the peripheral blood of the treated mice was equivalent to that of conventional bone marrow transplantation.

Adult hematological bone marrow stem cell transplantation is currently used for hematological disorders (malignant and non-malignant), as well as some non-hematological diseases, such as breast cancer, testicular cancer, neuroblastoma, ovarian cancer, Severe Combined Immune Deficiency (SCID), Wiskott-Aldrich syndrome, and Chediak-Higashi syndrome.

With efficacy and non-GLP safety already studied in mice and monkeys, Protectan CBLB612 entered formal pre-clinical safety and manufacturing development in February 2008. Further development of CBLB612 will continue upon achieving sufficient funding for completing pre-clinical development and a Phase I study. Development of Protectan CBLB612 has been supported by a grant from the Defense Advanced Research Projects Agency of the Department of Defense.

In order for us to receive final FDA approval for Protectan CBLB612, we need to complete several interim steps, including:

- Conducting pivotal animal safety studies with GMP-manufactured CBLB612.
- Submitting an IND application and receiving approval from the FDA;
- Performing a Phase I dose-escalation human study;
- Performing a Phase II and Phase III human efficacy study using the dose of CBLB612 selected from the previous studies previously shown to be safe in humans and efficacious in animals; and
- Filing a New Drug Application.

We spent \$974,459 and \$1,127,248 on research and development for Protectan CBLB612 in the fiscal years ended December 31, 2008 and December 31, 2007, respectively. For the quarters ended March 31, 2009 and 2008, we spent \$5,153 and \$262,954 respectively on R&D for Protectan CBLB612. From our inception to March 31, 2009, we spent \$3,135,528 on research and development for Protectan CBLB612. Further development and extensive testing will be required to determine its technical feasibility and commercial viability.

#### Curaxins

Curaxins are small molecules that destroy tumor cells by simultaneously targeting two regulators of apoptosis. Our initial test results indicate that curaxins can be effective against a number of malignancies, including renal cell carcinoma, or RCC, soft-tissue sarcoma, and hormone-refractory prostate cancer.

The original focus of our drug development program was to develop drugs to treat one of the most treatment-resistant types of cancer, RCC. Unlike many cancer types that frequently mutate or delete p53, one of the major tumor suppressor genes, RCC belongs to a rare category of cancers that typically maintain a wild type form of this protein. Nevertheless, RCC cells are resistant to apoptosis, suggesting that in spite of its normal structure, p53 is functionally disabled. The work of our founders has shown that p53 function is indeed inhibited in RCC by an unknown dominant factor. We have established a drug discovery program to identify small molecules that selectively destroy tumor cells by restoring the normal function to functionally impaired p53 in RCC. This program yielded a series of chemicals with the desirable properties named curaxins (CBLC100 series). We have isolated three chemical classes of curaxins. One of them includes relatives of 9-aminoacridine, the compound that is the core structure of many existing drugs. Pre-existing information about this compound has allowed us to bypass the preclinical development and Phase I studies and bring one of our drug candidates into Phase IIa clinical trials, saving years of R&D efforts and improving the probability of success.

One of the most important outcomes of this drug discovery program was the identification of the mechanism by which curaxins deactivate NF-kB. This mechanism of action makes curaxins potent inhibitors of the production and the activity of NF-kB not only in its stimulated form, but also in its basal form. The level of active NF-kB is usually also increased in cancer cells. Moreover, due to curaxin-dependent functional conversion of NF-kB-DNA complexes, the cells with the highest basal or induced NF-kB activity are supposed to be the most significantly affected by curaxins.

Clearly, this paradoxical activity makes deactivation of NF-kB by curaxins more advantageous compared to conventional strategies targeting NF-kB activators.

The discovery of the mechanism of action of curaxins allowed us to predict and later experimentally verify that curaxins could be used for treatment of multiple forms of cancers, including hormone-refractory prostate cancer, hepatocellular carcinoma, multiple myeloma, acute lymphocytic leukemia, acute myeloid leukemia, soft-tissue sarcomas and several others.

A significant milestone in the curaxin program was a recently achieved breakthrough in deciphering the finer details of the mechanism of action of these compounds. Successful identification of the exact cellular moiety that binds to curaxins has provided a mechanistic explanation for the unprecedented ability of these compounds to simultaneously target several signal transduction pathways.

This new mechanistic knowledge enabled us to discover additional advantages of curaxins and to rationally design treatment regimens and drug combinations, which have since been validated in experimental models. In addition, this understanding further strengthens our intellectual property position for this exciting class of principally new anticancer drugs.

We spent \$3,233,872 and \$4,708,773 on research and development for curaxins overall in the fiscal years ended December 31, 2008 and December 31, 2007, respectively. For the quarters ended March 31, 2009 and 2008, we spent \$268,261 and \$872,646 respectively on R&D for curaxins. From our inception to March 31, 2009, we spent \$11,909,853 on research and development for curaxins.

#### Curaxin CBLC102

One of the curaxins from the 9-aminoacridine group is a long-known, anti-infective compound known as quinacrine, which we refer to as Curaxin CBLC102. It has been used for over 40 years to treat malaria, osteoarthritis and autoimmune disorders. However, we have discovered new mechanisms of action for quinacrine in the area of apoptosis. Through assay testing performed at Dr. Andrei Gudkov's laboratories at the Cleveland Clinic beginning in 2002, which included testing in a variety of human tumor-derived cell lines representing cancers of different tissue origin (including RCC, sarcomas, prostate, breast and colon carcinomas), we have observed that Curaxin CBLC102 behaves as a potent NF- $\kappa$ B suppressor and activator of p53 in these types of cancer cells. It has favorable pharmacological and toxicological profiles and demonstrates the anticancer effect in transplants of human cancer cells into primates.

We have applied for a patent covering the use of Curaxin CBLC102 as an anticancer agent

We have an agreement with Regis Technologies, Inc., a GMP manufacturer, to produce sufficient quantities of Curaxin CBLC102 according to the process previously used for the production of this drug when it was in common use.

We launched a Phase II study with CBLC102 in January 2007 to provide proof of safety and of anti-neoplastic activity in cancer patients and establish a foundation for clinical trials of our new proprietary curaxin molecules, which have been designed and optimized for maximum anticancer effects, as well as for additional treatment regimens based on ongoing research into the precise molecular mechanisms of action of curaxins.

Thirty-one patients were enrolled in a Phase II study of CBLC102 as a monotherapy in late stage, hormone-refractory taxane-resistant prostate cancer. All patients had previously received hormonal treatment for advanced prostate cancer and 28 of the 31 had also previously received chemotherapy. One patient had a partial response, while 50% of the patients exhibited a decrease or stabilization in PSA velocity, a measure of the speed of prostate cancer progression. CBLC102 was well tolerated and there were no serious adverse events attributed to the drug. The trial demonstrated indications of activity and a remarkable safety profile in one of the most difficult groups of cancer patients.

The indications of activity and remarkable safety demonstrated in the CBLC102 Phase II trial, in conjunction with new mechanistic discoveries, point to additional potential treatment paradigms including combination therapies with existing drugs or prospective use as a cancer prevention agent. Additional potential uses for CBLC102 will be explored in conjunction with our strategic partners at Roswell Park Cancer Institute.

We anticipate that additional clinical efficacy studies will be required before we are able to apply for FDA approval. Because of the uncertainties of the scope of the remaining clinical studies, we cannot currently estimate when any development efforts may be completed or the cost of completion. Nor can we estimate when we may realize any cash flow from the development of Curaxin CBLC102.

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We spent \$1,741,194 and \$2,712,521 on research and development for Curaxin CBLC102 in the fiscal years ended December 31, 2008 and December 31, 2007, respectively. For the quarters ended March 31, 2009 and 2008, we spent \$147,177 and \$469,853 respectively on research and development for Curaxin CBLC102. From our inception to March 31, 2009, we spent \$6,613,659 on research and development for Curaxin CBLC102.

#### Other Curaxins

As mentioned above, screening of the chemical library for compounds capable of restoring normal function to wild type p53 in the context of RCC yielded three chemical classes of compounds. Generation of focused chemical libraries around the hits from one of these classes and their structure-activity optimization brought about a new generation of curaxins. As the part of this program performed in the partnership with ChemBridge Corporation, more than 800 proprietary compounds were screened for p53 activation, efficacy in animal tumor models, selective toxicity and metabolic stability in the presence of rat and human microsomes. The most active compounds were efficacious in preventing tumor growth in models for colon carcinoma, melanoma, ovarian cancer, RCC, and breast cancer.

As a result of this comprehensive hit-to-lead optimization program, we have developed CBLC137, which is a drug candidate with proprietary composition of matter intellectual property protection belonging to our next generation of highly improved curaxins. CBLC137 has demonstrated reliable anti-tumor effects in animal models of colon, breast, renal and prostate cancers. CBLC137 has favorable pharmacological characteristics, is suitable for oral administration and demonstrates a complete lack of genotoxicity. It shares all of the positive aspects of CBLC102, but significantly exceeds the former compound's activity and efficacy in preclinical tumor models. Further development of CBLC137 will continue upon achieving sufficient funding for completing pre-clinical development and a Phase I study.

We spent \$1,492,678 and \$1,996,252 on research and development for other curaxins in the fiscal years ended December 31, 2008 and December 31, 2007, respectively. For the quarters ended March 31, 2009 and 2008, we spent \$121,084 and \$402,792 respectively on R&D for other curaxins. From our inception to March 31, 2009, we spent \$5,296,194 on research and development for other curaxins.

CBLC137 is at a very early stage of its development and, as a result, it is premature to estimate when any development may be completed, the cost of development or when any cash flow could be realized from development.

#### FINANCIAL OVERVIEW

We were incorporated in Delaware and commenced business operations in June 2003. Beginning July 21, 2006, our common stock was listed on the NASDAQ Capital Market and on the Boston Stock Exchange under the symbols "CBLI" and "CFB" respectively. On August 28, 2007, trading of our stock moved from the NASDAQ Capital Market to the NASDAQ Global Market. In September 2007, we ceased our listing on the Boston Stock Exchange.

On March 16, 2007, we consummated a transaction with various accredited investors pursuant to which we agreed to sell to the investors, in a private placement, an aggregate of approximately 4,288,712 shares of Series B Convertible Preferred Stock, par value \$0.005 per share, and Series B Warrants to purchase approximately 2,144,356 shares of our common stock pursuant to a Securities Purchase Agreement of the same date. As of March 31, 2009, 1,762,894 shares of Series B Preferred were converted and \$2,119,741 in dividends earned were paid. At March 31, 2009 there were 2,816,116 remaining outstanding Series B Preferred shares for which \$40,506 in dividends had been accrued.

On February 13, 2009, March 20, 2009, and March 27, 2009, we entered into Purchase Agreements with various Purchasers, pursuant to which we agreed to sell to the Purchasers an aggregate of 542.84 shares of Series D Preferred and Warrants to purchase an aggregate of 3,877,386 shares of the Company's Common Stock, par value \$0.005 per share. The Warrants have a seven-year term and an exercise price of \$1.60. Each share of Series D Preferred is convertible into approximately 7,143 shares of Common Stock, subject to the adjustment as described below.



The aggregate purchase price paid by the Purchasers for the Series D Preferred and the Warrants was approximately \$5,428,307 (representing \$10,000 for each Share together with a Warrant). After related fees and expenses, we received net proceeds of approximately \$4,460,000. We intend to use the proceeds for working capital purposes.

In consideration for its services as exclusive placement agent, GSS received cash compensation and Warrants to purchase an aggregate of approximately 387,736 shares of Common Stock. In the aggregate, Series D Preferred and Warrants issued in the transaction (including those issued to GSS) are convertible into, and exercisable for, approximately 8,142,508 shares of Common Stock. Each share of Series D Preferred is convertible into a number of shares of Common Stock equal to (1) the stated value of the share (\$10,000), divided by (2) the Conversion Price (\$1.40, subject to adjustment as discussed below).

The Series D Preferred ranks junior to our Series B Preferred and senior to all our shares of Common Stock and other capital stock.

If we do not meet certain milestones, the Conversion Price will, unless the closing price of the Common Stock is greater than \$3.69 on the date the Milestone is missed, be reduced to 80% of the Conversion Price in effect on that date. In addition to the Milestone Adjustment, (a) on August 13, 2009, the Conversion Price shall be reduced to 95% of the then Conversion Price, and (b) on each three-month anniversary of August 13, 2009, the then Conversion Price shall be reduced by \$0.05 until maturity. The Conversion Price is also subject to proportional adjustment in the event of any stock split, stock dividend, reclassification or similar event with respect to the Common Stock and to anti-dilution adjustment in the event of any Dilutive Issuance.

If the closing price for each of any 20 consecutive trading days after the effective date of the initial registration statement filed pursuant to the Registration Rights Agreement exceeds 300% of the then effective Conversion Price and various other equity conditions are satisfied, the Series D Preferred will automatically convert into shares of Common Stock.

At any time after February 13, 2012, we may, if various equity conditions are satisfied, elect either to redeem any outstanding Series D Preferred in cash or to convert any outstanding Series D Preferred into shares of Common Stock at the conversion rate then in effect.

If we receive any cash funds after February 13, 2009 from fees, royalties or revenues as a result of the license of any of our intellectual property, cash funds from development grants from any government agency for the development of anti-cancer applications of any of our curaxin compounds or anti-cancer or biodefense applications for our CBLB502 compound or we allocate cash proceeds to our escrow account, then we must deposit 40% of the IP Proceeds, 20% of the Governmental Grant Proceeds and any cash proceeds into an escrow account. At any time after the later of the Effective Date and the six-month anniversary of the initial contribution by us to the Sinking Fund, but no more than once in every six-month period, we will be required to use the funds then in the escrow account to redeem outstanding shares of Series D Preferred, from the holders on a pro rata basis, at a premium of 15% to the stated value through February 13, 2010, and 20% thereafter.

Immediately after the completion of the transactions contemplated by the Purchase Agreements, the conversion price of the Company's Series B Preferred was adjusted, pursuant to weighted-average anti-dilution provisions, to \$4.67, causing the conversion rate of Series B Preferred into Common Stock to change to approximately 1-to-1.49893. In addition, the exercise prices of the Company's Series B Warrants and Series C Warrants were adjusted, pursuant to weighted-average anti-dilution provisions, to \$6.79 and \$7.20, respectively, from the original exercise prices of \$10.36 and \$11.00. In addition to the adjustment to the exercise prices of the Series B Warrants and the Series C Warrants, the aggregate number of shares issuable upon exercise of the Series B Warrants and the Series C Warrants increased to 3,609,261 and 408,032, respectively, from 2,365,528 and 267,074. Certain other warrants issued prior to the Company's initial public offering were also adjusted pursuant to anti-dilution provisions contained in those

warrants such that their per share exercise price reduced from \$2.00 to \$1.48 and the aggregate number of shares of Common Stock issuable increased from approximately 281,042 to approximately 379,792.

#### Critical Accounting Policies and the Use of Estimates

Our management's discussion and analysis of our financial condition and results of operations is based upon our financial statements, which have been prepared in accordance with generally accepted accounting principles in the U.S., or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of our assets, liabilities, revenues, expenses and other reported disclosures. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances.

Note 2 to our financial statements includes disclosure of our significant accounting policies. While all decisions regarding accounting policies are important, we believe that our policies regarding revenue recognition, research and development expenses, intellectual property related costs, stock-based compensation expense and fair value measurements could be considered critical.

#### Revenue Recognition

We recognize revenue in accordance with Staff Accounting Bulletin No. 104, "Revenue Recognition", and Statement of Financial Accounting Standards No. 116, or SFAS 116. Our revenue sources consist of government grants, government contracts and a commercial development contract.

Grant revenue is recognized using two different methods depending on the type of grant. Cost reimbursement grants require us to submit proof of costs incurred that are invoiced by us to the government agency, which then pays the invoice. In this case, grant revenue is recognized during the period that the costs were incurred.

Fixed-cost grants require no proof of costs and are paid as a request for payment is submitted for expenses. The grant revenue under these fixed cost grants is recognized using a percentage-of-completion method, which uses assumptions and estimates. These assumptions and estimates are developed in coordination with the principal investigator performing the work under the government fixed-cost grants to determine key milestones, expenses incurred, and deliverables to perform a percentage-of-completion analysis to ensure that revenue is appropriately recognized. Critical estimates involved in this process include total costs incurred and anticipated to be incurred during the remaining life of the grant.

We recognize revenue related to the funds received in 2007 from the State of New York under the sponsored research agreement with the Roswell Park Cancer Institute in accordance with SFAS 116. The principles of SFAS 116 result in the recognition of revenue as allowable costs are incurred. The Company recognizes revenue on research laboratory services and the purchase and subsequent use of related equipment. The amount paid as a payment toward future services related to the equipment is recognized as a prepaid asset and will be recognized as revenue as the services are performed and the prepaid asset is recognized as expense.

Government contract revenue is recognized as allowable research and development expenses are incurred during the period and according to the terms of the contract. Commercial development revenues are recognized when the service or development is delivered.

#### Research and Development Expenses

Research and development costs are expensed as incurred. These expenses consist primarily of our proprietary research and development efforts, including salaries and related expenses for personnel, costs of materials used in our research and development costs of facilities and costs incurred in connection with our third-party collaboration efforts. Pre-approved milestone payments made by us to third parties under contracted research and development arrangements are expensed when the specific milestone has been achieved. As of March 31, 2009, \$50,000 has been paid to CCF for milestone payments relating to the filing of an IND with the FDA for Curaxin CBLC102, \$250,000 has been paid to CCF as a result of commencing Phase II clinical trials for Curaxin CBLC102 and \$50,000 has been paid to CCF relating to the filing of an IND with the FDA for Protectan CBLB502. Once a drug receives regulatory approval, we will record any subsequent milestone payments in identifiable intangible assets, less accumulated amortization, and amortize them evenly over the remaining agreement term or the expected drug life cycle, whichever is shorter. We expect our research and development expenses to increase as we continue to develop our drug candidates.

#### Intellectual Property Related Costs

We capitalize costs associated with the preparation, filing and maintenance of our intellectual property rights. Capitalized intellectual property is reviewed annually for impairment. If a patent application is approved, costs paid by us associated with the preparation, filing and maintenance of the patent will be amortized on a straight line basis over the shorter of 20 years or the anticipated useful life of the patent. If the patent application is not approved, costs paid by us associated with the preparation, filing and maintenance of the patent will be expensed as part of selling, general and administrative expenses at that time.

Through December 31, 2008, we capitalized \$733,051 in expenditures associated with the preparation, filing and maintenance of certain of our patents, which were incurred through the year ended December 31, 2008. We capitalized an additional \$39,402 and wrote off \$23,984 of previously capitalized expenditures relating to these costs incurred for the three months ended March 31, 2009, resulting in a balance of capitalized intellectual property totaling \$748,468.

#### Stock-based Compensation

We value stock-based compensation pursuant to the provisions of SFAS 123(R). Accordingly, effective January 1, 2005, all stock-based compensation, including grants of employee stock options, are recognized in the statement of operations based on their fair values.

The Financial Accounting Standards Board (FASB) issued SFAS No. 123(R) requiring all share-based payments to employees, including grants of employee stock options, be recognized in the statement of operations based at their fair values. The Company values employee stock-based compensation under the provisions of SFAS 123(R) and related interpretations.

The fair value of each stock option granted is estimated on the grant date using accepted valuation techniques such as the Black Scholes Option Valuation model or Monte Carlo Simulation depending on the terms and conditions present within the specific option being valued. The assumptions used to calculate the fair value of options granted are evaluated and revised, as necessary, to reflect our experience. We use a risk-free rate based on published rates from the St. Louis Federal Reserve at the time of the option grant; assume a forfeiture rate of zero; assume an expected dividend yield rate of zero based on our intent not to issue a dividend in the foreseeable future; use an expected life based on the safe harbor method; and presently compute an expected volatility based on a method layering in the volatility of the Company along with that of similar high-growth, publicly-traded, biotechnology companies due to the limited trading history of the Company. Compensation expense is recognized using the straight-line amortization method for all stock-based awards.

During the three months ended March 31, 2009, the Company granted no stock options. The Company recognized a total of \$101,563 in expense related to options for the three months ended March 31, 2009. The Company also recaptured \$37,878 of previously recognized expense due to the stock option forfeitures

For the three months ended March 31, 2009 the Company also recognized a total of \$202,083 expense for shares issued under the Plan and a total of \$8,333 in expense related to the amortization of restricted shares.

During the quarters ended March 31, 2009 and 2008, the Company granted 0 and 719,948 additional stock options pursuant to stock award agreements, respectively. We recognized a total of \$63,685 and (\$731,348) in expense related to options for the quarters ended March 31, 2009 and 2008, respectively. The weighted average, estimated grant date fair values of stock options granted during the quarters ended March 31, 2009 and 2008 was \$0 and \$2.86, respectively.

#### Fair Value Measurement

In September 2006, The Financial Accounting Standards Board (“FASB”) issued Statement of Financial Accounting Standards (“SFAS”) No. 157, “Fair Value Measurements.” SFAS No. 157 provides enhanced guidance for using fair value to measure assets and liabilities and expands disclosure with respect to fair value measurements. This statement was originally effective for fiscal years beginning after November 15, 2007. In February 2008, the FASB issued FSP157-2 which allows companies to elect a one-year deferral of adoption of SFAS No. 157 for non-recurring assets and non-financial liabilities that are recognized or disclosed at fair value in the financial statements on a non-recurring basis. The Company has adopted SFAS No. 157 as of January 1, 2008.

SFAS No. 157 establishes a valuation hierarchy for disclosure of the inputs to valuation used to measure fair value. This hierarchy prioritizes the inputs into three broad levels as follows: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities; Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly; and Level 3 inputs are unobservable inputs in which little or no market data exists, therefore requiring a company to develop its own assumptions. The Company does not have any significant assets or liabilities measured at fair value using Level 1 or Level 3 inputs as of March 31, 2009.



The Company analyzed all financial instruments with features of both liabilities and equity under SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity," SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," and EITF 00-19, "Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock."

The Company carries the warrants issued in the Series D Private Placement at fair value totaling \$4,401,606 and \$0 as of March 31, 2009 and December 31, 2008, respectively. The Company recognized a fair value measurement loss of \$1,384,772 and \$0 for the quarters ended March 31, 2009 and March 31, 2008, respectively.

The Company did not identify any other non-recurring assets and liabilities that are required to be presented on the balance sheets at fair value in accordance with SFAS 157.

#### Impact of Recently Issued Accounting Pronouncements

In June 2008, the Financial Accounting Standards Board ("FASB") issued EITF Issue No. 07-5 ("EITF 07-5"), Determining whether an Instrument (or Embedded Feature) is indexed to an Entity's Own Stock. EITF No. 07-5 is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. Early application is not permitted. Paragraph 11(a) of SFAS No. 133 - specifies that a contract that would otherwise meet the definition of a derivative but is both (a) indexed to the Company's own stock and (b) classified in stockholders' equity in the statement of financial position would not be considered a derivative financial instrument. EITF 07-5 provides a new two-step model to be applied in determining whether a financial instrument or an embedded feature is indexed to an issuer's own stock and thus able to qualify for the SFAS No. 133 paragraph 11(a) scope exception. The adoption of EITF 07-5 is not anticipated to materially impact our financial statements.

In June 2008, the FASB issued EITF 08-4, "Transition Guidance for Conforming Changes to Issue No. 98-5." The objective of EITF 08-4 is to provide transition guidance for conforming changes made to EITF No. 98-5, "Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios," that result from EITF No. 00-27 "Application of Issue No. 98-5 to Certain Convertible Instruments," and SFAS 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." This Issue is effective for financial statements issued for fiscal years ending after December 15, 2008. Early application is permitted. We are currently evaluating the impact of adoption of EITF 08-4.

In May 2008, the FASB issued SFAS No. 162, Hierarchy of Generally Accepted Accounting Principles ("SFAS No. 162"). SFAS No. 162 identifies the sources of accounting principles and the framework for selecting the principles used in the preparation of financial statements. The implementation of this standard did not have an impact on our financial statements.

In April 2008, the FASB issued FASB Staff Position No. FAS 142-3, "Determination of the Useful Life of Intangible Assets" ("FSP FAS 142-3"). FSP FAS 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under FASB Statement No. 142, "Goodwill and Other Intangible Assets". The FSP is intended to improve the consistency between the useful life of a recognized intangible asset under Statement 142 and the period of expected cash flows used to measure the fair value of the asset under SFAS 141(R) and other U.S. generally accepted accounting principles. The new standard is effective for financial statements issued for fiscal years and interim periods beginning after December 15, 2008. We are currently evaluating the impact, if any of FSP FAS 142-3 upon adoption on our financial statements.

In March 2008, the FASB issued SFAS No. 161. "Disclosures about Derivative Instruments and Hedging Activities," (SFAS No. 161). SFAS No. 161 amends and expands the disclosure requirements of SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities." SFAS No. 161 requires qualitative disclosures about objectives and

strategies for using derivatives, quantitative disclosures about fair value amounts of gains and losses on derivative instruments and disclosures about credit-risk-related contingent features in derivative agreements. SFAS No. 161 is intended to improve financial reporting about derivative instruments and hedging activities by requiring enhanced disclosures to enable investors to better understand their effects on an entity's financial position, financial performance, and cash flows. This statement is effective for financial statements issued for fiscal years beginning after November 15, 2008. The adoption of SFAS No.161 will not affect our financial condition and results of operations, but may require additional disclosures if we enter into derivative and hedging activities.

In October 2008, the FASB issued FAS 157-3, Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active (FAS 157-3). FAS 157-3 clarifies the application of FASB Statement No. 157, Fair Value Measurements, in a market that is not active and provides an example to illustrate key considerations in determining the fair value of a financial asset when the market for that financial asset is not active. The FSP is effective upon issuance, including for prior periods for which financial statements have not been issued. Revisions resulting from a change in the valuation technique or its application should be accounted for as a change in accounting estimate following the guidance in FASB Statement No. 154, Accounting Changes and Error Corrections. However, the disclosure provisions in Statement 154 for a change in accounting estimate are not required for revisions resulting from a change in valuation technique or its application. We believe the impact of this pronouncement on our financial statements to be immaterial.

### Results of Operations

Our operating results for the past three fiscal years have been nominal. The following table sets forth our statement of operations data for the quarter ended March 31, 2009 and 2008, and the years ended December 31, 2008 and December 31, 2007, and should be read in conjunction with our financial statements and the related notes appearing elsewhere in this filing and in our Annual Report on Form 10-K for the year ended December 31, 2008.

|                               | Quarter<br>Ended<br>31-Mar-09<br>(unaudited) | Quarter<br>Ended<br>31-Mar-08<br>(unaudited) | Year Ended<br>December 31,<br>2008 | Year Ended<br>December 31,<br>2007 |
|-------------------------------|--|--|------------------------------------|------------------------------------|
| Revenues                      | \$ 2,309,731                                 | \$ 676,324                                   | \$ 4,705,597                       | \$ 2,018,558                       |
| Operating expenses            | 3,624,771                                    | 4,744,500                                    | 19,050,965                         | 27,960,590                         |
| Other expense (income)        | 1,647,237                                    | 47,002                                       | (59,597)                           | 2,058,236                          |
| Net interest expense (income) | (3,348)                                      | (145,127)                                    | (259,844)                          | (1,003,766)                        |
| Net income (loss)             | \$ (2,958,929)                               | \$ (3,970,051)                               | \$ (14,025,927)                    | \$ (26,996,502)                    |

The following table summarizes research and development expenses for the quarters ended March 31, 2009 and 2008 and the years ended December 31, 2008 and 2007 and since inception:

|  | Quarter<br>Ended<br>31-Mar-09<br>(unaudited) | Quarter<br>Ended<br>31-Mar-08<br>(unaudited) | Year Ended<br>December 31,<br>2008 | Year Ended<br>December 31,<br>2007 | Total<br>Since<br>Inception |
|--|--|--|------------------------------------|------------------------------------|-----------------------------|
| Research and development                     | \$ 2,502,881                                 | \$ 3,551,386                                 | \$ 13,160,812                      | \$ 17,429,652                      | \$ 45,759,603               |
| General                                      | \$ -   | \$ 251,345                                   | \$ 931,441                         | \$ 892,456                         | \$ 5,106,630                |
| Protectan CBLB502 - medical applications     | \$ 2,173,341                                 | \$ 1,960,377                                 | \$ 7,264,813                       | \$ 9,885,776                       | \$ 23,774,537               |
| Protectan CBLB502 - non-medical applications | \$ 56,127                                    | \$ 204,064                                   | \$ 756,227                         | \$ 815,399                         | \$ 1,833,056                |
| Protectan CBLB612                            | \$ 5,153                                     | \$ 262,954                                   | \$ 974,459                         | \$ 1,127,248                       | \$ 3,135,527                |
| Curaxin CBLC102                              | \$ 147,177                                   | \$ 469,853                                   | \$ 1,741,194                       | \$ 2,712,521                       | \$ 6,613,659                |
| Other Curaxins                               | \$ 121,084                                   | \$ 402,792                                   | \$ 1,492,678                       | \$ 1,996,252                       | \$ 5,296,194                |

Three Months Ended March 31, 2009 Compared to Three Months Ended March 31, 2008

## Revenue

Revenue increased from \$676,324 for the three months ended March 31, 2008 to \$2,309,731 for the three months ended March 31, 2009 representing an increase of \$1,633,407 or 141.5% resulting primarily from an increase in revenue from various federal grants and contracts including the Department of Defense and BARDA contracts.

See the table below for further details regarding the sources of our government grant and contract revenue:

| Agency        | Program                      | Amount        | Period of Performance | Revenue 2009<br>(thru March 31)<br>(unaudited) | Revenue 2008<br>(thru March 31)<br>(unaudited) | Revenue 2008 |
|---------------|------------------------------|---------------|-----------------------|--|--|--------------|
| DoD           | DTRA Contract                | \$ 1,263,836  | 03/2007-02/2009       | \$ 1,024                                       | \$ 323,826                                     | \$ 613,901   |
| NIH           | Phase II NIH SBIR program    | \$ 750,000    | 07/2006-06/2008       | \$ -   | \$ 77,971                                      | \$ 77,971    |
| NY State/RPCI | Sponsored Research Agreement | \$ 3,000,000  | 03/2007-02/2012       | \$ 24,660                                      | \$ 90,749                                      | \$ 305,298   |
| NIH           | NCI Contract                 | \$ 750,000    | 09/2006-08/2008       | \$ -   | \$ 63,778                                      | \$ 219,618   |
| DoD           | DOD Contract                 | \$ 8,900,000  | 05/2008 - 09/2009     | \$ 1,180,463                                   | \$ -   | \$ 2,938,357 |
| HHS           | BARDA Contract               | \$ 13,300,000 | 09/2008-09/2011       | \$ 702,188                                     | \$ -   | \$ 219,412   |
| NIH           | NIAID Grant                  | \$ 774,183    | 09/2008-02/2010       | \$ 401,396                                     | \$ -   | \$ 211,040   |
| Totals        |                              |               |                       | \$ 2,309,731                                   | \$ 556,324                                     | \$ 4,585,597 |

We anticipate our revenue over the next year to be derived mainly from government grants and contracts. In addition, it is common in our industry for companies to enter into licensing agreements with large pharmaceutical companies. To the extent we enter into such licensing arrangements, we may receive additional revenue from licensing fees.

## Operating Expenses

Operating expenses have historically consisted of costs relating to R&D and general and administrative expenses. R&D expenses have consisted mainly of supporting our R&D teams, process development, sponsored research at the Roswell Park Cancer Institute and Cleveland Clinic, clinical trials and consulting fees. General and administrative expenses include all corporate and administrative functions that serve to support our current and future operations while also providing an infrastructure to support future growth. Major items in this category include management and staff salaries, rent/leases, professional services and travel-related expenses. We anticipate these expenses to increase as a result of increased legal and accounting fees anticipated in connection with our compliance with ongoing reporting and accounting requirements of the SEC and the expansion of our business.

Operating expenses decreased from \$4,744,500 for the three-months ended March 31, 2008 to \$3,624,771 for the three-months ended March 31, 2009, a decrease of \$1,119,729 or 23.6%. We recognized a total of \$274,101 of non-cash, stock-based compensation for the three-months ended March 31, 2009 compared to (\$192,626) for the three-months ended March 31, 2008. If these non-cash, stock-based compensation expenses were excluded, operating expenses would have decreased from \$4,937,126 for the three-months ended March 31, 2008 to \$3,350,670 for the three-months ended March 31, 2009. This represents a decrease in operating expenses of \$1,586,456 or 32.1% as explained below.

Research and development costs decreased from \$3,551,386 for the three-months ended March 31, 2008 to \$2,502,881 for the three-months ended March 31, 2009. This represents a decrease of \$1,048,505 or 29.5%. We recognized a total of \$45,958 of R&D non-cash, stock based compensation for the three-months ended March 31, 2009 compared to \$46,862 for the three-months ended March 31, 2008. Without the non-cash, stock-based compensation, the R&D expenses decreased from \$3,504,524 for the three-months ended March 31, 2008 to \$2,456,923 for the three-months ended March 31, 2009; a decrease of \$1,047,601 or 29.9%. The lower research and development expenses were a result of cost containment efforts and focusing research and development efforts on a more select number of projects.

Selling, general and administrative costs decreased from \$1,193,114 for the three-months ended March 31, 2008 to \$1,121,890 for the three-months ended March 31, 2009. This represents a decrease of \$71,224 or 6.0%. We recognized a total of \$228,143 of non-cash, stock-based compensation under selling, general and administrative costs for the three-months ended March 31, 2009 compared to (\$239,488) for the three-months ended March 31, 2008. Without the non-cash, stock-based compensation, the selling, general and administrative expenses decreased from \$1,432,602 for the three-months ended March 31, 2008 to \$893,747 for the three months ended March 31, 2009; a decrease of \$538,855 or 37.6%. The lower general and administrative expenses were incurred as a result of cost containment efforts.

Until we introduce a product to the market, we expect these expenses in the categories mentioned above will be the largest categories in our income statement.

#### Year Ended December 31, 2008 Compared to Year Ended December 31, 2007

##### Revenue

Revenue increased from \$2,018,558 for the year ended December 31, 2007 to \$4,705,597 for the year ended December 31, 2008, representing an increase of \$2,687,039 or 133.1%, resulting primarily from an increase in revenue from the DoD contract, the BARDA contract and the NIAID grant.

See the table below for further details regarding the sources of our grant and government contract revenue:

| Agency        | Program                      | Amount        | Period of Performance | Revenue 2008 | Revenue 2007 |
|---------------|------------------------------|---------------|-----------------------|--------------|--------------|
| DoD           | DTRA Contract                | \$ 1,263,836  | 03/2007-02/2009       | \$ 613,901   | \$ 466,322   |
| NIH           | Phase II NIH SBIR program    | \$ 750,000    | 07/2006-06/2008       | \$ 77,971    | \$ 459,621   |
| NASA          | Phase I NASA STTR program    | \$ 100,000    | 01/2006-01/2007       | \$ -         | \$ 33,197    |
| NY State/RPCI | Sponsored Research Agreement | \$ 3,000,000  | 03/2007-02/2012       | \$ 305,298   | \$ 329,390   |
| NIH           | NCI Contract                 | \$ 750,000    | 09/2006-08/2008       | \$ 219,618   | \$ 440,028   |
| DoD           | DOD Contract                 | \$ 8,900,000  | 05/2008 - 09/2009     | \$ 2,938,357 | \$ -         |
| HHS           | BARDA Contract               | \$ 13,300,000 | 09/2008-09/2011       | \$ 219,412   | \$ -         |
| NIH           | NIAID Grant                  | \$ 774,183    | 09/2008-02/2010       | \$ 211,040   | \$ -         |
| Totals        |                              |               |                       | \$ 4,585,597 | \$ 1,728,558 |

We anticipate our revenue over the next year to be derived mainly from government grants and contracts. We have been awarded 17 government contracts and grants totaling over \$30 million in funding for R&D. We plan to submit proposals for additional government contracts and grants over the next two years totaling over \$30 million in funding. Many of the proposals will be submitted to government agencies that have awarded contracts and grants to us in the recent past, but there is no guarantee that any will be awarded to us.

If these awards are not funded in their entirety or if new grants and contracts are not awarded in the future, our ability to fund future R&D and implement technological improvements would be diminished, which would negatively impact our ability to compete in our industry.

##### Operating Expenses

Operating expenses have historically consisted of costs relating to R&D and general and administrative expenses. R&D expenses have consisted mainly of supporting our R&D teams, process development, sponsored research at the Roswell Park Cancer Institute and the Cleveland Clinic, clinical trials and consulting fees. We plan to incur only those R&D costs that are properly funded, either through a government contract or grant or other capital sources such as direct investment. General and administrative expenses include all corporate and administrative functions that serve to support our current and future operations while also providing an infrastructure to support future growth. Major items in this category include management and staff salaries, rent/leases, professional services and travel-related expenses. Some of these costs will be funded through government contracts and grants that provide indirect cost reimbursement for certain indirect costs such as fringe benefits, overhead and general and administrative expenses.

Operating expenses decreased from \$27,960,590 for the year ended December 31, 2007 to \$19,050,965 for the year ended December 31, 2008. This represents a decrease of \$8,909,625 or 31.9%. We recognized a total of \$1,527,598 of non-cash compensation for stock based compensation for the year December 31, 2008 compared to \$7,789,305 for the year ended December 31, 2007. If these non-cash stock based compensation expenses were excluded, operating expenses would have decreased from \$20,171,285 for the year ended December 31, 2007 to \$17,523,367 for the year ended December 31, 2008. This represents a decrease in operating expenses of \$2,647,918 or 15.1% as explained below.

This decrease resulted primarily from a decrease in R&D expenses from \$17,429,652 for the year ended December 31, 2007 to \$13,160,812 for the year ended December 31, 2008, a decrease of \$4,268,840 or 24.5%. The reduced R&D expenses were incurred primarily as a result of decreasing the number of R&D subcontracts and other costs until sufficient funding is obtained. We recognized a total of \$1,836,787 of non-cash compensation for R&D stock based compensation for the year ended December 31, 2007 compared to \$632,252 for the year ended December 31, 2008. Without the non-cash stock based compensation, the R&D expenses decreased from \$15,592,865 for the year ended December 31, 2007 to \$12,528,560 for the year ended December 31, 2008; a decrease of \$3,064,305 or 19.7%.

The following table summarizes research and development expenses for the years ended December 31, 2008, 2007 and 2006 and since inception:

|  | Year Ended<br>December 31,<br>2008 | Year Ended<br>December 31,<br>2007 | Year Ended<br>December 31,<br>2006 | Total<br>Since<br>Inception |
|--|------------------------------------|------------------------------------|------------------------------------|-----------------------------|
| Research and development                     | \$ 13,160,812                      | \$ 17,429,652                      | \$ 6,989,804                       | \$ 43,256,722               |
| General                                      | \$ 931,441                         | \$ 892,456                         | \$ 378,113                         | \$ 5,106,630                |
| Protectan CBLB502 - non-medical applications | \$ 7,264,813                       | \$ 9,885,776                       | \$ 3,574,593                       | \$ 21,601,196               |
| Protectan CBLB502 - medical applications     | \$ 756,227                         | \$ 815,399                         | \$ 144,369                         | \$ 1,776,929                |
| Protectan CBLB612                            | \$ 974,459                         | \$ 1,127,248                       | \$ 466,715                         | \$ 3,130,374                |
| Curaxin CBLC102                              | \$ 1,741,194                       | \$ 2,712,521                       | \$ 1,372,998                       | \$ 6,466,483                |
| Other Curaxins                               | \$ 1,492,678                       | \$ 1,996,252                       | \$ 1,053,016                       | \$ 5,175,110                |

In addition, selling, general and administrative expenses decreased from \$10,530,938 for the year ended December 31, 2007 to \$5,890,153, for the year ended December 31, 2008. This represents a decrease of \$4,640,785 or 44.1%. These lower selling, general and administrative expenses were incurred as a result of a substantial reduction in the non-cash stock based compensation for the selling, general and administrative area of the Company. We recognized a total of \$5,952,517 of non-cash stock-based compensation for general and administrative compensation for the year ended December 31, 2007 compared to \$895,346 for the year ended December 31, 2008. Without the non-cash stock based compensation, the general and administrative expenses increased from \$4,578,421 for the year ended December 31, 2007 to \$4,994,807 for the year ended December 31, 2008; an increase of \$416,386 or 9.1%.

Until we introduce a product to the market, expenses in the categories mentioned above will be the largest component of our income statement.



## Liquidity and Capital Resources

We have incurred annual operating losses since our inception, and, as of March 31, 2009, we had an accumulated deficit of \$59,474,080. Our principal sources of liquidity have been cash provided by sales of our securities and government grants, contracts and agreements. Our principal uses of cash have been research and development and working capital. We expect our future sources of liquidity to be primarily government grants, equity financing, licensing fees and milestone payments in the event we enter into licensing agreements with third parties, and research collaboration fees in the event we enter into research collaborations with third parties.

Net cash used in operating activities totaled \$1,412,073 for the three months ended March 31, 2009, compared to \$4,243,435 used in operating activities for the three months ended March 31, 2008. Net cash used in operating activities totaled \$12,121,102 for the year ended December 31, 2008, compared to \$16,607,922 used in operating activities for the same period in 2007. For all periods, the decrease in cash used was primarily attributable to cost containment efforts and a more focused effort in research and development.

Net cash provided by investing activities was \$949,057 for the three months ended March 31, 2009 and net cash used in investing activities was \$205,813 for the three months ended March 31, 2008. Net cash used in investing activities was \$558,407 for the year ended December 31, 2008 and \$442,523 used for the same period in 2007. The increase in cash provided by investing activities resulted primarily from the sale of a short term investment.

Net cash used in financing activities totaled \$3,898,184 for the three months ended March 31, 2009, compared to net cash used in financing activities of \$660,558 for the three months ended March 31, 2008. The increase in cash provided by financing activities was attributed to the issuance of the Series D Preferred Shares and Warrants as compared to the cash used in financing activities to pay dividends on the Series B preferred during the first three months of 2008. Net cash used in financing activities totaled \$1,232,831 for the year ended December 31, 2008, compared to \$28,200,591 provided by financing activities for the year ended December 31, 2007. This decrease in cash provided by financing activities was attributed to the payment of dividends on the Series B preferred as compared to the proceeds from the issuance of Series B Preferred in connection with our Series B private placement offering in 2007.

Under our exclusive license agreement with CCF, we may be responsible for making milestone payments to CCF in amounts ranging from \$50,000 to \$4,000,000. The milestones and corresponding payments for Protectan CBLB502 and Curaxin CBLC102 are set forth below:

|  |              |
|--|--------------|
| File IND application for Protectan CBLB502 (completed February 2008)           | \$ 50,000    |
| Complete Phase I studies for Protectan CBLB502                                 | \$ 100,000   |
| File NDA application for Protectan CBLB502                                     | \$ 350,000   |
| Receive regulatory approval to sell Protectan CBLB502                          | \$ 1,000,000 |
| File IND application for Curaxin CBLC102 (completed May 2006)                  | \$ 50,000    |
| Commence Phase II clinical trials for Curaxin CBLC102 (completed January 2007) | \$ 250,000   |
| Commence Phase III clinical trials for Curaxin CBLC102                         | \$ 700,000   |
| File NDA application for Curaxin CBLC102                                       | \$ 1,500,000 |
| Receive regulatory approval to sell Curaxin CBLC102                            | \$ 4,000,000 |

As of March 31, 2009, we have paid \$50,000 for the milestone payment relating to the filing of the IND application for Curaxin CBLC102, \$250,000 for commencing Phase II clinical trials for Curaxin CBLC102 and \$50,000 for the filing of an IND application for Protectan CBLB502. The \$50,000 milestone payment for Curaxin CBLC102 was made May 3, 2007, the \$250,000 milestone was paid on August 21, 2007 and the \$50,000 milestone for Protectan CBLB502 was made on August 27, 2008 as per the terms of the agreement.

Our agreement with the CCF also provides for payment by us to CCF of royalty payments calculated as a percentage of the net sales of the drug candidates ranging from 1-2%, and sublicense royalty payments calculated as a percentage of the royalties received from the sublicenses ranging from 5-35%. However, any royalty payments and sublicense royalty payments assume that we will be able to commercialize our drug candidates, which are subject to numerous risks and uncertainties, including those associated with the regulatory approval process, our research and development process and other factors. Each of the above milestone payments, royalty payments and sublicense royalty payments was accrued until CCF owns less than five percent of our common stock on a fully-diluted basis or we receive more than \$30,000,000 in funding and/or revenues from sources other than CCF, which have occurred with the completion of the private offering in March 2007.

To meet our longer term cash requirements, we may be required to issue equity or debt securities or enter into other financial arrangements, including relationships with corporate and other partners. Depending upon market conditions, we may not be successful in raising sufficient additional capital for our long-term requirements. In such event, our business, prospects, financial condition and results of operations could be materially adversely affected.

The recent decline in the market value of certain securities backed by residential mortgage loans has led to a large liquidity crisis affecting the broader U.S. housing market, the financial services industry and global financial markets. Investors holding many of these and related securities have experienced substantial decreases in asset valuations and uncertain secondary market liquidity. Furthermore, credit rating authorities have, in many cases, been slow to respond to the rapid changes in the underlying value of certain securities and pervasive market illiquidity, regarding these securities. As a result, this “credit crisis” may have a potential impact on our ability to raise sufficient equity capital or substantially raise the cost of additional capital.

#### Impact of Inflation

We believe that our results of operations are not dependent upon moderate changes in inflation rates.

#### Impact of Exchange Rate Fluctuations

We believe that our results of operations are somewhat dependent upon moderate changes in foreign currency exchange rates. We have entered into a manufacturing agreement with a foreign third party to produce one of its drug compounds and are required to make payments in the foreign currency. Currently, our exposure primarily exists with the Euro and the Great British Pound or GBP. As of March 31, 2009, we are obligated to make payments under the agreement of 784,102 Euros and 88,673 GBP. We also expect to enter into additional agreements with foreign third parties, increasing the risk. As a result, our financial results could be affected by changes in foreign currency exchange rates. We have established means to purchase forward contracts to hedge against this risk. As of March 31, 2009, the Company has commitments of \$1,039,641 for Euros and \$126,714 for GBP given prevailing foreign currency exchange spot rates.

#### Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements.

Item 3: Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

Item 4: Controls and Procedures

Effectiveness of Disclosure

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2009 as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the "Exchange Act"). Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2009, our chief executive officer and chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective to assure that information required to be declared by us in reports that we file or submit under the Exchange Act is (1) recorded, processed, summarized, and reported within the periods specified in the SEC's rules and forms and (2) accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal quarter ended March 31, 2009 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II - Other Information

Item 1. Legal Proceedings

As of March 31, 2009, we were not a party to any litigation or other legal proceeding.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

(a) Previously reported on Form 8-K, filed with the Securities and Exchange Commission on March 30, 2009.

(b) None.

(c) None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Submission of Matters to a Vote of Security Holders

None.

Item 5. Other Information

None.

Item 6. Exhibits

(a) The following exhibits are included as part of this report:

| Exhibit<br>Number | Description of Document   |
|-------------------|---|
| 31.1              | Certification of Michael Fonstein, Chief Executive Officer, pursuant to Section 302 of the Sarbanes Oxley Act of 2002.      |
| 31.2              | Certification of John A. Marhofer, Jr., Chief Financial Officer, pursuant to Section 302 of the Sarbanes Oxley Act of 2002. |
| 32.1              | Certification Pursuant To 18 U.S.C. Section 1350  |

Signatures

In accordance with 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 thereunto duly authorized.

CLEVELAND BIOLABS, INC.

Dated: May 14, 2009

By: /s/ MICHAEL FONSTEIN  
Michael Fonstein  
Chief Executive Officer  
(Principal Executive Officer)

Dated: May 14, 2009

By: /s/ JOHN A. MARHOFER, JR.  
John A. Marhofer, Jr.  
Chief Financial Officer  
(Principal Financial Officer)