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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, 2012

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: 001-33958

Galena Biopharma, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**20-8099512**
(State of incorporation)	**(I.R.S. Employer Identification No.)**

310 N. State Street, Suite 208, Lake Oswego, OR 97034
(Address of principal executive office) (Zip code)

Registrant's telephone number: (855) 855-4253

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 it 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 time that the registrant was required to submit and post such files).

Yes ☒ No ☐

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 ☐	(Do not check if a smaller reporting company)	Smaller reporting company	☒

Indicate by checkmark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☒

As of May 11, 2012, Galena Biopharma, Inc. had 65,643,905 shares of common stock, $0.0001 par value, outstanding, exclusive of treasury shares.

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GALENA BIOPHARMA, INC.

FORM 10-Q — QUARTER ENDED MARCH 31, 2012

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PART I

ITEM 1. FINANCIAL STATEMENTS

GALENA BIOPHARMA, INC.
(A Development Stage Company)

CONDENSED CONSOLIDATED BALANCE SHEETS
(Amounts in thousands, except share and per share data)
(Unaudited)

	March 31, 2012	December 31, 2011
ASSETS		
Current assets:		
Cash and cash equivalents	$ 8,701	$ 11,433
Restricted cash	101	101
Prepaid expenses	290	276
Total current assets	9,092	11,810
Equipment and furnishings, net	351	393
In-process research and development	12,864	12,864
Goodwill	5,898	5,898
Deposits	3	3
Total assets	$ 28,208	$ 30,968
LIABILITIES AND STOCKHOLDERS' (DEFICIT) EQUITY		
Current liabilities:		
Accounts payable	$ 2,581	$ 2,155
Accrued expenses and other current liabilities	3,532	2,984
Current maturities of capital lease obligations	24	35
Convertible notes payable, current	—	500
Fair value of warrants potentially settleable in cash	20,357	3,746
Current contingent purchase price consideration	898	1,782
Total current liabilities	27,392	11,202
Capital lease obligations, net of current maturities	36	32
Convertible notes payable, non-current	1,000	—
Deferred tax liability, non-current	5,053	5,053
Contingent purchase price consideration, net of current portion	5,297	4,569
Total liabilities	38,778	20,856
Stockholders' (deficit) equity:		
Preferred stock, $0.0001 par value; 5,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.0001 par value; 125,000,000 shares authorized; 50,082,148 shares issued and 49,407,148 shares outstanding and 47,811,453 shares issued and 47,136,453 outstanding at March 31, 2012 and December 31, 2011, respectively	5	5
Additional paid-in capital	85,263	81,184
Deficit accumulated during the developmental stage	(91,989)	(67,228)
Less treasury shares at cost, 675,000 shares	(3,849)	(3,849)
Total stockholders' (deficit) equity	(10,570)	10,112
Total liabilities and stockholders' equity	$ 28,208	$ 30,968

The accompanying notes are an integral part of these consolidated financial statements.

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GALENA BIOPHARMA, INC.
(A Development Stage Company)

CONDENSED CONSOLIDATED STATEMENTS OF EXPENSES
(Amounts in thousands, except share and per share data)
(Unaudited)

	For the Three Months Ended March 31, 2012	For the Three Months Ended March 31, 2011	Period from January 1, 2003 (Date of Inception) to March 31, 2012
Expenses:			
Research and development expense	$ 3,392	$ 1,941	$ 40,817
Research and development employee stock-based compensation expense	72	246	3,345
Research and development non-employee stock-based compensation expense (income)	157	(31)	6,150
Fair value of common stock issued in exchange for research and development expense	50	—	4,004
Total research and development expense	3,671	2,156	54,316
General and administrative expense	1,458	1,921	29,431
General and administrative employee stock-based compensation expense	198	1,099	9,788
Fair value of common stock warrants issued for general and administrative expense	148	76	2,550
Fair value of common stock issued in exchange for general and administrative expense	135	23	489
Total general and administrative expense	1,939	3,119	42,258
Operating loss	(5,610)	(5,275)	(96,574)
Interest (expense) income	(37)	(1)	621
Other (expense) income	(19,114)	1,435	(6,077)
Net loss	$ (24,761)	$ (3,841)	$ (102,030)
Net loss per common share:			
Basic and diluted loss per share	$ (0.52)	$ (0.19)	N/A
Weighted average common shares outstanding:			
Basic and diluted	47,967,499	20,316,170	N/A

The accompanying notes are an integral part of these consolidated financial statements.

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GALENA BIOPHARMA, INC.
(A Development Stage Company)

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in thousands)
(Unaudited)

	For the Three Months Ended March 31, 2012	For the Three Months Ended March 31, 2011	Period from January 1, 2003 (Date of Inception) through March 31, 2012
Cash flows from operating activities:			
Net loss	$ (24,761)	$ (3,841)	$ (102,030)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization expense	42	37	706
Loss on disposal of equipment	—	—	19
Non-cash rent expense	—	—	29
Accretion and receipt of bond discount	—	—	35
Non-cash share-based compensation	427	1,314	19,285
Loss on exchange of equity instruments	—	—	900
Fair value of shares mandatorily redeemable for cash upon exercise of warrants	—	—	(785)
Fair value of common stock warrants issued in exchange for services	148	76	2,550
Fair value of common stock issued in exchange for services	185	23	539
Change in fair value of common stock warrants issued in connection with various equity financings	18,270	(1,435)	6,198
Fair value of common stock issued in exchange for licensing rights	—	—	3,954
Change in fair value of contingent purchase consideration	844	—	735
Changes in assets and liabilities:			
Prepaid expenses and other current assets	(14)	(133)	(263)
Accounts payable	426	2	1,650
Due to former parent	—	—	(207)
Accrued expenses and other current liabilities	(452)	930	3,022
Net cash used in operating activities	(4,885)	(3,027)	(63,663)
Cash flows from investing activities:			
Change in restricted cash	—	—	(101)
Cash received in acquisition	—	—	168
Purchase of short-term investments	—	—	(37,532)
Maturities of short-term investments	—	—	37,497
Cash paid for purchase of equipment and furnishings	—	(40)	(739)
Disposal of equipment and furnishings	—	—	(1)
Cash refunded (paid) for lease deposit	—	—	(45)
Net cash used in investing activities	—	(40)	(753)
Cash flows from financing activities:			
Net proceeds from issuance of common stock	385	7,314	65,367
Cash paid for repurchase of common stock	—	—	(3,849)
Net proceeds from exercise of common stock options	—	—	610
Net proceeds from exercise of common stock warrants	1,236	—	1,386
Common stock issued in connection with ESPP	39	—	54
Net proceeds from issuance of convertible notes payable	500	—	1,000
Repayments of capital lease obligations	(7)	(23)	(217)
Cash advances from former parent company, net	—	—	8,766
Net cash provided by financing activities	2,153	7,291	73,117
Net (decrease) increase in cash and cash equivalents	(2,732)	4,224	8,701
Cash and cash equivalents at the beginning of period	11,433	6,891	—
Cash and cash equivalents at end of period	$ 8,701	$ 11,115	$ 8,701
Supplemental disclosure of cash flow information:			
Cash received during the period for interest	$ 1	$ —	$ 727
Cash paid during the period for interest	$ 1	$ 1	$ 12
Supplemental disclosure of non-cash investing and financing activities:			
Settlement of corporate formation expenses in exchange for common			

stock	$ —	$ —	$ 978
Fair value of warrants issued in connection with common stock recorded as a cost of equity	$ —	$ 4,212	$ 18,038
Issuance of common stock in exchange for outstanding warrants	—	—	$ 3,120
Fair value of shares mandatorily redeemable for cash upon the exercise of warrants	$ —	$ —	$ 785
Reclassification of warrant liability upon exercise	$ 1,659	$ —	$ 1,659
Allocation of management expenses	$ —	$ —	$ 551
Equipment and furnishings exchanged for common stock	$ —	$ —	$ 48
Equipment and furnishings acquired through capital lease	$ —	$ 44	$ 277
Value of restricted stock units and common stock issued in lieu of bonuses included in accrued expenses	$ —	$ 427	$ 634
Non-cash lease deposit	$ —	$ —	$ 50

The accompanying notes are an integral part of these consolidated financial statements.

GALENA BIOPHARMA, INC.
(A Development Stage Company)

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Description of Business and Basis of Presentation

Galena Biopharma, Inc. ("we," "us," "our," "Galena" or the "Company") is a biopharmaceutical company focused on developing innovative, next-generation cancer immunotherapies which address major unmet medical needs to advance care. Galena is developing innovative, peptide antigen-based "off the shelf" cancer immunotherapies for potential application to treatment of large populations of Cancer Survivors. Peptide vaccines have several potential clinical advantages over existing cancer treatments including excellent safety profiles, long-lasting protection through immune system activation, as well as an acceptable mode of administration (intradermal injection). A key differentiator in Galena's approach is the focus on "minimal residual disease" that may remain in Cancer Survivors. The strategy is to prevent recurrence in early stage patient groups who may harbor "occult" residual cancer cells that are not detectable by current imaging and biomarkers, and despite adjuvant therapy and radiation therapy will relapse in significant numbers over time.

Our lead product candidate, NeuVax ™ (E75), targets the HER2 tumor associated antigen peptide and is being developed to prevent or delay breast cancer recurrence in a Phase 3 clinical trial under an FDA approved SPA (Special Protocol Assessment) and in combination with Herceptin ® (trastuzumab: Genentech/Roche) in a Phase 2 clinical trial. Our second product candidate, Folate Binding Protein (FBP), a targeted vaccine which consists of the E39 peptide over-expressed (20-80 fold) in more than 90% of ovarian and endometrial cancers, is currently in a Phase 1 clinical trial.

The Company was incorporated as Argonaut Pharmaceuticals, Inc., in Delaware, on April 3, 2006. The Company changed its name to RXi Pharmaceuticals Corporation on November 28, 2006.

We acquired Apthera Inc., or "Apthera," and our NeuVax product candidate in April 2011. Prior to that time, we were engaged primarily in conducting discovery research and preclinical development activities based on RNAi. Our acquisition of Apthera followed from the determination by our board of directors to broaden our strategic direction by giving us access to a late-stage clinical candidate, NeuVax. In connection with our acquisition of Apthera, we reduced the scope of our RNAi activities.

On September 26, 2011, the Company changed its name from RXi Pharmaceuticals Corporation to Galena Biopharma, Inc. in connection with the Company's separation into two companies: (i) Galena, which will operate as a late-stage oncology drug development company; and (ii) RXi Pharmaceuticals Corporation, or RXi, which will continue to develop novel RNAi-based therapies utilizing our historical RNAi assets. RXi was initially incorporated as RNCS, Inc. and assumed the name RXi Pharmaceuticals Corporation in conjunction with the change in the Company's name to Galena. On April 27, 2012, the planned spin-out of RXi was completed (See Note 4).

The Company has not generated any revenue from inception through March 31, 2012 and is considered a development-stage company for accounting purposes. The Company may not generate product revenue in the foreseeable future, if ever. The Company expects to incur significant operating losses as it advances its product candidates through the drug development and regulatory process. The Company expects to continue to devote a substantial portion of its resources to research and development programs. As a result of the costs expected to be incurred in connection with our recently commenced clinical trials of NeuVax and FBP, the Company expects that our research and development expense will increase significantly from historic levels for the foreseeable future. The Company will need to generate significant revenue to achieve profitability and might never do so. In the absence of product revenue, our potential sources of operational funding are expected to be the proceeds from equity financings, funded research and development payments and payments received under partnership and collaborative agreements. There is no guarantee that additional funding will be available to the Company on acceptable terms, or at all. If the Company fails to obtain additional funding when needed, it would be forced to scale back or terminate operations or to seek to merge with or to be acquired by another company.

Use of Estimates

The preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States of America 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 expenses during the reporting period. Actual results could differ from these estimates.

Derivative Financial Instruments

During the normal course of business, from time to time, the Company issues warrants and options to vendors as consideration to perform services. It may also issue warrants as part of financing transactions. The Company does not enter into any derivative contracts for speculative purposes. The Company recognizes all derivatives, including warrants, as assets or liabilities measured at fair value with changes in fair value of derivatives reflected as current period income or loss unless the derivatives qualify for hedge accounting and are accounted for as such. In accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 815-40, " *Derivatives and Hedging — Contracts in Entity's Own Stock* ", the value of some of our warrants is required to be recorded as a liability, as the holders have an option to put the warrants back to the Company in specified events (see Note 9).

Principles of Consolidation

The consolidated financial statements include the accounts of Galena and its consolidated subsidiaries. All material intercompany accounts have been eliminated in consolidation.

Comprehensive Loss

The Company’s comprehensive loss is equal to its net loss for all periods presented.

2. Recent Accounting Pronouncements

In May 2011, the FASB issued Accounting Standards Updated ("ASU") 2011-04 , *Fair Value Measurement* (Topic 820): *Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs* , a new accounting standard that clarifies the application of certain existing fair value measurement guidance and expands the disclosures for fair value measurements that are estimated using significant unobservable (Level 3) inputs. This new standard is effective on a prospective basis for annual and interim reporting periods beginning on or after December 15, 2011. The Company's adoption of this new standard did not have a material impact on the Company's consolidated financial statements.

In June 2011, the FASB issued ASU 2011-05, *Comprehensive Income* (Topic 220): *Presentation of Comprehensive Income* , a new accounting standard that eliminates the option to present the components of other comprehensive income as part of the statement of changes in stockholders' equity, requires the consecutive presentation of the statement of net income and other comprehensive income and requires an entity to present reclassification adjustments on the face of the financial statements from other comprehensive income to net income. The amendments in this new standard do not change the items that must be reported in other comprehensive income or when an item of other comprehensive income must be reclassified to net income nor do the amendments affect how earnings per share is calculated or presented. This new standard is required to be applied retrospectively and is effective for fiscal years and interim periods within those years beginning after December 15, 2011. As this new standard only requires enhanced disclosure, the adoption of this standard did not impact the Company's consolidated financial statements.

3. Apthera Acquisition

On April 13, 2011, the Company completed its acquisition of Apthera, Inc., a Delaware corporation ("Apthera"), under an Agreement and Plan of Merger ("Merger Agreement") entered into on March 31, 2011. Subject to the terms and conditions of the Merger Agreement, the Company's wholly owned subsidiary formed for this purpose was merged with and into Apthera, with Apthera surviving as a wholly-owned subsidiary of the Company. Under the Merger Agreement, the Company issued to Apthera's stockholders approximately 5.0 million shares of common stock of the Company (the "Aggregate Stock Consideration") and agreed to make future contingent payments of up to $32 million based on the achievement of certain development and commercial milestones relating to the Company's NeuVax™ product candidate. The contingent consideration is payable, at the election of the Company, in either cash or additional shares of common stock, provided that the Company may not issue any shares in satisfaction of any contingent consideration unless it has first obtained approval of its stockholders in accordance with Rule 5635(a) of the NASDAQ Marketplace Rules.

In connection with the Merger Agreement, the Company deposited with a third-party escrow agent certificates representing 10% of the Aggregate Stock Consideration, which shares will be available to compensate the Company and related parties for certain indemnifiable losses as described in the Merger Agreement. On October 13, 2011, the escrow agent released from the escrow 5% of the Aggregate Stock Consideration, or 248,705 shares. The remaining Aggregate Stock Consideration held with the escrow agent was released in April 2012 (see Note 11).

The Company's acquisition of Apthera was in concert with the decision by the Company's Board of Directors to diversify its development programs and to become a late stage clinical development company. The Company does not expect any of its goodwill to be deductible for tax purposes.

The purchase price consideration and allocation of purchase price of Apthera were as follows:

	(in 000's)
Calculation of allocable purchase price:	
Fair value of shares issued at closing including escrowed shares expected to be released	$ 6,367(i)
Estimated value of earn-out	6,460
Total allocable purchase price	$12,827
Allocation of purchase price:	
Cash	$ 168
Prepaid expenses and other current assets	14
Equipment and furnishings	11
Goodwill	5,898
In-process research and development	12,864
Accounts payable	(931)
Accrued expenses and other current liabilities	(143)
Notes payable	(1)
Deferred tax liability, non-current	(5,053)
	$12,827

(i) The value of the Company's common stock was based upon a per share value of $1.28, the closing price of the Company's common stock as of the close of business on April 13, 2011.

The estimated value of the earn-out consideration of $6.5 million originally recorded was based on the expected probability of achievement in the future of certain development and commercial milestones relating to the Company's NeuVax product candidate and then applying a discount rate, based on a corporate debt interest rate index publicly issued, to the expected future payments. The expected timing of the milestones, the probability of success for each milestone and the discount rates applied are updated quarterly using the most current information to measure the contingent liability as of the reporting date. On January 19, 2012, the first milestone of $1,000,000 of this contingent liability was triggered with the first patient enrolled in our Phase 3 PRESENT clinical trial of NeuVax for breast cancer. The Company issued 1,315,789 restricted shares of common stock in payment of the first milestone. The certificates evidencing the milestone shares have been deposited with a third party escrow agent. The milestone shares will be released to the Apthera shareholders from escrow if the issuance of the milestone shares is approved by the stockholders of the Company at our 2012 annual stockholders meeting. Since the release of the shares is subject to stockholder approval, the $1,000,000 has been recorded in accrued expenses and other current liabilities at March 31, 2012 in the accompanying condensed consolidated balance sheet.

If stockholder approval is obtained, the number of milestone shares will be subject to increase to the extent that $0.76 (*i.e* ., the closing price of the Company's common stock as reported on The NASDAQ Capital Market on January 18, 2012, the day prior to achievement of its first milestone, used for purposes of determining the number of milestone shares) is greater than the closing price of common stock as of the most recent trading day prior to the receipt of stockholder approval. Whether or not stockholder approval is obtained, in addition to the release from escrow of the milestone shares or the payment in cash of the initial milestone, as the case may be, the Company will pay concurrently to the former Apthera shareholders in cash an interest factor of ten percent (10%) per annum on the amount of the final milestone from February 10, 2012 through the day immediately prior to the release of the milestone shares from escrow or the cash payment, as the case may be, less certain legal fees of the stockholder representative to be paid or reimbursed by the Company. As of March 31, 2012, $13,699 of interest had been accrued on this note and is included in accrued expenses and other current liabilities in the accompanying condensed consolidated balance sheet.

The increase in the fair value of the contingent liability during the three months ended March 31, 2012 is $844,000, which was included in other income (expense) in the accompanying consolidated statements of expenses. The fair value of the contingent liability at March 31, 2012 was $6,195,000. Of this amount, $898,000 was recorded as a current contingent liability.

The following presents the pro forma net loss and pro forma net loss per common share for the three months ended March 31, 2011:

	For the Three Months Ended March 31, 2011
Net loss	$ (4,397)
Net loss per common share	$ (0.17)
Weighted average shares outstanding	25,290,260

4. RXi Spin-Out

Contribution Agreement

On September 24, 2011, the Company entered into a Contribution Agreement ("Contribution Agreement") with RXi pursuant to which we assigned and contributed to RXi substantially all of the Company's RNAi-related technologies and assets. The contributed assets consist primarily of our novel RNAi compounds and licenses relating to our RNAi technologies, as well as the lease of our Worcester, Massachusetts laboratory facility, fixed assets and other equipment located at the facility and our employment arrangements with certain scientific, corporate and administrative personnel who have become employees of RXi. The Company also contributed $1.5 million of cash to the capital of RXi.

Pursuant to the Contribution Agreement, RXi assumed certain accrued expenses of our RXI-109 development program and all subsequent obligations under the contributed licenses, employment arrangements and other agreements. RXi has agreed to make future milestone payments to us of up to $45 million, consisting of two one-time payments of $15 million and $30 million, respectively, if RXi achieves annual net sales equal to or greater than $500 million and $1 billion, respectively, of any covered products that may be developed with the contributed RNAi technologies.

In the Contribution Agreement, the Company made customary representations and warranties to RXi regarding the contributed assets and other matters, and the parties have agreed to customary covenants regarding the conduct of RXi's business pending the spin-off of RXi. The parties also have agreed to indemnify each other against losses arising from a breach of their respective representations, warranties and covenants set forth in the Contribution Agreement.

Securities Purchase Agreement

On September 24, 2011, the Company also entered into a Securities Purchase Agreement ("Securities Purchase Agreement") with RXi and two institutional Investors (the "Investors"), pursuant to which the Investors agreed to purchase a total of $9,500,000 of Series A Preferred Stock of RXi ("RXi Preferred Stock") at the closing of the spin-off of RXi, and to lend up to $1,500,000 to RXi to fund its operations between signing and closing (the "Bridge Loan"). The outstanding principal and accrued interest from the Bridge Loan will, except under certain circumstances described below, be converted into RXi Preferred Stock at the closing of the spin-off of RXi and will represent a portion of the $9,500,000 total investment, which is referred to herein as the "RXi financing." The RXi financing and the spin-off of RXi were subject to customary closing conditions, including the registration under the Securities Act of 1933, as amended (the "Securities Act"), of the distribution by us of the spin-off shares.

The RXi Preferred Stock will be convertible by a holder at any time into shares of RXi common stock, except to the extent that the holder would own more than 9.999% of the shares of RXi common stock outstanding immediately after giving effect to such conversion. Without regard to this conversion limitation, the shares of the Preferred Stock to be held by the Investors upon completion of the RXi financing and the spin-off of RXi will be convertible into shares of RXi common stock representing approximately 83% of the shares of RXi common stock that would be outstanding, assuming the conversion in full of the Preferred Stock, which we refer to as the "as-converted common stock." The Company will own approximately 12% of the as-converted common stock immediately prior to the spin-off of RXi, and Advirna, LLC, a licensor of RXi, will be issued the remaining 5% of the as-converted common stock pursuant to the agreement with Advirna, LLC as described below.

Spin-Off

The Company agreed in the Securities Purchase Agreement to undertake to distribute to our stockholders on a share-for-share basis approximately 8% of the as-converted common stock of RXi, subject to the registration of the distribution of such shares under the Securities Act of 1933 and other conditions, which distribution was completed on April 27, 2012 (see Note 11). The Company has retained 4% of the as-converted common stock, and has agreed, in the Securities Purchase Agreement, not to sell or dispose of the Company's shares of RXi common stock for a one-year period following completion of the spin-off of RXi. Under the Securities Purchase Agreement, one share of RXi was distributed as a dividend on each share of Galena that is issued and outstanding as of the record date for the distribution of April 23, 2012.

Purchase Agreement Terms and Conditions

In the Securities Purchase Agreement, the parties have made customary representations and warranties to the other parties and have agreed to customary covenants regarding the parties' actions in connection with the spin-off of RXi and other matters, including the filing of a resale registration statement registering a portion of the common stock underlying the conversion of the Preferred Stock. The parties also have agreed to indemnify each other against losses arising from a breach of their respective representations, warranties and covenants set forth in the Securities Purchase Agreement. Per the agreement, upon the closing of the transaction, on April 27, 2012, RXi reimbursed the Company and the Investors in the amount of $300,000 and $100,000, respectively, for transaction costs relating to the Contribution Agreement, the Securities Purchase Agreement and the transactions called for by the agreements.

Bridge Loan

Pursuant to the Securities Purchase Agreement, the Investors provided Bridge Loans by purchasing $1,000,000 of secured convertible promissory notes of RXi ("RXi convertible notes"). The RXi convertible notes will, except as described below, be convertible into shares of RXi Preferred Stock at a conversion price of $1,000 per share. The RXi convertible notes accrued interest at a rate of 7% per annum (or 18% per annum in the case of an event of default) and matured on April 27, 2012, the closing date. As of March 31, 2012, RXi had $1,000,000 of RXi convertible notes outstanding. As the Company was relieved of this obligation upon the spin-out, the amount has been recorded as a long-term liability as of March 31, 2012. Approximately $21,000 of interest has been recorded in accrued expenses and other current liabilities at March 31, 2012 in the accompanying condensed consolidated balance sheet.

Advirna Agreement

As part of the closing transaction as detailed in the Contribution Agreement and Securities Purchase Agreement, RXi entered into an agreement with Advirna, LLC, which the Company refers to as "Advirna," a company affiliated with Anastasia Khvorova, Ph.D., RXi's former Senior Vice President and Chief Scientific Officer. In the agreement, Advirna has agreed to amend its existing patent and technology assignment agreement with RXi to eliminate all clinical milestone and royalty payments to Advirna under the amended agreement; obligations remain to make an annual $100,000 maintenance fee and a one-time milestone payment of $350,000 to Advirna upon the issuance of a patent with valid claims covering the assigned technology. Additionally, RXi will be required to pay a 1% royalty to Advirna for any licensing revenue received by RXi on the license of the assigned Advirna technology. In exchange, RXi issued to Advirna upon the closing transaction a number of shares of RXi common stock equal to 5% of the as-converted common stock of RXi.

The transactions contemplated by the Securities Purchase Agreement were completed in April 2012 (see Note 11).

5. Fair Value Measurements

The Company follows the provisions of FASB ASC Topic 820, *"Fair Value Measurements and Disclosures"* ("ASC 820") for the Company's financial assets and liabilities that are re-measured and reported at fair value at each reporting period, and are re-measured and reported at fair value at least annually using a fair value hierarchy that is broken down into three levels. Level inputs are as defined as follows:

Level 1 — quoted prices in active markets for identical assets or liabilities.

Level 2 — other significant observable inputs for the assets or liabilities through corroboration with market data at the measurement date.

Level 3 — significant unobservable inputs that reflect management's best estimate of what market participants would use to price the assets or liabilities at the measurement date.

The Company categorized its cash equivalents as a Level 1 hierarchy. The valuation for Level 1 was determined based on a "market approach" using quoted prices in active markets for identical assets. Valuations of these assets do not require a significant degree of judgment. The Company categorized its warrants potentially settled in cash as a Level 2 hierarchy. The warrants are measured at fair market value on a recurring basis and are being marked to market each quarter-end until they are settled. The contingent purchase price consideration is categorized as a Level 3 hierarchy and is measured at its estimated fair value on a recurring basis and is adjusted at each quarter-end until it is completely settled. The contingent price consideration is valued based on the expected timing of milestones, the expected probability of success for each milestone and the updated discount rates based on a corporate debt interest rate index publicly issued.

Description	March 31, 2012	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Assets:				
Cash equivalents	$ 7,453	$7,453	$ —	$ —
Total assets	$ 7,453	$7,453	$ —	$ —
Liabilities:				
Warrants potentially settleable in cash	$20,357	$ —	$ 20,357	$ —
Contingent purchase price consideration	6,195	—	—	6,195
Total liabilities	$26,552	$ —	$ 20,357	$ 6,195

Description	December 31, 2011	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Assets:				
Cash equivalents	$ 11,433	$11,433	$ —	$ —
Total assets	$ 11,433	$11,433	$ —	$ —
Liabilities:				
Warrants potentially settleable in cash	$ 3,746	$ —	$ 3,746	$ —
Contingent purchase price consideration	6,351	—	—	6,351
Total liabilities	$ 10,097	$ —	$ 3,746	$ 6,351

Fair Value of Financial Instruments

The carrying amounts reported in the balance sheet for cash equivalents, accounts payable, capital leases and convertible notes payable approximate their fair values due to their short-term nature and market rates of interest.

6. Stock Based Compensation

The Company follows the provisions of the FASB ASC Topic 718, " *Compensation — Stock Compensation* " ("ASC 718"), which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees, non-employee directors, and consultants, including employee stock options. Stock compensation expense based on the grant date fair value estimated in accordance with the provisions of ASC 718 is recognized as an expense over the requisite service period.

For stock options granted as consideration for services rendered by non-employees, the Company recognizes compensation expense in accordance with the requirements of FASB ASC Topic 505-50, " *Equity Based Payments to Non-Employees.*"

Non-employee option grants that do not vest immediately upon grant are recorded as an expense over the vesting period of the underlying stock options. At the end of each financial reporting period prior to vesting, the value of these options, as calculated using the Black-Scholes option-pricing model, will be re-measured using the fair value of the Company's common stock and the non-cash compensation recognized during the period will be adjusted accordingly. Since the fair market value of options granted to non-employees is subject to change in the future, the amount of the future compensation expense will include fair value re-measurements until the stock options are fully vested.

The Company is currently using the Black-Scholes option-pricing model to determine the fair value of all its option grants. For option grants issued in the three month period ended March 31, 2012 and 2011, the following assumptions were used:

	For The Three Months Ended March 31,	
	2012	2011
Weighted average risk-free interest rate	1.06%	2.33%
Weighted average expected volatility	75.69%	112.95%
Weighted average expected lives (years)	6.10	5.76
Weighted average expected dividend yield	0.00%	0.00%

The weighted average fair value of options granted during the three month period ended March 31, 2012 and 2011 was $0.48 and $1.20 per share, respectively.

The Company's expected common stock price volatility assumption is based upon the volatility of a basket of comparable companies. The expected life assumptions for employee grants were based upon the simplified method provided for under ASC 718-10. The expected life assumptions for non-employees were based upon the contractual term of the option. The dividend yield assumption of zero is based upon the fact that the Company has never paid cash dividends and presently has no intention of paying cash dividends. The risk-free interest rate used for each grant was also based upon prevailing short-term interest rates. The Company has estimated an annualized forfeiture rate of 15.0% for options granted to its employees, 8.0% for options granted to senior management and no forfeiture rate for the directors. RXi will record additional expense if the actual forfeitures are lower than estimated and will record a recovery of prior expense if the actual forfeiture rates are higher than estimated.

The following table summarizes stock option activity from January 1, 2012 through March 31, 2012:

	Total Number of Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value
Outstanding at January 1, 2012	6,163,137	$ 3.03	$ —
Granted	1,275,000	0.72	1,912,500
Exercised	—	—	—
Cancelled	—	—	—
Outstanding at March 31, 2012	7,438,137	$ 2.63	$5,308,950
Options exercisable at March 31, 2012	4,985,548	$ 3.31	$2,365,593

The aggregate intrinsic values of outstanding and exercisable options at March 31, 2012 were calculated based on the closing price of the Company's common stock on March 31, 2012 of $2.22 per share less the exercise price of those shares. The aggregate intrinsic values of options exercised was calculated based on the difference between the exercise price of the underlying awards and the quoted price of the Company's common stock on the date of exercise.

7. Net Loss Per Share

The Company accounts for and discloses net loss per common share in accordance with FASB ASC Topic 260 " *Earnings per Share.*" Basic net loss per common share is computed by dividing net loss attributable to common stockholders by the weighted average number of common shares outstanding. Diluted net loss per common share is computed by dividing net loss attributable to common stockholders by the weighted average number of common shares that would have been outstanding during the period assuming the issuance of common shares for all potential dilutive common shares outstanding. Potential common shares consist of shares issuable upon the exercise of stock options and warrants. Because the inclusion of potential common shares would be anti-dilutive for all periods presented diluted net loss per common share is the same as basic net loss per common share.

The following table sets forth the potential common shares excluded from the calculation of net loss per common share because their inclusion would be anti-dilutive:

	March 31,	
	2012	2011
Options to purchase common stock	7,438,137	6,065,264
Warrants to purchase common stock	13,116,698	8,250,642
Total	20,554,835	14,315,906

8. License Agreements

As part of its business, the Company enters into licensing agreements, which often require milestone and royalty payments based on the progress of the asset through development stages. Milestone payments may be required, for example, upon approval of the product for marketing by a regulatory agency. In certain agreements, the Company is required to make royalty payments based upon a percentage of product sales.

An individual milestone payment required under the licensing arrangements may be material, and in the event that multiple milestones are reached in the same period, the aggregate payments associated with the milestones could adversely affect the results of operations or affect the comparability of our period-to-period results. In addition, these licensing arrangements often give the Company the discretion to unilaterally terminate development of the product, which would allow the Company to avoid making the contingent payments; however, the Company is unlikely to cease development if the compound successfully achieves clinical testing objectives. The Company's contractual obligations relating to minimum annual maintenance fees and milestone payments have not changed significantly from December 31, 2011.

9. Stockholders' Equity

Preferred Stock — The Company has authorized up to 5,000,000 shares of preferred stock, $0.0001 par value per share, for issuance. The preferred stock will have such rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be determined by the Company's board of directors upon its issuance. To date, the Company has not issued any preferred shares.

Common Stock — The Company has authorized up to 125,000,000 shares of common stock, $0.0001 par value per share, for issuance. Shares of common stock are reserved as follows:

	As of March 31, 2012
Warrants outstanding	13,116,698
Stock options outstanding	7,438,137
Options reserved for future issuance under the Company's 2007 Incentive Plan	24,717
Total reserved for future issuance	20,579,552

Common Stock Warrants — On August 7, 2008, the Company issued 190,000 warrants to an investment bank as consideration for investment and business advisory services. The warrants have an exercise price of $7.036 per share and expire 5 years from the date of issuance, on August 7, 2013. The warrants vested as to 94,000 shares upon issuance, and vested at a rate of 32,000 shares per month starting on the 90 day anniversary of issuance, and are exercisable for a period of five years. All shares were vested and compensation cost was fully recorded at December 31, 2009. The Company also agreed to give the holder of the warrants unlimited "piggy back" registration rights with respect to the shares of the Company's common stock underlying the warrants in any registration statement the Company files in connection with an underwritten offering of its common stock.

On January 29, 2009, the Company issued 142,500 warrants to an investment bank as consideration for investment and business advisory services. The warrants have an exercise price of $4.273 per share and expire five years from the date of issuance on January 29, 2014. The warrants vested as to 71,250 shares upon issuance, and vested at a rate of 23,750 shares per month starting on the 90 day anniversary of issuance, and are exercisable for a period of five years. All shares were vested and compensation expense was fully recorded at December 31, 2009. The Company has also agreed to give the holder of the warrants unlimited "piggy back" registration rights with respect to the shares of Common Stock underlying the warrants in any registration statement the Company files in connection with an underwritten offering of the common stock.

In connection with the 2009 Offering, the Company issued warrants to purchase 978,142 shares of the Company's common stock. Details of the transaction can be found under the heading "2009 Registered Direct Offering" below.

In connection with the 2010 Offering, the Company issued warrants to purchase 540,000 shares of the Company's common stock. Details of the transaction can be found under the heading "2010 Registered Direct Offering" below.

In connection with the March 2011 Offering, the Company issued warrants to purchase 6,000,000 shares of the Company's common stock. Details of the transaction can be found under the heading "March 2011 Registered Direct Offering" below.

In connection with the April 2011 Offering, the Company issued warrants to purchase 11,950,000 shares of the Company's common stock. Details of the transaction can be found under the heading "April 2011 Registered Direct Offering" below.

During 2011, the Company issued 150,000 warrants in exchange for business advisory services. The Company recognizes the total fair value of these warrants as stock compensation expense, over the requisite service period. The Company used the Black-Scholes option pricing model to compute the estimated fair value of these warrant grants on the date of the award. Total expense related to these warrants was $108,000 in 2011 and compensation expense was fully recorded as of December 31, 2011.

During the quarter ended March 31, 2012, the Company issued 400,000 warrants in exchange for business advisory services. The Company recognizes the total fair value of these warrants as stock compensation expense, over the requisite service period. The Company used the Black-Scholes option pricing model to compute the estimated fair value of these warrant grants which are marked to market over the vesting period of the related warrants. Total expense related to these warrants was $148,000 for the quarter ended March 31, 2012.

Private Investment in Public Equity — On June 24, 2008, the Company entered into a Securities Purchase Agreement pursuant to which the Company issued and sold to certain investors an aggregate of 1,073,299 shares of common stock in a private placement at a price of $8.12 per share. Net proceeds to the Company were approximately $7.9 million.

2009 Registered Direct Offering — On March 17, 2009, the Company entered into a placement agency agreement, which was subsequently amended on May 26, 2009 and July 22, 2009, with Rodman & Renshaw, LLC ("Rodman") as the exclusive placement agent, relating to a proposed offering by the Company of new securities to potential investors. On July 30, 2009, the Company entered into definitive agreements for the sale and issuance by the Company to certain investors of 2,385,715 units, with each unit consisting of one share of the Company's common stock and a warrant to purchase 0.40 of a share of common stock, at a purchase price of $3.50 per unit (the "2009 Offering"). The 2009 Offering closed on August 4, 2009. The warrants have an exercise price of $4.50 per share and are exercisable for a period beginning on February 3, 2010 until their expiration on August 3, 2014. The Company raised gross proceeds of approximately $8,350,000 in the 2009 Offering and net cash proceeds, after deducting the placement agents' fees and other offering expenses payable by the Company, of approximately $7.7 million. Total warrants issued in connection with the transaction were 954,285.

As part of the placement agency agreement, the Company issued a warrant to purchase 23,857 shares of the Company's common stock to Rodman. The warrant has an exercise price of $4.38 per share. The warrant is immediately vested and is exercisable until its expiration on August 3, 2014.

Certain warrants issued in connection with the stock offering on August 4, 2009 were determined not to be indexed to the Company's common stock as they are potentially settleable in cash. The fair value of the warrants at the dates of issuance totaling $2,863,000 was recorded as a liability and a cost of equity and was determined using the Black-Scholes option pricing model. Due to the fact that the Company has limited trading history, the Company's expected stock volatility assumption is based on a combination of implied volatilities of similar entities whose share or option prices are publicly traded. The Company used a weighted average expected stock volatility of 122.69%. The expected life assumption is based on the contract term of five years. The dividend yield of zero is based on the fact that the Company has no present intention to pay cash dividends in the future. The risk free rate of 1.72% used for the warrant is equal to the zero coupon rate in effect at the time of the grant. The increase in the fair value of warrants from December 31, 2011 to March 31, 2012 of $384,000 has been included in other expense in the accompanying condensed statements of expenses for the three months ended March 31, 2012. The fair value of the warrants at March 31, 2012 of $448,000 is included as a current liability in the accompanying condensed balance sheets and was determined using the Black-Scholes option pricing model. Due to the fact that the Company has limited trading history, the Company's expected stock volatility assumption is based on a combination of implied volatilities of similar entities whose share or option prices are publically traded. The Company used a weighted average expected stock volatility of 68.29%. The expected life assumption is based on the remaining contract term of 2.3 years. The dividend yield of zero is based on the fact that we have no present intention to pay cash dividends. The risk free rate of 0.39% used for the warrants is equal to the zero coupon rate in effect on the date of the re-measurement.

2010 Registered Direct Offering — On March 22, 2010, the Company entered into a placement agency agreement relating to a proposed offering by the Company of new securities to potential investors. On March 23, 2010, the Company entered into definitive agreements for the sale and issuance by the Company to certain investors of 2,700,000 units, with each unit consisting of one share of the Company's common stock and a warrant to purchase 0.20 of a share of the Company's common stock, at a purchase price of $6.00 per unit (the "2010 Offering"). The 2010 Offering closed on March 26, 2010. The Company issued warrants to purchase 540,000 shares of the Company's common stock at an exercise price of $6.00 per share and that are exercisable beginning on September 26, 2010 until their expiration on March 26, 2016. The Company raised gross proceeds of approximately $16.2 million in the 2010 Offering and net cash proceeds, after deducting the placement agent fees and other offering expenses payable by the Company, of approximately $15.2 million.

As part of the 2010 Offering, the Company entered in a stock redemption agreement whereby the Company was required to use 25% of the net proceeds from the 2010 Offering to repurchase from CytRx Corporation ("CytRx") 675,000 shares of the Company's common stock held by CytRx ("CytRx shares"). The Company repurchased such shares on March 29, 2010. The values of the shares at the date of repurchase totaling $3,849,000 were recorded at cost and have been included in treasury stock in the accompanying condensed consolidated balance sheet at March 31, 2012 and 2011.

Certain warrants issued in connection with the 2010 Offering were determined not to be indexed to the Company's common stock as they are potentially settleable in cash. The fair value of the warrants at the dates of issuance totaling $2,466,000 was recorded as a liability and a cost of equity and was determined using the Black-Scholes option pricing model. Due to the fact that the Company has limited trading history, the Company's expected stock volatility assumption is based on a combination of implied volatilities of similar entities whose share or option prices are publically traded. The Company used a weighted average expected stock volatility of 119.49%. The expected life assumption is based on the contract term of 6.5 years. The dividend yield of zero is based on the fact that the Company has no present intention to pay cash dividends. The risk free rate of 3.22% used for the warrant is equal to the zero coupon rate in effect at the time of the grant. During the three months ended March 31, 2012, 180,000 of the five-year warrants were exercised at $2.50 per common share. These warrants were marked to market through March 31, 2012, resulting in additional expense of $215,000. Upon exercise, a liability in the amount of $254,000 was relieved as a credit to additional paid-in capital. The increase in the fair value of warrants from December 31, 2011 to March 31, 2012 of $402,000 has been included in other expense in the accompanying condensed statements of expenses for the three months ended March 31, 2012. The fair value of the warrants at March 31, 2012 of $479,000 is included as a current liability in the accompanying condensed balance sheets and was determined using the Black-Scholes option pricing model. Due to the fact that the Company has limited trading history, the Company's expected stock volatility assumption is based on a combination of implied volatilities of similar entities whose share or option prices are publically traded. The Company used a weighted average expected stock volatility of 81.86%. The expected life assumption is based on the remaining contract term of 4.5 years. The dividend yield of zero is based on the fact that we have no present intention to pay cash dividends. The risk free rate of 0.91%

used for the warrants is equal to the zero coupon rate in effect on the date of the re-measurement.

March 2011 Registered Direct Offering — On March 4, 2011, the Company closed an underwritten public offering of 6,000,000 units at a price to the public of $1.35 per unit for gross proceeds of $8.1 million (the "March 2011 Offering"). The offering provided approximately $7.3 million to the Company after deducting the underwriting discounts and commissions and offering expenses. Each unit consists of (i) one share of common stock, (ii) a thirteen-month warrant to purchase 0.50 of a share of common stock at an exercise price of $1.70 per share (subject to anti-dilution adjustment) and (iii) a five-year warrant to purchase 0.50 of a share of common stock at an exercise price of $1.87 per share (subject to anti-dilution adjustment). On April 15, 2011, the holders of outstanding warrants issued in the March 2011 Offering to purchase an aggregate of 3,450,000 shares of common stock agreed to exchange such warrants for warrants exercisable for the same number of shares as those being exchanged, but otherwise on the same terms of the warrants sold in the Company's April 2011 financing. Prior to the exchange, the Company recorded a decrease in fair value of $1,000,000 related to the exchanged warrants. Upon the exchange, the Company recorded a loss of $900,000, which represented the difference between the adjusted fair value of the March 2011 warrants as compared to the fair value of the April 2011 warrants received in the exchange. As a result of a subsequent offering that was completed on April 15, 2011, the exercise price of the remaining 2,550,000 outstanding warrants sold in the March 2011 Offering was reduced to $1.00 per share as a result of the anti-dilution adjustment. As a result of the subsequent offering on September 26, 2011, the exercise price of all warrants sold in the March 4, 2011 Offering were reduced to $0.65 per share as a result of the anti-dilution adjustment. At March 31, 2012, of the 2,550,000 unexchanged warrants from the March 2011 Offering, 1,373,944 warrants had been exercised with a remaining outstanding balance of 1,176,056.

The thirteen-month and five-year warrants issued in connection with the March 2011 Offering were determined not to be indexed to the Company's common stock as they are potentially settleable in cash. The fair value of the 2,550,000 warrants at the date of issuance totaling $1,790,000 was recorded as a liability and a cost of equity and was determined using the Black-Scholes option pricing model. Due to the fact that the Company has limited trading history, the Company expected stock volatility assumption is based on a combination of implied volatilities of similar entities whose shares or options are publicly traded. The Company used a weighted average expected stock volatility of 113.25%. The expected life assumption is based on the contract term of 1.08 years used for the thirteen-month warrants and 5 years used for the five-year warrants. The dividend yield of zero is based on the fact that we have no present intention to pay cash dividends. The risk free rate of 0.26% used for the thirteen-month warrants and 2.17% used for the five-year warrants is equal to the zero coupon rate in effect at the time of the grant. In July 2011, 75,000 of the thirteen-month warrants were exercised at $1.00 per common share, which resulted in a $34,000 reduction of the warrant liability. In July 2011, 75,000 of the five-year warrants were exercised at $1.00 per common share, which resulted in a $68,000 reduction of the warrant liability. During the three months ended March 31, 2012, 862,500 of the thirteen-month warrants and 361,444 of the five-year warrants were exercised at $0.65 per common share. These warrants were marked to market through March 31, 2012, resulting in additional expense of $1,256,000. Upon exercise, a liability in the amount of $1,405,000 was relieved as a credit to additional paid-in capital. The increase in the fair value of warrants from December 31, 2011 to March 31, 2012 of $1,765,000 has been included in other expense in the accompanying condensed statements of expenses for the three months ended March 31, 2012. The fair value of the warrants at March 31, 2012 of $2,028,000 is included as a current liability in the accompanying condensed balance sheets and was determined using the Black-Scholes option pricing model. Due to the fact that the Company has limited trading history, the Company's expected stock volatility assumption is based on a combination of implied volatilities of similar entities whose share or option prices are publically traded. The Company used a weighted average expected stock volatility of 47.29% for the thirteen-month warrants and 81.99% for the five-year warrants. The expected life assumption is based on the remaining contract term of 0.01 years used for the thirteen-month warrants and 3.93 years used for the five-year warrants. The dividend yield of zero is based on the fact that we have no present intention to pay cash dividends. The risk free rate of 0.01% used for the thirteen-month warrants and 0.78% used for the five-year warrants is equal to the zero coupon rate in effect at the time of the re-measurement.

April 2011 Registered Direct Offering — On April 20, 2011, the Company completed an underwritten public offering of 11,950,000 units at a price to the public of $1.00 per unit for gross proceeds of approximately $12 million (the "April 2011 Offering"). Each unit consisted of one share of common stock and a warrant to purchase one share of common stock at an exercise price of $1.00 per share (subject to anti-dilution adjustment). The shares of common stock and warrants were immediately separable and no separate units were issued. The warrants are exercisable beginning one year and one day from the date of issuance, and expire on the sixth anniversary of the date of issuance. Net proceeds, after underwriting discounts and commissions and other offering expenses, were approximately $10.9 million. As a result of the subsequent offering that was completed on September 26, 2011, the exercise price of the 11,950,000 outstanding warrants sold in the April 2011 Offering was reduced to $0.65 per share as a result of the anti-dilution adjustment. On December 6, 2011, the Company effected a warrant exchange with a ratio of 1.42857 warrants in exchange for one share of common stock with several of the April 2011 warrant holders. In total, 5,930,000 warrants were exchanged for 4,151,000 shares of common stock in this transaction. At March 31, 2012, 6,020,000 warrants sold in the April 20, 2011 Offering remained outstanding.

The warrants issued in connection with the April 2011 Offering, including the warrants issued in exchange for the 3,450,000 March 2011 warrants, were determined not to be indexed to the Company's common stock as they are potentially settleable in cash. The fair value of the warrants at the dates of issuance totaling $11,442,000 was recorded as a liability and a cost of equity and was determined using the Black-Scholes option pricing model. Due to the fact that the Company has limited trading history, the Company's expected stock volatility assumption is based on a combination of implied volatilities of similar entities whose shares or options are publicly traded. The Company used a weighted average expected stock volatility of 99.04%. The expected life assumption is based on the contract term of 6.0 years. The dividend yield of zero is based on the fact that we have no present intention to pay cash dividends. The risk free rate of 2.81% used for the warrants is equal to the zero coupon rate in effect at the time of the grant. In December 2011, the Company exchanged 4,151,000 shares of common stock in exchange for 5,930,000 of these April warrants at a ratio of 0.7 common shares for each warrant which resulted in a reduction to warrant liability of $3,120,000. The increase in the fair market value of the warrants, including the warrants exchanged for the 3,450,000 March 2011 warrants, from December 31, 2011 to March 31, 2012 of $14,248,000 has been included in other expense in the accompanying condensed statements of expenses for the three months ended March 31, 2012. The fair value of the warrants at March 31, 2012 of $17,402,000 is included as a current liability in the accompanying condensed balance sheets and was determined using the Black-Scholes option pricing model. Due to the fact that

the Company has limited trading history, the

Company's expected stock volatility assumption is based on a combination of implied volatilities of similar entities whose share or option prices are publically traded. The Company used a weighted average expected stock volatility of 79.77%. The expected life assumption is based on the remaining contract term of 5.1 years. The dividend yield of zero is based on the fact that we have no present intention to pay cash dividends. The risk free rate of 1.04% used for the warrants is equal to the zero coupon rate in effect on the date of the re-measurement.

September 2011 Registered Direct Offering — On September 26, 2011, the Company completed a direct offering of 700,000 shares of common stock for gross proceeds of $455,000.

10. Litigation

The Company is in litigation with several of its April 2011 warrants holders ("Plaintiffs") who have asserted that the Company's spin-off of RXi and related actions give the Plaintiffs the right to require us to repurchase our outstanding warrants held by them. Originally, the Plaintiffs made aggregate repurchase demands to the Company to repurchase 6,850,000 warrants, which represented an approximate total demand of $5.2 million.

On March 21, 2012, we received letters from each of the plaintiff-warrant holders withdrawing their repurchase demands with respect to their warrants covering an aggregate of 6,350,000 shares out of a total of 6,850,000 shares of common stock purchasable under their warrants (the "Withdrawal Notice **s** "). After giving effect to the Withdrawal Notices, the plaintiff-warrant holders continued to demand that we repurchase their warrants covering the balance of 500,000 shares of common stock in the aggregate. Based on the plaintiff-warrant holders' claims in their Complaints, we believe that the repurchase price for these warrants is $0.71 per underlying share, or an aggregate of $355,000. On March 27, 2012, we tendered to the plaintiff-warrant holders an aggregate of $355,000 as payment in full of the repurchase price for those warrants. We believe that the Withdrawal Notices and our tender of payment as described above render moot the majority of the claims of the plaintiff-warrant holders in their Complaints, although the Withdrawal Notices purport to reserve all rights of the plaintiff-warrant holders under the Complaints.

On May 7, 2012, the Company entered into a confidential settlement agreement with one of the Plaintiffs, in which the Plaintiff withdrew all claims in the aforementioned matter.

11. Subsequent Events

The Company evaluated all events or transactions that occurred after March 31, 2012 up through the date these financial statements were issued. Other than what is disclosed below, the Company did not have any material recognizable or unrecognizable subsequent events.

Since March 31, 2012, the Company has issued 6,363,191 shares of the Company's common stock pursuant to the exercise of outstanding warrants from various warrant holders. The Company received $4,136,074 in total payments at an exercise price of $0.65 per share.

On April 5, 2012, the Company issued 120,065 shares of common stock in connection with a cashless exercise of 182,500 thirteen-month warrants from the March 2011 Offering which had expired, in the money, on April 4, 2012.

On April 11, 2012, the Company issued 8,500,000 shares of its common stock in an underwritten public offering at $1.50 per share. The Company also granted to the underwriters a 30-day option to purchase up to an additional 1,275,000 shares to cover overallotments in connection with the offering. On April 13, 2012, the underwriters exercised their option to purchase an additional 1,251,000 shares of common stock. After the underwriting discount and estimated offering expenses payable by the Company, the Company received net proceeds of approximately $13.3 million.

On April 26, 2012, the Company completed the spin-off of RXi, its wholly-owned subsidiary prior to the spin-off, pursuant to the Securities Purchase Agreement described in Note 4, and on April 27, 2012, the Company closed the transactions under the Securities Purchase Agreement.

On May 7, 2012, as more fully described in Note 10, the Company entered into a confidential settlement agreement with one of the Plaintiffs in the actions described in Note 10.

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ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

In this document, "we," "our," "ours" and "us" refer to Galena Biopharma, Inc. and its consolidated subsidiaries.

This management's discussion and analysis of financial condition as of March 31, 2012 and results of operations for the three months ended March 31, 2012 and 2011, respectively, should be read in conjunction with management's discussion and analysis of financial condition and results of operations included in our Annual Report on Form 10-K for the year ended December 31, 2011 which was filed with the SEC on March 28, 2012.

The discussion and analysis below includes certain forward-looking statements related to future operating losses and our potential for profitability, the sufficiency of our cash resources, our ability to obtain additional equity or debt financing, possible partnering or other strategic opportunities for the development of our products, as well as other statements related to the progress and timing of product development, present or future licensing, collaborative or financing arrangements or that otherwise relate to future periods, which are all forward-looking statements as defined by the Private Securities Litigation Reform Act of 1995. These statements represent, among other things, the expectations, beliefs, plans and objectives of management and/or assumptions underlying or judgments concerning the future financial performance and other matters discussed in this document. The words "may," "will," "should," "plan," "believe," "estimate," "intend," "anticipate," "project," and "expect" and similar expressions are intended to identify forward-looking statements. All forward-looking statements involve certain risks, uncertainties and other factors described elsewhere in our Annual Report on Form 10-K for the year ended December 31, 2011, that could cause our actual results of operations, performance, financial position and business prospects and opportunities for this quarter and the periods that follow to differ materially from those expressed in, or implied by, those forward-looking statements. We caution investors not to place significant reliance on the forward-looking statements contained in this report. These statements, like all statements in this report, speak only as of the date of this report (unless another date is indicated) and we undertake no obligation to update or revise forward-looking statements.

Overview

Galena Biopharma, Inc. ("we," "us," "our," "Galena" or the "Company") is a biopharmaceutical company focused on developing innovative, next-generation cancer immunotherapies which address major unmet medical needs to advance care. Galena is developing innovative, peptide antigen-based "off the shelf" cancer immunotherapies for potential application to treatment of large populations of Cancer Survivors. Peptide vaccines have several potential clinical advantages over existing cancer treatments including excellent safety profiles, long-lasting protection through immune system activation, as well as an acceptable mode of administration (intradermal injection). A key differentiator in Galena's approach is the focus on "minimal residual disease" that may remain in Cancer Survivors. The strategy is to prevent recurrence in early stage patient groups who may harbor "occult" residual cancer cells that are not detectable by current imaging and biomarkers, and despite adjuvant therapy and radiation therapy will relapse in significant numbers over time.

Our lead product candidate, NeuVax ™ (E75), targets the HER2 tumor associated antigen peptide and is being developed to prevent or delay breast cancer recurrence in a Phase 3 clinical trial under a US FDA approved SPA (Special Protocol Assessment) and in combination with Herceptin ® (trastuzumab: Genentech/Roche) in a Phase 2 clinical trial. Our second product candidate, Folate Binding Protein (FBP), a targeted vaccine which consists of the E39 peptide over-expressed (20-80 fold) in more than 90% of ovarian and endometrial cancers, is currently in a Phase 1 clinical trial.

The Company was incorporated as Argonaut Pharmaceuticals, Inc., in Delaware, on April 3, 2006. The Company changed its name to RXi Pharmaceuticals Corporation on November 28, 2006.

We acquired Apthera Inc., or "Apthera," and our NeuVax product candidate in April 2011. Prior to that time, we were engaged primarily in conducting discovery research and preclinical development activities based on RNAi. Our acquisition of Apthera followed from the determination by our board of directors to broaden our strategic direction by giving us access to a late-stage clinical candidate, NeuVax. In connection with our acquisition of Apthera, we reduced the scope of our RNAi activities.

On September 26, 2011, the Company changed its name from RXi Pharmaceuticals Corporation to Galena Biopharma, Inc. in connection with the Company's separation into two companies: (i) Galena, which will operate as a late-stage oncology drug development company; and (ii) RXi Pharmaceuticals Corporation, or RXi, which will continue to develop novel RNAi-based therapies utilizing our historical RNAi assets. RXi was initially incorporated as RNCS, Inc. and assumed the name RXi Pharmaceuticals Corporation in conjunction with the change in the Company's name to Galena. On April 27, 2012, the planned spin-out up RXi was completed (See Note 4).

Our new RXi subsidiary was formed by us in agreement with two institutional investors. On September 24, 2011, we contributed to RXi substantially all of our RNAi-related technologies and assets and entered into a number of agreements relating to RXi's ongoing business and operations. RXi will focus on developing and commercializing therapeutic products based on RNAi technologies for the treatment of human diseases, including its lead anti-scarring and anti-fibrosis product candidate, RXI-109, with initial financing to be provided by us and the institutional investors. In these agreements, we have committed, among other things, to undertake to distribute to our stockholders a portion of the RXi common stock held by Galena in order to accomplish the spin-off of RXi. On April 27, 2012, the Company completed the spin-off of RXi.

The Company has not generated any revenues since inception nor are any revenues expected for the foreseeable future. The Company expects to incur significant operating losses for the foreseeable future while the Company advances its future product candidates from discovery through pre-clinical studies and clinical trials and seek regulatory approval and potential commercialization, even if the Company is collaborating with pharmaceutical and larger biotechnology companies. In addition to these increasing research and development expenses, the

Company expects general and administrative costs to increase as the Company recruits additional management and administrative personnel. The Company will need to generate significant revenues to achieve profitability and may never do so.

Results of Operations

For the Three Months Ended March 31, 2012 and March 31, 2011

For the three months ended March 31, 2012, our net loss was approximately $24,761,000 compared with a net loss of $3,841,000 for the three months ended March 31, 2011. The loss increased by $20,920,000 or approximately 545%. Reasons for the variations in the losses between the quarters are discussed below.

Research and Development Expense

Research and development expense consists primarily of compensation-related costs for our employees dedicated to research and development activities and for our Scientific Advisory Board ("SAB") members as well as clinical trial expenses, licensing fees and patent prosecution costs. We expect research and development expenses to increase as we expand our clinical development activities.

Total research and development expenses were approximately $3,671,000 for the three months ended March 31, 2012, compared with $2,156,000 for the three months ended March 31, 2011. The increase of $1,515,000, or 70% was due to an increase of $1,451,000 related to the ramp up of our Phase 3 PRESENT clinical trial and an increase of $238,000 related to higher expenses for non-employee stock based compensation, offset by a decrease in employee stock based compensation of $174,000, primarily related to timing of grants and changes in our Black-Scholes assumptions.

General and Administrative Expense

General and administrative expense includes compensation-related costs for our employees dedicated to general and administrative activities, legal fees, audit and tax fees, consultants and professional services, and general corporate expenses.

General and administrative expense was $1,939,000 for the three months ended March 31, 2012, compared with $3,119,000 for the three months ended March 31, 2011. The decrease of $1,180,000, or 38%, was due to a $901,000 decrease in non-cash employee share based compensation expense and a $463,000 decrease in personnel related costs, professional and outside services, which was partially offset by a $112,000 increase in non-cash compensation expense recorded for exchange of services and $72,000 related to a warrant issued for business advisory services.

Interest Income/Expense

Interest income (expense) was negligible for each of the three months ended March 31, 2012 and 2011. The key objectives of our investment policy are to preserve principal and ensure sufficient liquidity, so our invested cash may not earn as high a level of income as longer-term or higher risk securities, which generally have less liquidity and more volatility.

Other Income/Expense

Other expense was $19,114,000 for the three months ended March 31, 2012, compared with other income of $1,435,000 for the three months ended March 31, 2011. The increase in other expense of $20,549,000 was due to an increase in the fair value of warrants accounted for as a liability as well as warrants settled during the three months ended March 31, 2012 of $19,705,000 and an increase in non-cash expense related to the change in fair value of a contingent purchase price consideration liability of $844,000.

Liquidity and Capital Resources

We had cash and cash equivalents of approximately $8.7 million as of March 31, 2012, compared with $11.4 million as of December 31, 2011 and $24.9 million as of April 30, 2012. The increase in our cash and cash equivalents from March 31, 2012 to April 30, 2012 is attributable to the net proceeds of approximately $13.3 million from the offering that closed on April 15, 2012 and the proceeds of approximately of $4.1 million from the exercise of warrants.

We have not generated revenue to date and may not generate product revenue in the foreseeable future, if ever. We expect to incur significant operating losses as we advance our product candidates through the drug development and regulatory process. In addition to increasing research and development expenses, we expect general and administrative costs to increase as we add personnel and other administrative expenses. We will need to generate significant revenues to achieve profitability and might never do so. In the absence of product revenues, our potential sources of operational funding are expected to be the proceeds from the sale of equity, funded research and development payments and payments received under partnership and collaborative agreements.

We believe that our existing cash and cash equivalents should be sufficient to fund our operations through at least the second quarter of 2013. In the future, we will be dependent on obtaining funding from third parties, such as proceeds from the sale of equity, funded research and development payments and payments under partnership and collaborative agreements, in order to maintain our operations and meet our obligations to licensors. There is no guarantee that debt, additional equity or other funding will be available to us on acceptable terms, or at all. If we fail to obtain additional funding when needed, we would be forced to scale back, or terminate, our operations or to seek to merge with or to be acquired by another company.

Net Cash Flow from Operating Activities

Net cash used in operating activities was approximately $4,885,000 for the three months ended March 31, 2012, compared with $3,027,000 for the three months ended March 31, 2011. The increase of approximately $1,858,000 resulted primarily from a net loss of $24,761,000, of which $18,270,000 reflects the fair value of warrants issued with the registered direct financings completed by the Company in 2009, 2010 and 2011, $844,000 related to changes in fair value of contingent purchase price consideration, $427,000 related to stock-based compensation, $148,000 related to stock warrant expense in exchange for services, $185,000 related to common stock issued in exchange for services, $42,000 related to depreciation and $40,000 related to changes in assets and liabilities.

Net Cash Flow from Investing Activities

Net cash used in investing activities was zero for the three months ended March 31, 2012, compared with $40,000 for the three months ended March 31, 2011. The decrease was primarily due to purchases of equipment and furnishings in 2011.

Net Cash Flow from Financing Activities

Net cash provided by financing activities was $2,153,000 for the three months ended March 31, 2012, compared with $7,291,000 for the three months ended March 31, 2011. The decrease was primarily due to $1,236,000 from the exercise of warrants, $500,000 from issuance of convertible notes, net proceeds from the issuance of common stock to a strategic partner in the amount of $385,000 and $39,000 for common stock issued in connection with the ESPP offset by $7,000 in repayments of capital lease obligations in the first quarter of 2012, compared with net proceeds from the issuance of common stock in the amount of $7,314,000 to institutional investors offset by $23,000 in repayments of capital lease obligations in the first quarter of 2011.

Off-Balance Sheet Arrangements

We have not entered into off-balance sheet financing, other than operating leases.

Critical Accounting Policies and Estimates

In our Annual Report on Form 10-K for the year ended December 31, 2011, we disclosed our critical accounting policies and estimates upon which our financial statements are derived. There have been no changes to these policies since December 31, 2011. Readers are encouraged to review these disclosures in conjunction with the review of this quarterly report on Form 10-Q.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Not applicable

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

As of the end of the period covered by this quarterly report on Form 10-Q, our Chief Executive Officer and Principal Financial Officer (the "Certifying Officers"), evaluated the effectiveness of our disclosure controls and procedures. Disclosure controls and procedures are controls and procedures designed to reasonably assure that information required to be disclosed in our reports filed under the Securities Exchange Act of 1934 (the "Exchange Act"), such as this Form 10-Q, is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms. Disclosure controls and procedures are also designed to reasonably assure that such information is accumulated and communicated to our management, including the Certifying Officers, as appropriate to allow timely decisions regarding required disclosure. Based on these evaluations, the Certifying Officers have concluded, that, as of the end of the period covered by this quarterly report on Form 10-Q:

(a) our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act was recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms; and

(b) our disclosure controls and procedures were effective to provide reasonable assurance that material information required to be disclosed by us in the reports we file or submit under the Exchange Act was accumulated and communicated to our management, including the Certifying Officers, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There has not been any change in our internal control over financial reporting that occurred during the quarterly period ended March 31, 2012 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

The Company is in litigation with several of its April 2011 warrants holders ("Plaintiffs") who have asserted that the Company's spin-off of RXi and related actions give the Plaintiffs the right to require us to repurchase our outstanding warrants held by them. Originally, the Plaintiffs made aggregate repurchase demands to the Company to repurchase 6,850,000 warrants, which represented an approximate total demand of $5.2 million.

On March 21, 2012, we received letters from each of the plaintiff-warrant holders withdrawing their repurchase demands with respect to their warrants covering an aggregate of 6,350,000 shares out of a total of 6,850,000 shares of common stock purchasable under their warrants (the "Withdrawal Notice **s** "). After giving effect to the Withdrawal Notices, the plaintiff-warrant holders continued to demand that we repurchase their warrants covering the balance of 500,000 shares of common stock in the aggregate. Based on the plaintiff-warrant holders' claims in their Complaints, we believe that the repurchase price for these warrants is $0.71 per underlying share, or an aggregate of $355,000. On March 27, 2012, we tendered to the plaintiff-warrant holders an aggregate of $355,000 as payment in full of the repurchase price for those warrants. We believe that the Withdrawal Notices and our tender of payment as described above render moot the majority of the claims of the plaintiff-warrant holders in their Complaints, although the Withdrawal Notices purport to reserve all rights of the plaintiff-warrant holders under the Complaints.

On May 7, 2012, the Company entered into a confidential settlement agreement with one of the Plaintiffs, in which the Plaintiff withdrew all claims in the aforementioned matter.

ITEM 1.A RISK FACTORS

You should consider the "Risk Factors" included under Item 1A. of our Annual Report on Form 10-K for the year ended December 31, 2011, filed on March 28, 2012 with the SEC.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

In February 2012, the Company issued 400,000 warrants to purchase its common stock in exchange for business advisory services. The warrants were issued by us in a private transaction exempt from registration under the Securities Act of 1933 pursuant to Section 4(2) of the Securities Act of 1933 and Regulation D under the Act.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable

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ITEM 5. OTHER INFORMATION

None

ITEM 6. EXHIBITS

EXHIBIT INDEX

Exhibit Number	Description
1.1	Underwriting Agreement dated as of April 5, 2012 by and between Galena Biopharma, Inc. and Roth Capital Partners, LLC, as representative of the several underwriters named therein. (1)
4.1	Warrant No. 2012-1 in favor of Legend Securities, Inc. issued in February 2012. (2).
10.1	Amendment No. 1 to License Agreement, dated as of January 13, 2012, by and among Apthera, Inc., Kwangdong Pharmaceutical Co., Ltd., and Galena Biopharma, Inc. (2)
10.2	First Amendment to Contingent Value Rights Agreement among Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation), Computershare Trust Company, N.A., Computershare Inc., and Robert E Kennedy, dated February 15, 2012. (2)
10.3	Controlled Equity Offering SM Sales Agreement, dated as of February 17, 2012, between Galena Biopharma, Inc. and Cantor Fitzgerald & Co. (3)
10.4	Omnibus Amendment to Securities Purchase Agreement, dated as of February 6, 2012, among RXi Pharmaceuticals Corporation (formerly RNCS, Inc.), Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation), Tang Capital Partners, LP and RTW Investments, LLC. (4)
10.5	Second Omnibus Amendment to Securities Purchase Agreement, dated as of March 5, 2012, among RXi Pharmaceuticals Corporation (formerly RNCS, Inc.), Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation), Tang Capital Partners, LP and RTW Investments, LLC. (2)
10.6	Third Omnibus Amendment to Securities Purchase Agreement, dated as of March 30, 2012, among RXi Pharmaceuticals Corporation (formerly RNCS, Inc.), Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation), Tang Capital Partners, LP and RTW Investments, LLC. **
10.7	Fourth Omnibus Amendment to Securities Purchase Agreement, dated as of April 3, 2012, among RXi Pharmaceuticals Corporation (formerly RNCS, Inc.), Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation), Tang Capital Partners, LP and RTW Investments, LLC. **
10.8	Fifth Omnibus Amendment to Securities Purchase Agreement, dated as of April 11, 2012, among RXi Pharmaceuticals Corporation (formerly RNCS, Inc.), Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation), Tang Capital Partners, LP and RTW Investments, LLC. **
10.9	Sixth Omnibus Amendment to Securities Purchase Agreement, dated as of April 18, 2012, among RXi Pharmaceuticals Corporation (formerly RNCS, Inc.), Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation), Tang Capital Partners, LP and RTW Investments, LLC. **
10.10	Seventh Amendment Agreement to Securities Purchase Agreement, dated as of April 25, 2012, among RXi Pharmaceuticals Corporation (formerly RNCS, Inc.), Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation), Tang Capital Partners, LP and RTW Investments, LLC. **
31.1	Sarbanes-Oxley Act Section 302 Certification of Chief Executive Officer.**
31.2	Sarbanes-Oxley Act Section 302 Certification of Principal Financial Officer.**
32.1	Sarbanes-Oxley Act Section 906 Certification of Chief Executive Officer and Principal Financial Officer.**
101	The following financial information from the Quarterly Report on Form 10-Q of Galena Biopharma, Inc. for the quarter ended March 31, 2012, formatted in XBRL (eXtensible Business Reporting Language): (1) Condensed Consolidated Balance Sheets as of March 31, 2012 and December 31, 2011; (2) Condensed Consolidated Statements of Expenses for the three months ended March 31, 2012 and 2011 and for the period from January 1, 2003 (inception) to March 31, 2012; (3) Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2012 and 2011 and for the cumulative period from January 1, 2003 (inception) to March 31, 2012; and (4) Notes to Condensed Consolidated Financial Statements. (5)

(1) Previously filed as an Exhibit to the Company's Form 8-K filed on April 5, 2012 (File No. 001-33958) and incorporated by reference herein.
(2) Previously filed as an Exhibit to the Company's Form 10-K filed on March 28, 2012 (File No. 001-33958) and incorporated by reference herein.
(3) Previously filed as an Exhibit to the Company's Form 8-K filed on February 17, 2012 (File No. 001-33958) and incorporated by reference herein.
(4) Previously filed as an Exhibit to Amendment No. 4 to RXi Pharmaceuticals Corporation's Registration Statement on Form S-1 filed on

February 7, 2012 (File No. 333-177498) and incorporated by reference herein.

(5) In accordance with Rule 406T of Regulation S-T, the XBRL-related information in Exhibit 101 to this Quarterly Report on Form 10-Q is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 and 12 of the Securities Act, is deemed not filed for purposes of Section 18 of the Exchange Act, and otherwise is not subject to liability under these sections, is not part of any registration statement or prospectus to which it relates and is not incorporated by reference into any registration statement, prospectus or other document.

** Filed herewith.

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SIGNATURES

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

GALENA BIOPHARMA, INC.

(Registrant)

By: /s/ *Mark Ahn*
Mark J. Ahn
President and Chief Executive Officer

Date: May 14, 2012

By: /s/ *Kwang S. Lee*
Kwang S. Lee
Vice President, Finance (Principal Financial and Accounting Officer)

Date: May 14, 2012

Exhibit 10.6

THIRD OMNIBUS AMENDMENT

This THIRD OMNIBUS AMENDMENT (this " Third Amendment ") is made and entered into as of March 30, 2012, by and among Tang Capital Partners, LP, RTW Investments, LLC, Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation) and RXi Pharmaceuticals Corporation (formerly RNCS, Inc.).

WHEREAS, the parties entered into a Securities Purchase Agreement dated as of September 24, 2011 (the " Securities Purchase Agreement ") and the Ancillary Agreements related thereto, including the Bridge Notes;

WHEREAS, the parties entered into an Omnibus Amendment dated as of February 6, 2012 (the " First Amendment ") and a Second Omnibus Amendment dated as of March 5, 2012 (the " Second Amendment " and, together with the First Amendment, the " Previous Amendments "), amending certain provisions of the Securities Purchase Agreement and the Bridge Notes;

WHEREAS, the Securities Purchase Agreement, as amended by the Previous Amendments, in Section 8.01(c) thereof provides that the Agreement may be terminated by either the Company or the Investors if the Closing has not occurred on or before 5:00 p.m., Eastern Standard Time, on March 31, 2012, which date may be extended from time to time by mutual written consent of the Company and the Investors;

WHEREAS, the Bridge Notes dated September 24, 2011 held by the Investors, as amended by the First Amendment, in Section 1.1 thereof each provide for a Maturity Date (as defined in the Bridge Notes) of the earlier of (i) March 31, 2012 or (ii) an Event of Default (as defined in the Bridge Notes);

WHEREAS, the parties desire to amend such provisions of the Securities Purchase Agreement and the Bridge Notes to extend the March 31, 2012 date;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Securities Purchase Agreement Amendment . Section 8.01(c) of the Securities Purchase Agreement, as amended by the Previous Amendments, is hereby further amended to replace "March 31, 2012" with "April 4, 2012".

2. Bridge Notes Amendment . The Bridge Notes, as amended by the Previous Amendments, are hereby further amended to replace references to "March 31, 2012" with "April 4, 2012".

3. Miscellaneous . Capitalized terms used herein and not defined shall have the meanings set forth in the Securities Purchase Agreement or in the Bridge Notes, in each case, as amended, as applicable. The terms and conditions set forth in Article X of the Securities

Purchase Agreement are incorporated herein by reference. Nothing herein shall constitute a waiver of any provision of the Securities Purchase Agreement or any of the Ancillary Documents pursuant to Section 10.03 of the Securities Purchase Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Third Amendment as of the date first above written.

GALENA BIOPHARMA, INC.

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President and Chief Executive Officer

RXi PHARMACEUTICALS CORPORATION

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President

TANG CAPITAL PARTNERS, LP

By: /s/ Kevin C. Tang
Name: Kevin C. Tang
Title: Managing Director

RTW INVESTMENTS, LLC

By: /s/ Roderick Wong
Name: Roderick Wong
Title: Managing Member

[Signature Page to Third Omnibus Agreement]

Exhibit 10.7

FOURTH OMNIBUS AMENDMENT

This FOURTH OMNIBUS AMENDMENT (this " Fourth Amendment ") is made and entered into as of April 3, 2012, by and among Tang Capital Partners, LP, RTW Investments, LLC, Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation) and RXi Pharmaceuticals Corporation (formerly RNCS, Inc.).

WHEREAS, the parties entered into a Securities Purchase Agreement dated as of September 24, 2011 (the " Securities Purchase Agreement ") and the Ancillary Agreements related thereto, including the Bridge Notes;

WHEREAS, the parties entered into an Omnibus Amendment dated as of February 6, 2012 (the " First Amendment "), a Second Omnibus Amendment dated as of March 5, 2012 (the " Second Amendment ") and a Third Omnibus Amendment dated as of March 30, 2012 (the " Third Amendment " and, together with the First Amendment and the Second Amendment, the " Previous Amendments "), amending certain provisions of the Securities Purchase Agreement and the Bridge Notes;

WHEREAS, the Securities Purchase Agreement, as amended by the Previous Amendments, in Section 8.01(c) thereof provides that the Agreement may be terminated by either the Company or the Investors if the Closing has not occurred on or before 5:00 p.m., Eastern Standard Time, on March 31, 2012, which date may be extended from time to time by mutual written consent of the Company and the Investors;

WHEREAS, the Bridge Notes dated September 24, 2011 held by the Investors, as amended by the First Amendment, in Section 1.1 thereof each provide for a Maturity Date (as defined in the Bridge Notes) of the earlier of (i) April 4, 2012 or (ii) an Event of Default (as defined in the Bridge Notes);

WHEREAS, the parties desire to amend such provisions of the Securities Purchase Agreement and the Bridge Notes to extend the April 4, 2012 date;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Securities Purchase Agreement Amendment . Section 8.01(c) of the Securities Purchase Agreement, as amended by the Previous Amendments, is hereby further amended to replace “April 4, 2012” with “April 11, 2012”.

2. Bridge Notes Amendment . The Bridge Notes, as amended by the Previous Amendments, are hereby further amended to replace references to “April 4, 2012” with “April 11, 2012”.

3. Miscellaneous . Capitalized terms used herein and not defined shall have the meanings set forth in the Securities Purchase Agreement or in the Bridge Notes, in each case, as amended, as applicable. The terms and conditions set forth in Article X of the Securities Purchase Agreement are incorporated herein by reference. Nothing herein shall constitute a waiver of any provision of the Securities Purchase Agreement or any of the Ancillary Documents pursuant to Section 10.03 of the Securities Purchase Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Fourth Amendment as of the date first above written.

GALENA BIOPHARMA, INC.

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President and Chief Executive Officer

RXi PHARMACEUTICALS CORPORATION

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President

TANG CAPITAL PARTNERS, LP

By: /s/ Kevin C. Tang
Name: Kevin C. Tang
Title: Managing Director

RTW INVESTMENTS, LLC

By: /s/ Roderick Wong
Name: Roderick Wong
Title: Managing Member

[Signature Page to Fourth Omnibus Agreement]

Exhibit 10.8

FIFTH OMNIBUS AMENDMENT

This FIFTH OMNIBUS AMENDMENT (this " Fifth Amendment ") is made and entered into as of April 11, 2012, by and among Tang Capital Partners, LP, RTW Investments, LLC, Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation) and RXi Pharmaceuticals Corporation (formerly RNCS, Inc.).

WHEREAS, the parties entered into a Securities Purchase Agreement dated as of September 24, 2011 (the " Securities Purchase Agreement ") and the Ancillary Agreements related thereto, including the Bridge Notes;

WHEREAS, the parties entered into an Omnibus Amendment dated as of February 6, 2012 (the " First Amendment "), a Second Omnibus Amendment dated as of March 5, 2012 (the " Second Amendment "), a Third Omnibus Amendment dated as of March 30, 2012 (the " Third Amendment ") and a Fourth Omnibus Amendment dated as of April 3, 2012 (the " Fourth Amendment " and, together with the First Amendment, the Second Amendment and Third Amendment, the " Previous Amendments "), amending certain provisions of the Securities Purchase Agreement and the Bridge Notes;

WHEREAS, the Securities Purchase Agreement, as amended by the Previous Amendments, in Section 8.01(c) thereof provides that the Agreement may be terminated by either the Company or the Investors if the Closing has not occurred on or before 5:00 p.m., Eastern Standard Time, on April 11, 2012, which date may be extended from time to time by mutual written consent of the Company and the Investors;

WHEREAS, the Bridge Notes dated September 24, 2011 held by the Investors, as amended by the First Amendment, in Section 1.1 thereof each provide for a Maturity Date (as defined in the Bridge Notes) of the earlier of (i) April 11, 2012 or (ii) an Event of Default (as defined in the Bridge Notes);

WHEREAS, the parties desire to amend such provisions of the Securities Purchase Agreement and the Bridge Notes to extend the April 11, 2012 date;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Securities Purchase Agreement Amendment . Section 8.01(c) of the Securities Purchase Agreement, as amended by the Previous Amendments, is hereby further amended to replace "April 11, 2012" with "April 18, 2012".

2. Bridge Notes Amendment . The Bridge Notes, as amended by the Previous Amendments, are hereby further amended to replace references to "April 11, 2012" with "April 18, 2012".

3. Miscellaneous . Capitalized terms used herein and not defined shall have the meanings set forth in the Securities Purchase Agreement or in the Bridge Notes, in each case, as amended, as applicable. The terms and conditions set forth in Article X of the Securities Purchase Agreement are incorporated herein by reference. Nothing herein shall constitute a waiver of any provision of the Securities Purchase Agreement or any of the Ancillary Documents pursuant to Section 10.03 of the Securities Purchase Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Fifth Amendment as of the date first above written.

GALENA BIOPHARMA, INC.

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President and Chief Executive Officer

RXi PHARMACEUTICALS CORPORATION

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President

TANG CAPITAL PARTNERS, LP

By: /s/ Kevin C. Tang
Name: Kevin C. Tang
Title: Managing Director

RTW INVESTMENTS, LLC

By: /s/ Roderick Wong
Name: Roderick Wong
Title: Managing Member

[Signature Page to Fifth Omnibus Amendment]

Exhibit 10.9

SIXTH OMNIBUS AMENDMENT

This SIXTH OMNIBUS AMENDMENT (this " Sixth Amendment ") is made and entered into as of April 18, 2012, by and among Tang Capital Partners, LP, RTW Investments, LLC, Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation) and RXi Pharmaceuticals Corporation (formerly RNCS, Inc.).

WHEREAS, the parties entered into a Securities Purchase Agreement dated as of September 24, 2011 (the " Securities Purchase Agreement ") and the Ancillary Agreements related thereto, including the Bridge Notes;

WHEREAS, the parties entered into an Omnibus Amendment dated as of February 6, 2012 (the " First Amendment "), a Second Omnibus Amendment dated as of March 5, 2012 (the " Second Amendment "), a Third Omnibus Amendment dated as of March 30, 2012 (the " Third Amendment "), a Fourth Omnibus Amendment dated as of April 3, 2012 (the " Fourth Amendment "), a Fifth Omnibus Amendment dated as of April 11, 2012 (the " Fifth Amendment " and, together with the First Amendment, the Second Amendment, the Third Amendment, the Fourth Amendment and the Fifth Amendment, the " Previous Amendments "), amending certain provisions of the Securities Purchase Agreement and the Bridge Notes;

WHEREAS, the Securities Purchase Agreement, as amended by the Previous Amendments, in Section 8.01(c) thereof provides that the Agreement may be terminated by either the Company or the Investors if the Closing has not occurred on or before 5:00 p.m., Eastern Standard Time, on April 18, 2012, which date may be extended from time to time by mutual written consent of the Company and the Investors;

WHEREAS, the Bridge Notes dated September 24, 2011 held by the Investors, as amended by the First Amendment, in Section 1.1 thereof each provide for a Maturity Date (as defined in the Bridge Notes) of the earlier of (i) April 18, 2012 or (ii) an Event of Default (as defined in the Bridge Notes);

WHEREAS, the parties desire to amend such provisions of the Securities Purchase Agreement and the Bridge Notes to extend the April 18, 2012 date;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Securities Purchase Agreement Amendment . Section 8.01(c) of the Securities Purchase Agreement, as amended by the Previous Amendments, is hereby further amended to replace "April 18, 2012" with "April 30, 2012".

2. Bridge Notes Amendment . The Bridge Notes, as amended by the Previous Amendments, are hereby further amended to replace references to "April 18, 2012" with "April 30, 2012".

3. Miscellaneous . Capitalized terms used herein and not defined shall have the meanings set forth in the Securities Purchase Agreement or in the Bridge Notes, in each case, as amended, as applicable. The terms and conditions set forth in Article X of the Securities Purchase Agreement are incorporated herein by reference. Nothing herein shall constitute a waiver of any provision of the Securities Purchase Agreement or any of the Ancillary Documents pursuant to Section 10.03 of the Securities Purchase Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Sixth Amendment as of the date first above written.

GALENA BIOPHARMA, INC.

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President and Chief Executive Officer

RXi PHARMACEUTICALS CORPORATION

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President

TANG CAPITAL PARTNERS, LP

By: /s/ Kevin C. Tang
Name: Kevin C. Tang
Title: Managing Director

RTW INVESTMENTS, LLC

By: /s/ Roderick Wong
Name: Roderick Wong
Title: Managing Member

[Signature Page to Sixth Omnibus Amendment]

Exhibit 10.10

SEVENTH AMENDMENT AGREEMENT

This SEVENTH AMENDMENT AGREEMENT (this " Seventh Amendment ") is made and entered into as of April 25, 2012, by and among Tang Capital Partners, LP, RTW Investments, LLC, Galena Biopharma, Inc. (formerly RXi Pharmaceuticals Corporation, " Galena ") and RXi Pharmaceuticals Corporation (formerly RNCS, Inc., " RXi ").

WHEREAS, the parties entered into a Securities Purchase Agreement dated as of September 24, 2011 (the " Securities Purchase Agreement ") and the Ancillary Agreements related thereto, including the Bridge Notes;

WHEREAS, the parties entered into several Omnibus Amendments dated as of February 6, 2012, March 5, 2012, March 30, 2012, April 3, 2012, April 11, 2012 and April 18, 2012 (the " Previous Amendments "), amending certain provisions of the Securities Purchase Agreement and the Bridge Notes;

WHEREAS, in light of certain developments with respect to litigation to which Galena is a party, RXi and the Investors wish to be indemnified and held harmless against any losses arising out of such litigation, and Galena wishes to so indemnify RXi and the Investors;

WHEREAS, Galena wishes to be assured, prior to effecting the Spin-Off, that certain facts of which the Investors are presently aware would not constitute a failure of a condition to the obligations of the Investors at the Closing;

WHEREAS, the parties desire to amend or waive certain other provisions of the Securities Purchase Agreement;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Certain Definitions . References herein to the "Securities Purchase Agreement" mean the Securities Purchase Agreement as amended by the Previous Amendments and by this Amendment, as the context requires. Capitalized terms used but not defined herein have the meanings ascribed in the Securities Purchase Agreement.

2. Indemnification of RXi and the Investors . Galena hereby agrees that, subject to the Closing, Galena's indemnification obligations under Section 9.01 of the Securities Purchase Agreement shall apply to all losses, liabilities, deficiencies, costs, damages and expenses (including, without limitation, reasonable attorneys' fees, charges and disbursements) incurred after the Closing as a result of as a result of claims brought by any of Galena's warrant holders solely arising out of or relating to the transactions contemplated by the Securities Purchase Agreement. Galena further agrees to indemnify RXi to the same extent it agrees to indemnify the Investors pursuant to the foregoing sentence. Galena's obligations under this Section 2 are subject to all of the provisions of Article IX of the Securities Purchase Agreement.

3. Certain Assurances . Each of the Investors hereby agrees and represents that, based on the information available to it, the execution and delivery of the Separation and

Settlement Agreement, dated as of the Closing Date, among RXi, Galena, the Investors, Anastasia Khvorova, Ph.D. and Advirna, LLC resolves and satisfies any and all conditions to the Closing contained in Article V of the Agreement as they relate to the employment of Dr. Khvorova by RXi or Galena or RXi's or Galena's prior dealings with Advirna, LLC. Each of the Investors and the other parties further agrees and represents that the provisions of Section 4.12(a) and Section 4.13(b) solely with respect to the time limits contained therein are hereby waived by all the parties.

4. Miscellaneous . Capitalized terms used herein and not defined shall have the meanings set forth in the Securities Purchase Agreement as amended. The terms and conditions set forth in Article X of the Securities Purchase Agreement are incorporated herein by reference. Except as specifically set forth in Section 3 hereof, nothing herein shall constitute a waiver of any provision of the Securities Purchase Agreement or any of the Ancillary Documents pursuant to Section 10.03 of the Securities Purchase Agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Seventh Amendment as of the date first above written.

GALENA BIOPHARMA, INC.

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President and Chief Executive Officer

RXi PHARMACEUTICALS CORPORATION

By: /s/ Mark J. Ahn
Name: Mark J. Ahn
Title: President

TANG CAPITAL PARTNERS, LP

By: /s/ Kevin C. Tang
Name: Kevin C. Tang
Title: Managing Director

RTW INVESTMENTS, LLC

By: /s/ Roderick Wong
Name: Roderick Wong
Title: Managing Member

[Signature Page to Seventh Omnibus Agreement]

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Mark J. Ahn, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Galena Biopharma, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: May 14, 2012

/s/ *Mark Ahn*
Mark J. Ahn
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Kwang S. Lee, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Galena Biopharma, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: May 14, 2012

/s/ *Kwang S. Lee*
Kwang S. Lee
Vice President, Finance (Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Galena Biopharma, Inc., (the "Company") on Form 10-Q for the period ended March 31, 2012 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officers of the Company certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to their knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the Company's financial condition and result of operations.

/s/ *Mark Ahn*
Mark J. Ahn
President and Chief Executive Officer

May 14, 2012

/s/ *Kwang S. Lee*
Kwang S. Lee
Vice President, Finance (Principal Financial and Accounting Officer

May 14, 2012