AtheroNova Inc.
Form 10-Q
May 10, 2012

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

þ 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 000-52315

AtheroNova Inc.
(Exact Name of Registrant as Specified in Its Charter)

Delaware	20-1915083
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

2301 Dupont Drive, Suite 525, Irvine, CA 92612
(Address of principal executive offices and zip code)

(949) 476-1100
(Registrant's telephone number, including area code)

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 þ No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
Yes þ 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.

Large accelerated filer ¨	Accelerated filer ¨	Non-accelerated filer ¨	Smaller reporting company þ

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

As of May 8, 2012 there were 28,450,260 shares of the issuer's common stock, $0.0001 par value per share, outstanding.

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Part I – Financial Information
Item 1. Financial Statements

ATHERONOVA INC.
(A Development Stage Company)
Condensed Consolidated Balance Sheets

Assets	March 31, 2012 (unaudited)	December 31, 2011
Current Assets		
Cash	$276,007	$616,067
Other Current Assets	7,213	12,909
Total Current Assets	283,220	628,976
Equipment, net	5,324	4,000
Total Assets	$288,544	$632,976
Liabilities and Stockholders' Deficiency		
Current Liabilities:		
Accounts payable and accrued expenses	$315,944	$170,449
Interest payable	45,754	39,716
Derivative Liability	4,483,747	6,211,021
Total Current Liabilities	4,845,445	6,421,186
2.5% Senior secured convertible notes, net of discount	452,183	395,655
Stockholders' Deficiency:		
Preferred stock $0.0001 par value, 10,000,000 shares authorized, none outstanding at March 31, 2012 and December 31, 2011	--	--
Common stock $0.0001 par value, 100,000,000 shares authorized, 28,450,260 and 28,390,260 outstanding at March 31, 2012 and December 31, 2011, respectively	2,834	2,828
Additional paid in capital	5,807,637	5,392,818
Deficit accumulated during the development stage	(10,819,555)	(11,579,511)
Total stockholders' deficiency	(5,009,084)	(6,183,865)
Total Liabilities and Stockholders' Deficiency	$288,544	$632,976

See accompanying notes to condensed consolidated financial statements.

ATHERONOVA INC.

(A Development Stage Company)
Condensed Consolidated Statements of Operations
(Unaudited)
For the three month periods ended March 31, 2012 and 2011,
And for the period from December 13, 2006 (Inception) through March 31, 2012

	Three months ended March 31, 2012	2011	Cumulative From Inception
Revenue, net	$--	$--	$--
Operating expenses:			
Research and development	161,305	88,263	1,034,380
General and administrative expenses	743,086	338,050	4,824,448
Impairment charge-intellectual property	--	--	572,868
Total operating expenses	904,391	426,313	6,431,696
Loss from operations	(904,391)	(426,313)	(6,431,696)
Other income (expenses):			
Other income	204	64	3,754
Merger-related expenses	--	--	(323,294)
Cancellation of related-party debt	--	--	100,000
Interest expense	(62,566)	(96,203)	(1,070,649)
Private Placement Costs	--	--	(2,148,307)
Gain on extinguishment of derivative liability	--	--	811,393
Change in fair value of derivative liabilities	1,727,274	7,221,430	(1,752,792)
Total other income (expense)	1,664,912	7,125,291	(4,379,895)
Net income (loss) before income taxes	760,521	6,698,978	(10,811,591)
Provision for income taxes	565	3,240	7,964
Net income (loss)	$759,956	$6,695,738	$(10,819,555)
Basic income per share	$0.03	$0.29	
Diluted income per share	$0.02	$0.25	
Basic weighted average shares outstanding	28,426,926	23,429,232	
Diluted weighted average shares outstanding	31,615,602	26,449,122	

See accompanying notes to condensed consolidated financial statements.

ATHERONOVA INC.

(A Development Stage Company)
Condensed Consolidated Statements of Stockholders' Equity (Deficiency)
For the period from December 31, 2011 through March 31, 2012 (unaudited)

Description	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Deficit Accumulated During Development Stage	Total Stockholders' Equity (Deficiency)
Balance – December 31, 2011	28,390,260	$ 2,828	$ 5,392,818	$ (11,579,511)	$ (6,183,865)
Fair value of vested options	--	--	221,675	--	221,675
Fair value of shares transferred to employees and vendors by controlling stockholder	--	--	123,050	--	123,050
Fair value of common stock issued for services	60,000	6	70,094	--	70,100
Net income	--	--	--	759,956	759,956
Balance – March 31, 2012	28,450,260	$ 2,834	$ 5,807,637	$ (10,819,555)	$ (5,009,084)

See accompanying notes to condensed consolidated financial statements.

ATHERONOVA INC.
(A Development Stage Company)
Condensed Consolidated Statements of Cash Flows
(Unaudited)
For the three month periods ended March 31, 2012 and 2011,
And for the period from December 13, 2006 (Inception) through March 31, 2012

	Three months ended March 31, 2012	2011	Cumulative From Inception
Operating Activities:			
Net income (loss)	$759,956	$6,695,738	$(10,819,555)
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Loss on settlement of payables	--	--	54,377
Amortization of debt discount	56,528	87,442	996,832
Depreciation	675	589	4,781
Stock based compensation	414,825	117,687	2,445,811
Impairment charge-intellectual property	--	--	572,867
Cost of private placement	--	--	2,148,307
Gain on extinguishment of debt	--	--	(811,393)
Change in fair value of derivative liabilities	(1,727,274)	(7,221,430)	1,752,792
Cancellation of debt	--	--	(100,000)
Changes in operating assets and liabilities:			
Other current assets	5,696	7,386	(7,213)
Accounts payable and accrued expenses	151,533	125,005	507,418
Net cash used in operating activities	(338,061)	(187,583)	(3,254,976)
Investing Activities			
Purchase of equipment	(1,999)	--	(10,105)
Investment in intellectual property	--	--	(372,867)
Cash received from reverse merger	--	--	1,281
Net cash used in investing activities	(1,999)	--	(381,691)
Financing Activities			
Proceeds from issuance of common stock	--	25,000	2,517,668
Proceeds from sale of 2.5% senior secured convertible notes, net	--	--	1,395,006
Net cash provided by financing activities	--	25,000	3,912,674
Net change in cash	(340,060)	(162,583)	276,007
Cash - beginning balance	616,067	177,802	--
Cash - ending balance	$276,007	$15,219	$276,007
Supplemental disclosure of cash flow information:			
Cash paid for income taxes	$565	$3,240	$7,964
Supplemental disclosure of non-cash investing and financing transactions:			
Stockholder notes issued in exchange for intellectual property	$--	$--	$200,000
Conversion of convertible notes payable to additional paid-in capital	$--	$--	$572,721
Derivative liability created on issuance of convertible notes and warrants created	$--	$--	$1,500,000
Reclass of accounts payable to related party notes	$--	$--	$100,000
Common stock issued to settle accounts payable	$--	$--	$72,999

See accompanying notes to condensed consolidated financial statements.

ATHERONOVA INC.
(A Development Stage Company)
Notes to Condensed Consolidated Financial Statements
Three Months Ended March 31, 2012 and 2011
(Unaudited)

The accompanying condensed consolidated financial statements of AtheroNova Inc. and subsidiary ("AtheroNova," "we," "us, "our" and "our Company") have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information and the rules and regulations of the Securities and Exchange Commission. Accordingly, the unaudited condensed consolidated financial statements do not include all information and footnotes required by accounting principles generally accepted in the United States of America for complete annual financial statements. In the opinion of management, the accompanying unaudited condensed consolidated financial statements reflect all adjustments, consisting of only normal recurring adjustments, considered necessary for a fair presentation. Interim operating results are not necessarily indicative of results that may be expected for the year ending December 31, 2012 or for any other interim period. These unaudited condensed consolidated financial statements should be read in conjunction with the Company's audited financial statements as of and for the year ended December 31, 2011, which are included in the Company's Report on Form 10-K for such year filed on March 16, 2012. The condensed consolidated balance sheet as of December 31, 2011 has been derived from the audited financial statements included in the Form 10-K for that year.

1. ORGANIZATION

Z&Z Medical Holdings, Inc. ("Z&Z Nevada") was incorporated under the laws of the State of Nevada on December 13, 2006 (Inception). Z&Z Nevada had its headquarters located in Laguna Niguel, California. On November 30, 2009, a separate corporation named Z&Z Medical Holdings, Inc. ("Z&Z Delaware") was incorporated under the laws of the State of Delaware and on March 3, 2010 Z&Z Nevada was merged into Z&Z Delaware. On May 13, 2010, pursuant to an Agreement and Plan of Merger dated March 26, 2010, (i) our subsidiary, Z&Z Merger Corporation, merged with and into Z&Z Delaware and the surviving subsidiary corporation changed its name to AtheroNova Operations, Inc. ("AtheroNova Operations"), (ii) we assumed all the outstanding options and warrants of Z&Z Delaware and (iii) we completed a Capital Raise Transaction in which we sold $1,500,000 in 2.5% Senior Secured Convertible Notes. The former holders of AtheroNova Operations' common stock became holders of approximately 98% of our outstanding common stock. On May 21, 2010, holders of approximately 76.7% of the then outstanding shares of our Super-Voting Common Stock, approximately 90.7% of the then outstanding shares of common stock, and approximately 77.1% of the combined voting power of the then outstanding shares of our Super-Voting Common Stock and our common stock approved an amendment of our certificate of incorporation that (i) decreased the authorized number of shares of our common stock to 100,000,000, (ii) designated 10,000,000 shares of blank check preferred stock, and (iii) adopted a 1-for-200 reverse stock split. The amendment to our certificate of incorporation became effective on June 23, 2010.

As a result of the merger AtheroNova is now engaged, through AtheroNova Operations, in development of pharmaceutical preparations and pharmaceutical intellectual property. The Company will continue to be a development stage company for the foreseeable future.

Immediately prior to the Merger, AtheroNova had 107,272,730 shares of its common stock issued and outstanding. In connection with the Merger, AtheroNova issued 88,575,048 shares of its Super-Voting Common stock in exchange for the issued and outstanding shares of common stock of AtheroNova Operations, and assumed AtheroNova Operations' outstanding options and warrants which became exercisable to purchase an aggregate of up to 16,552,227 shares of AtheroNova Super-Voting Common Stock. Upon the effectiveness of the 1-for-200 reverse stock split all shares of AtheroNova Super-Voting Common Stock were automatically converted on a 50-to-1 basis into AtheroNova

common stock, resulting in the issuance of 22,143,763 shares of AtheroNova common stock to the former holders of AtheroNova Operation's common stock, and the outstanding shares of common stock held by AtheroNova's existing stockholders were combined into 607,647 shares of AtheroNova common stock.

Since former holders of AtheroNova Operation's common stock owned, after the Merger, approximately 98% of AtheroNova's shares of common stock, and as a result of certain other factors, including that all members of the Company's executive management are members of AtheroNova Operation's management, AtheroNova Operations is deemed to be the acquiring company for accounting purposes and the merger was accounted for as a reverse merger and a recapitalization in accordance with generally accepted accounting principles in the United States ("GAAP"). These condensed consolidated financial statements reflect the historical results of AtheroNova Operations prior to the merger and that of the combined company following the merger, and do not include the historical financial results of AtheroNova prior to the completion of the merger. Common stock and the corresponding capital amounts of the Company pre-merger have been retroactively restated as capital stock shares reflecting the exchange ratio in the merger and subsequent 1-for-200 reverse stock split effected on June 23, 2010. In conjunction with the Merger, the Company assumed liabilities and incurred costs of $323,294 which have been reflected as costs of the reverse merger in the 2010 statement of operations.

2. BASIS OF PRESENTATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The summary of significant accounting policies presented below is designed to assist in understanding the Company's condensed consolidated financial statements. Such financial statements and accompanying notes are the representation of the Company's management, who is responsible for their integrity and objectivity.

Use of Estimates

In preparing these consolidated financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities as of the date of the condensed consolidated financial statements and the reported amount of revenues and expenses during the reporting periods. Actual results could differ from those estimates. Significant estimates and assumptions included in the Company's condensed consolidated financial statements relate to the valuation of long-lived assets, accrued other liabilities, and valuation assumptions related to share based payments and derivative liability.

Going Concern

The accompanying condensed consolidated financial statements have been prepared under the assumption that the Company will continue as a going concern. Such assumption contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has a stockholders deficiency of $5,009,084 at March 31, 2012, and has incurred recurring losses from operations since inception. These factors, among others, raise substantial doubt about the Company's ability to continue as a going concern. The condensed consolidated financial statements do not include any adjustments that might be necessary should the Company be unable to continue as a going concern.

Management is currently in the process of exploring private placements of securities by the Company to accredited investors, funds and institutional investors. Significant additional capital is needed to advance the Company's research and development as well as providing general working capital. Management believes that current funds will be sufficient to fund operations through July 2012. There can be no assurances that sufficient subsequent funding, if any at all, will be raised by this or future offerings or that the cost of such funding will be reasonable.

In light of the foregoing, management will also seek funding through grants and other such funds available from private and public sources established to further research in health care and advancement of science. Management continues to meet with representatives of private and public sources of funding to continue the ongoing process of capital development sufficient enough to cover negative cash flows expected in future periods and will continue to do so in the coming months.

Principles of Consolidation

The condensed consolidated financial statements include the accounts of the Company and its majority-owned subsidiary. All significant intercompany transactions and balances have been eliminated in consolidation.

Earnings and Loss per Share

The Company's computation of earnings per share ("EPS") includes basic and diluted EPS. Basic EPS is measured as the income (loss) available to common stockholders divided by the weighted average common shares outstanding for the period. Diluted EPS is similar to basic EPS but presents the dilutive effect on a per share basis of potential common shares (e.g., warrants and options) as if they had been converted at the beginning of the periods presented, or issuance date, if later. Potential common shares that have an anti-dilutive effect (i.e., those that increase income per share or decrease loss per share) are excluded from the calculation of diluted EPS.

Income (loss) per common share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding during the respective periods. Basic and diluted (loss) per common share is the same for periods in which the company reported an operating loss because all warrants and stock options outstanding are anti-dilutive.

A reconciliation of basic and diluted shares for the three months ended March 31, 2012 and 2011 follows:

	March 31, 2012	March 31, 2011
Average common shares outstanding-basic	28,426,926	23,429,232
Effect of dilutive securities-		
Warrants	2,918,439	2,756,074
Employee and director stock options	270,237	263,816
Average diluted shares	$31,615,602	$26,449,122

There were no adjustments to net income required for purposes of computing diluted earnings per share.

Warrants, options and other potentially dilutive securities are antidilutive and excluded from the dilutive calculations when their exercise or conversion price exceeds the average stock market price during the period or the effect would be anti-dilutive. The following table sets forth the shares excluded from the diluted calculation for the three month periods presented as follows:

	March 31, 2012	March 31, 2011
Convertible notes	3,294,314	3,568,108
Warrants	3,331,281	2,569,783
Employee and director stock options	4,286,761	2,425,814
Total potentially dilutive shares	$10,912,356	$8,563,705

Such securities could potentially dilute earnings per share in the future.

Derivative financial instruments

The Company evaluates all of its financial instruments to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. For derivative financial instruments that are accounted for as liabilities, the derivative instrument is initially recorded at its fair value and is then re-valued at each reporting date, with changes in the fair value reported in the consolidated statements of operations. For stock-based derivative financial instruments, the Company uses the Black-Scholes-Merton option pricing model to value the derivative instruments at inception and on subsequent valuation dates. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is evaluated at the end of each reporting period. Derivative instrument liabilities are classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument could be required within 12 months of the balance sheet date.

Fair value of financial instruments

Effective January 1, 2008, fair value measurements are determined by the Company's adoption of authoritative guidance issued by the FASB, with the exception of the application of the statement to non-recurring, non-financial assets and liabilities as permitted. The adoption of the authoritative guidance did not have a material impact on the Company's fair value measurements. Fair value is defined in the authoritative guidance as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. A fair value hierarchy was established, which prioritizes the inputs used in measuring fair value into three broad levels as follows:

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

Level 2—Inputs, other than the quoted prices in active markets, are observable either directly or indirectly.

Level 3—Unobservable inputs based on the Company's assumptions.

The Company is required to use observable market data if such data is available without undue cost and effort.

The following table presents certain investments and liabilities of the Company's financial assets measured and recorded at fair value on the Company's condensed consolidated balance sheets on a recurring basis and their level within the fair value hierarchy as of March 31, 2012.

	Level 1	Level 2	Level 3	Total
Fair value of Derivative Liability at March 31, 2012	$--	$--	$4,483,747	$4,483,747
	Level 1	Level 2	Level 3	Total
Fair value of Derivative Liability at December 31, 2011	$--	$--	$6,211,021	$6,211,021

At March 31, 2012 and December 31, 2011, the fair values of cash and cash equivalents, and accounts payable approximate their carrying values.

Recently Issued Accounting Standards

In May 2011, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update (ASU) No. 2011-04, "Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs". ASU No. 2011-4 does not require additional fair value measurements and is not intended to establish

valuation standards or affect valuation practices outside of financial reporting. The ASU is effective for interim and annual periods beginning after December 15, 2011. The Company adopted ASU No. 2011-04 effective January 1, 2012 and it did not affect the Company's results of operations, financial condition or liquidity.

In June 2011, the FASB issued ASU No. 2011-05, “Presentation of Comprehensive Income”. The ASU eliminates the option to present the components of other comprehensive income as part of the statement of changes in shareholders’ equity, and instead requires consecutive presentation of the statement of net income and other comprehensive income either in a continuous statement of comprehensive income or in two separate but consecutive statements. ASU No. 2011-5 is effective for interim and annual periods beginning after December 15, 2011. The Company adopted ASU 2011-05 effective January 1, 2012 and it did not affect the Company’s results of operations, financial condition or liquidity.

In September 2011, the FASB issued ASU 2011-08, “Testing Goodwill for Impairment”, an update to existing guidance on the assessment of goodwill impairment. This update simplifies the assessment of goodwill for impairment by allowing companies to consider qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount before performing the two step impairment review process. It also amends the examples of events or circumstances that would be considered in a goodwill impairment evaluation. The amendments are effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011. The Company adopted ASU 2011-08 effective January 1, 2012. We do not believe that the adoption of this new accounting guidance will have a significant effect on our goodwill impairment assessments in the future.

In December 2011, the FASB issued ASU No. 2011-11, “Balance Sheet (Topic 210): Disclosures about Offsetting Assets and Liabilities.” This ASU requires an entity to disclose information about offsetting and related arrangements to enable users of its financial statements to understand the effect of those arrangements on its financial position. ASU No. 2011-11 will be applied retrospectively and is effective for annual and interim reporting periods beginning on or after January 1, 2013. The Company does not expect adoption of this standard to have a material impact on its consolidated results of operations, financial condition, or liquidity.

Other recent accounting pronouncements issued by the FASB (including its Emerging Issues Task Force), the AICPA, and the Securities Exchange Commission (the "SEC") did not or are not believed by management to have a material impact on the Company's present or future consolidated financial statements.

3. 2.5% SENIOR SECURED CONVERTIBLE NOTES PAYABLE

Convertible notes payable consist of the following as of March 31, 2012 and December 31, 2011:

	March 31, 2012 (Unaudited)	December 31, 2011
Convertible Notes Payable	$ 955,351	$ 955,351
Less valuation Discount	(503,168)	(559,696)
Convertible Notes Payable, net	$ 452,183	$ 395,655

On May 13, 2010, we entered into a Securities Purchase Agreement with W-Net, Europa and MKM pursuant to which the Purchasers, purchased from us (i) 2.5% Senior Secured Convertible Notes for a cash purchase price of $1,500,000, and (ii) Common Stock Purchase Warrants pursuant to which the Purchasers may purchase up to 1,908,797 shares of our common stock at an exercise price equal to approximately $0.39 per share, subject to adjustment. A portion of the proceeds from the Capital Raise Transaction were used to pay $250,000 owed by us to the two principal holders of our common stock, W-Net and Europa, and to reimburse them for legal and accounting fees and $73,294 of other expenses incurred by them and our company in connection with the Merger and the Capital Raise Transaction. Such

costs have been reflected as costs of the reverse merger in the accompanying statement of operations. The net proceeds available to us for our operations were reduced by such payments.

The Original Notes accrued 2.5% interest per annum with a maturity of 4 years after the closing of the Capital Raise Transaction. No cash interest payments were required, except that accrued and unconverted interest would be due on the maturity date and on each conversion date with respect to the principal amount being converted, provided that such interest could be added to and included with the principal amount being converted. If there was an uncured event of default (as defined in the Notes), the holder of each Note could declare the entire principal and accrued interest amount immediately due and payable. Default interest would accrue after an event of default at an annual rate of 12%. If there was an acceleration, a mandatory default amount equal to 120% of the unpaid Note principal plus accrued interest could be payable.

The Warrants may be exercised on a cashless basis under which a portion of the shares subject to the exercise are not issued in payment of the purchase price, based on the then fair market value of the shares.

On May 13, 2010, we also entered into a Security Agreement and an Intellectual Property Security Agreement with the Purchasers and AtheroNova Operations, pursuant to which all of our obligations under the Notes are secured by first priority security interests in all of our assets and the assets of AtheroNova Operations, including intellectual property. Upon an event of default under the Notes or such agreements, the Note holders may be entitled to foreclose on any of such assets or exercise other rights available to a secured creditor under California and Delaware law. In addition, under a Subsidiary Guarantee, AtheroNova Operations guaranteed all of our obligations under the Notes.

Each Original Note was convertible at any time into common stock at a specified conversion price, which was approximately $0.39 per share, subject to adjustment. On July 6, 2011, the Company entered into an Amendment and Exchange Agreement with each of W-Net, Europa and MKM pursuant to which the Purchasers agreed to exchange the Original Notes for the Notes. The Notes have the same terms as the Original Notes (as described below), except that each Note is convertible at any time into common stock at a per share conversion price of $0.29, subject to adjustment.

The Notes may not be prepaid, or forced by us to be converted in connection with an acquisition of our company, except in a limited case more than a year after the Note issuance where the average of our stock trading price for 30 days on a national trading market other than the OTC Bulletin Board (“OTCBB”) is at least three times the conversion price, in which event, and subject to the satisfaction of certain other requirements, the Note holders may elect to receive at least double the unpaid principal amounts in cash and other requirements are satisfied. In such a limited case acquisition, there could also be a forced cashless exercise of the Warrants subject to similar requirements and optional cash payments to the Warrant holders of at least double the exercise prices of their Warrants.

The Note conversion price and the Warrant exercise price are subject to specified adjustments for certain changes in the numbers of outstanding shares of our common stock, including conversions or exchanges of such. If additional shares of our capital stock are issued, except in specified exempt issuances, for consideration which is less than the then existing Note conversion or Warrant exercise price, then such conversion or warrant price will be reduced by anti-dilution adjustments. For the first $400,000 of such “Dilutive Issuances,” the reduction will be made on a weighted average basis, taking into account the relative magnitudes of any Dilutive Issuance relative to the total number of outstanding shares. However, any further Dilutive Issuance would be subject to a more detrimental “full ratchet” adjustment that generally reduces the conversion or exercise price to equal the price in the Dilutive Issuance, regardless of the size of the Dilutive Issuance (see related accounting treatment for the Notes and Warrants below).

The Notes greatly restrict the ability of our company and AtheroNova Operations to issue indebtedness or grant liens on our or its respective assets without the Note holders’ consent. They also limit and impose financial costs on our acquisition by any third party.

Under the Securities Purchase Agreement, as amended, if we meet three specified operating benchmarks during the first twenty-four months after the closing of the first Original Note purchase, an additional $1,500,000 in Note purchases (without Warrants) can be requested by us from the Purchasers. The determination of whether we have met the benchmarks is solely at the discretion of the Purchasers. If the benchmarks are determined to have been achieved, then we can require the Purchasers to make the additional $1,500,000 of Note purchases. If such benchmarks are not attained in the 24-month period, then the Purchasers, in their discretion, during the next two months may elect to purchase up to $1,500,000 of Notes (without Warrants) having an initial conversion price which is 25% higher than the conversion price in the Notes.

Each of the Notes and Warrants includes an anti-dilution provision that allowed for the automatic reset of the conversion or exercise price upon any future sale of common stock instruments at or below the current conversion or exercise price. The Company considered the current Financial Accounting Standards Board guidance of "Determining Whether an Instrument Indexed to an Entity's Own Stock" which indicates that any adjustment to the fixed amount (either conversion price or number of shares) of the instrument regardless of the probability or whether or not within the issuers' control, means the instrument is not indexed to the issuers own stock. Accordingly, the Company determined that as the conversion price of the Notes and the strike price of the Warrants may fluctuate based on the occurrence of future offerings or events, such prices were not fixed amounts. As a result, the Company determined that the conversion features of the Notes and the Warrants are not considered indexed to the Company's own stock and characterized the value of the Notes and the Warrants as derivative liabilities upon issuance.

The Company determined that the fair value of the conversion feature at issuance was $2,370,245, and that the fair value of the warrant liability at issuance was $1,172,103, based upon a weighted average Black-Sholes-Merton calculation. The Company recorded the full value of the derivative as a liability at issuance with an offset to valuation discount, which will be amortized over the life of the Notes. As the aggregate fair value of these liabilities of $3,542,348 exceeded the aggregate value of the Notes of $1,500,000 at issuance, the excess of the liability over the aggregate value of the Notes of $2,042,348 was considered as a cost of the private placement in 2010. As of March 31, 2012, the Company has amortized $996,832 of the valuation discount, and the remaining unamortized valuation discount of $503,168 as of March 31, 2012 has been offset against the face amount of the Notes for financial statement purposes. The fair value of the derivative liabilities as of March 31, 2012 was $4,483,747 (see Note 4).

From issuance through March 31, 2012, the Purchasers exercised their option to convert a portion of the Original Notes into our common stock. During the year ended December 31, 2010, principal in the amount of $98,049 and accrued interest in the amount of $965 was converted at a per share price of approximately $0.39 into 249,488 and 2,456 shares, respectively, of our common stock. During the year ended December 31, 2011, principal on the amount of $446,600 was converted at a per share price of $0.29 into 1,540,000 shares of our common stock. In addition, the Company also issued 45,164 shares of our common stock with a market value of $27,098 to settle $13,098 of accrued interest relating to these notes. The issuance of these common shares resulted in an additional charge of $14,000 that has been reflected as a financing cost in the 2011 statement of operations. The aggregate balance of the Notes outstanding as of March 31, 2012 amounted to $955,351.

4. DERIVATIVE LIABILITY

In April 2008, the FASB issued a pronouncement that provides guidance on determining what types of instruments or embedded features in an instrument held by a reporting entity can be considered indexed to its own stock for the purpose of evaluating the first criteria of the scope exception in the pronouncement on accounting for derivatives. This pronouncement was effective for financial statements issued for fiscal years beginning after December 15, 2008. The adoption of these requirements can affect the accounting for warrants and many convertible instruments with provisions that protect holders from a decline in the stock price (or "down-round" provisions). For example, warrants with such provisions will no longer be recorded in equity. Down-round provisions reduce the exercise price of a warrant or convertible instrument if a company either issues equity shares for a price that is lower than the exercise price of those instruments or issues new warrants or convertible instruments that have a lower exercise price.

We evaluated whether convertible debt and warrants to acquire stock of the Company contain provisions that protect holders from declines in the stock price or otherwise could result in modification of the exercise price under the respective convertible debt and warrant agreements. We determined that the Notes and the Warrants issued to W-Net, Europa and MKM in May 2010 contained such provisions and recorded such instruments as derivative liabilities. Derivative liabilities were valued using the weighted-average Black-Scholes-Merton option pricing model, which approximates the Monte Carlo and other binomial valuation techniques, with the following assumptions:

	March 31, 2012 (Unaudited)	December 31, 2011
Conversion feature :		
Risk-free interest rate	0.33%	0.25%
Expected volatility	112%	134%
Expected life (in years)	2.12 years	2.37 years
Expected dividend yield	0.00%	0.00%
Warrants :		
Risk-free interest rate	0.33%	0.25%
Expected volatility	112%	134%
Expected weighted average life (in years)	2.12 years	2.37 years
Expected dividend yield	0.00%	0.00%
Fair Value :		
Conversion feature	$ 3,030,895	$ 4,104,613
Warrants	1,452,852	2,106,408
	$ 4,483,747	$ 6,211,021

The risk-free interest rate was based on rates established by the Federal Reserve Bank. The Company based the expected volatility assumption on a volatility index of peer companies as the Company did not have sufficient market information to estimate the volatility of its own stock, and the expected life of the instruments is determined by the expiration date of the instrument. The expected dividend yield was based on the fact that the Company has not paid dividends to common stockholders in the past and does not expect to pay dividends to common stockholders in the future.

The Company measured the aggregate fair value of the Original Notes and the Warrants issued on May 13, 2010 as $3,542,348. The value of the derivative liability at the date of issuance of $3,542,348 in excess of the Original Notes payable with a face amount of $1,500,000 was $2,042,348, and such amount was recognized in the 2010 statements of operations as a cost of the private placement. As of March 31, 2012, the Company re-measured the remaining derivative liabilities and determined the aggregate fair value to be $4,483,747. The Company recorded the change in fair value of the derivative liabilities of $1,727,274 in the accompanying statement of operations for the three months ending March 31, 2012.

5. STOCKHOLDERS' DEFICIENCY

Common Stock

On February 13, 2012 we issued 50,000 shares of our common stock valued at $1.20 per share, or $60,000, to a service provider in consideration of services rendered to the Company. The shares issued were valued at the trading price at the date of the agreement.

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On March 19, 2012 we issued 10,000 shares of our common stock valued at $1.01 per share, or $10,100, to a service provider in consideration of services rendered to the Company. The shares issued were valued at the trading price at the date of the agreement.

On March 26, 2012 a controlling stockholder transferred a total of 115,000 shares of common stock to directors, officers, employees and service providers of the company. Compensation expense totaling of $123,050 was recognized on the date of approval of the transfers which approximates the market value of the shares on the approval date.

Stock Options

The Company has a stockholder-approved stock incentive plan for employees under which it has granted stock options. In May 2010, the Company established the 2010 Stock Incentive Plan (the "2010 Plan"), which provides for the granting of awards to officers, directors, employees and consultants to purchase or acquire up to 4,362,964 shares of the Company's common stock. The awards have a maximum term of 10 years and vest over a period determined by the Company's Board of Directors and are issued at an exercise price determined by the Board of Directors. Options issued under the 2010 Plan will have an exercise price equal to or greater than the fair market value of a share of the Company's common stock at the date of grant. The 2010 Plan expires on May 20, 2020 as to any further granting of options. In the three months ended March 31, 2011 there were no options to purchase shares of the Company's common stock granted under the 2010 Plan. There were options outstanding to purchase a total of 4,556,998 shares granted under the 2010 Plan as well as outside the 2010 Plan as of March 31, 2012. There were 405,464 shares reserved for future grants under the 2010 Plan as of March 31, 2012.

A summary of the status of the Company's stock options as of March 31, 2012 and changes during the period then ended is presented below:

	Shares	Weighted average exercise price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at December 31, 2011	4,519,498	$ 1.129	6.16	1,140,059
Granted	50,000	$ 1.300	6.75	--
Exercised	--	--	--	--
Cancelled	(12,500)	1.110	-	
Outstanding at March 31, 2012	4,556,998	$ 1.131	5.924	$ 434,460
Exercisable at March 31, 2012	1,145,564	$ 0..912	5.304	$ 232,209
Weighted-average fair value of options granted during the three month period ended March 31, 2012	$ 1.180			

During the three months ended March 31, 2012, the Company recognized $221,675 of compensation costs related to the vesting of these options. As of March 31, 2012, the total compensation cost related to nonvested option awards not yet recognized is $2,874,607. The weighted average period over which it is expected to be recognized is approximately 3.25 years.

To compute compensation expense, the Company estimated the fair value of each option award on the date of grant using the Black-Scholes-Merton option pricing model for employees, and calculated the fair value of each option award at the end of the period for non-employees. The Company based the expected volatility assumption on a

volatility index of peer companies as the Company did not have sufficient market information to estimate the volatility of its own stock. The expected term of options granted represents the period of time that options are expected to be outstanding. The Company estimated the expected term of stock options by using the simplified method. The expected forfeiture rates are based on the historical employee forfeiture experiences. To determine the risk-free interest rate, the Company utilized the U.S. Treasury yield curve in effect at the time of grant with a term consistent with the expected term of the Company's awards. The Company has not declared a dividend on its common stock since its inception and has no intentions of declaring a dividend in the foreseeable future and therefore used a dividend yield of zero.

The following table shows the weighted average assumptions the Company used to develop the fair value estimates for the determination of the compensation charges in the three months ended March 31, 2012 and 2011:

	Three months ended March 31, 2012		2011
Expected volatility	1.23	%	--
Dividend yield	--		--
Expected term (in years)	4.25		--
Risk-free interest rate	0.90	%	--

Warrants

As of March 31, 2012 there are warrants to purchase 6,249,720 shares of our common stock outstanding with expiration dates ranging from February 2013 through December 2015 and exercise prices ranging from $0.22 to $1.64. A summary of the status of our warrants as of March 31, 2012 and changes during the period then ended is presented below:

	Shares	Weighted average exercise price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at December 31, 2011	6,249,720	$ 0.377	2.665	5,836,989
Granted	--	$ --	--	--
Exercised	--	--	--	--
Cancelled	--	--	--	--
Outstanding at March 31, 2012	6,249,720	$ 0.377	2.415	$ 4,022,023
Exercisable at March 31, 2012	6,249,720	$ 0.377	2.415	$ 4,022,023

6. COMMITTMENTS

CardioNova Agreement

In October 2011, we entered into two definitive agreements with OOO CardioNova, a wholly-owned subsidiary of Maxwell Biotech Group, a Russian biotech fund, covering our AHRO-001 compound. The agreements cover a territory represented by the Russian Federation, the Ukraine and various countries in central Asia (the “Territory”).

Under the licensing agreement OOO CardioNova (“CardioNova”) will become an equity investor in our company in exchange for the funding of Phase 1 and 2 human clinical trials conducted by a Clinical Research Organization (“CRO”) located in Russia. Terms of the agreement specify that a Joint Steering Committee be established between both entities to determine the final clinical protocols and research budget, which is expected to total approximately $3.8 million. Upon acceptance of the development plan, common stock equal to 10% of the research budget will be issued to CardioNova at a 20-day weighted average price prior to the signature of the initial term sheet, or $0.97 per share.

Additional common stock issuances of 20%, 40%, and 30% of the approved budget shall be issued upon the approval of the Joint Steering Committee of the Phase 1 protocol, announcement of Phase 1 results and announcement of Phase 2 results, respectively. Each tranche will be priced at the lower of the weighted 20-day average price immediately prior to each issuance event, or $0.97 per share, whichever is lower.

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If CardioNova successfully develops and commercializes AHRO-001 in the Territory, we will be entitled to receive a quarterly royalty, based on net sales during the period using an escalating scale. The royalty agreement shall remain in force for the period in which intellectual property rights for AHRO-001 are in full force and effect in the Territory.

Under the Securities Purchase Agreement, CardioNova will purchase up to 275,258 shares of our common stock for a cash purchase price of $0.97 per share. This transaction will take place in two installments. The first installment, which took place in December 2011, was for the issuance of 154,639 shares upon receipt of $150,000 as specified in the License Agreement. The 2nd installment of 120,619 shares will occur upon delivery of the final clinical product to be used in the Phase 1 and 2 clinical trials, which is expected to occur in the 3rd or 4th quarter of 2012.

Research Agreement

We have a research agreement signed in 2010 with the cardiology research department of a major hospital institution in Southern California to carry out our second round of pre-clinical research. The agreement calls for payment of all research and clinical costs relating to the study of dosage and efficacy of bile salts on the atherosclerotic plaque in a non-human model. The total potential cost of the project is $312,583, to be paid in installments over the length of the study and associated manuscript based on the study data. To date, $190,000 has been paid based on the achievement benchmarks under the agreement.

7. RELATED PARTY TRANSACTIONS

Accounts payable include $45,668 and $17,325 as of March 31, 2012 and December 31, 2012, respectively, that are payable to officers and directors of the Company.

8. SUBSEQUENT EVENTS

On April 18, 2012, we entered into a contract with a Pennsylvania-based Clinical Research Organization (‘CRO”) specializing in formulation and manufacturing of clinical research grade pharmaceutical products. The contract calls for the CRO to use our API to formulate and manufacture Phase 1 and 2 clinical trial pharmaceutical products. The process will take place over the next several months and total costs will be approximately $375,000.

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

This discussion summarizes the significant factors affecting our operating results, financial condition and liquidity and cash flows for the three months ended March 31, 2012 and 2011. The discussion and analysis that follows should be read together with the condensed consolidated financial statements and the notes to the financial statements included elsewhere in this report. Except for historical information, the matters discussed in this Management's Discussion and Analysis of Financial Condition and Results of Operations are forward looking statements that involve risks and uncertainties and are based upon judgments concerning various factors that are beyond our control. Our actual results could differ materially from the results anticipated in any forward-looking statements as a result of a variety of factors, including those discussed in the section of our annual report on Form 10-K captioned "Risk Factors."

Overview

Z&Z Medical Holdings, Inc. ("Z&Z Nevada") was incorporated in the State of Nevada on December 13, 2006 with contributed intellectual property from its founders. Z&Z Nevada was engaged in developing the contributed intellectual property while seeking sources of funding to conduct further research and development. In November 2009 we incorporated a separate company, Z&Z Medical Holdings Inc. in Delaware ("Z&Z Delaware") and merged Z&Z Nevada into Z&Z Delaware in March 2010. On March 26, 2010 we entered into a merger agreement between us, Z&Z Delaware and Z&Z Merger Corporation, our wholly-owned subsidiary and on May 13, 2010, Z&Z Delaware merged into Z&Z Merger Corporation and became our operating subsidiary. Concurrent with the merger, Z&Z Delaware changed its name to AtheroNova Operations Inc. ("AtheroNova Operations") and we changed our name to AtheroNova Inc. The business of AtheroNova Operations, pharmaceuticals and pharmaceutical intellectual property, became our business upon consummation of the merger. Concurrent with the closing of the merger we consummated a capital raise transaction, in which we sold to investors $1,500,000 in 2.5% Senior Secured Convertible Notes and Common Stock Purchase Warrants to purchase 1,908,798 shares of our commons stock.

We have developed intellectual property, covered by our pending patent applications, which uses certain pharmacological compounds uniquely for the treatment of atherosclerosis, which is the primary cause of cardiovascular diseases. Atherosclerosis occurs when cholesterol of fats are deposited and form as plaques on the walls of the arteries. This buildup reduces the space within the arteries through which blood can flow. The plaque can also rupture, greatly restricting or blocking blood flow altogether. Through a process called delipidization, such compounds dissolve the plaques so they can be eliminated through normal body processes and avoid such rupturing or restriction of blood flow. Such compounds may be used both to treat and prevent atherosclerosis.

In the near future, we plan to continue studies and preparation for human clinical trials to demonstrate the efficacy of our IP and related Active Pharmaceutical Ingredient ("API"). Ultimately, we plan to use or license our technology to various licensees throughout the world who may use it in treating or preventing atherosclerosis and other medical conditions or sublicense the IP or API to other such users. Our potential licensees may also produce, market or distribute products which utilize or add our compounds and technology in such treatment or prevention.

General

Operating expenses consist primarily of payroll and related costs, corporate infrastructure costs and research costs. We expect that our operating expenses will increase as we initiate production of API sufficient to use in toxicology studies, formulation development and tableting quantities necessary for Phase 1 and 2 clinical trials, advancing our business plan, in addition to the added costs of operating as a public company.

Historically, we have funded our working capital needs primarily through the sale of shares of our capital stock and debt financing.

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The merger was accounted for as a reverse merger (recapitalization) with AtheroNova Operations deemed to be the accounting acquirer, and our company deemed to be the legal acquirer. Accordingly, the following discussing represents a discussion of the operations of our wholly-owned subsidiary, AtheroNova Operations for the periods presented.

Results of Operations

Three-month Period ended March 31, 2012 vs. 2011

	Quarters ended March 31, 2011	2010	Increase (decrease)
Costs and expenses:			
Research and development:			
Share-based compensation	$ -	$ -	$ -
Other research and development expenses	161,305	88,263	73,042
Total research and development expenses	161,305	88,263	73,042
General and administrative:			
Share-based compensation	414,825	117,687	297,138
Other general and administrative expenses	328,261	220,363	107,898
Total general and administrative expenses	743,086	338,050	405,036
Interest expense	62,566	96,203	(33.637)
Change in fair value of derivative liabilities	(1,727,274)	(7,221,430)	5,494,156
Other (income) expense	361	3,176	(2,815)
Total other (income) expense	(1,664,347)	(7,122,051)	5,457,704
Net (income) loss	$ (759,956)	$ (6,695,738)	$ (5,935,782)

Three months ended March 31, 2012 Compared to the three months ended March 31, 2011

During the three month periods ended March 31, 2012 and 2011, we did not recognize any revenues. We are considered a development stage company and do not expect to have revenues relating to our products in the foreseeable future, if at all.

For the quarters ended March 31, 2012 and 2011, research and development expenses increased to $161,305 from $88,263. This increase is primarily the result of expenses associated with the development and production of our first clinical grade active pharmaceutical ingredient for preliminary toxicology testing. This cost was partially offset by reduced pre-clinical study expenses in the current quarter when compared to the same period in the prior year due to the completion of the laboratory phase of those trials during 2011.

General and administrative costs increased to $743,086 in the first quarter of 2012 compared to $338,050 for the quarter ended March 31, 2011, or an increase of $405,036. The increase in costs incurred in 2012 is due to the costs associated with consultants, investor relations and other costs associated with our public-company status as well as the cost of stock based compensation expense of $344,725 for our officers and directors, when compared to the same period of 2011.

For the quarter ended March 31, 2012 interest expense was $62,566 compared to $96,203 in the quarter ended March 31, 2011. This change is due to a lower outstanding balance on the 2.5% Senior Secured Convertible Notes (“Notes”) in the current year when compared to the prior year.

Change in fair value of derivative liabilities resulted in income of $1,727,274 in the three months ended March 31, 2012 compared to income of $7,221,430 for the three months ended March 31, 2011. This change in fair value results from revaluing our derivative liabilities associated with the outstanding balance of convertible notes and warrants issued in 2010.

Net income for the quarter ended March 31, 2012 was $759,956 compared to net income of $6,695,738 for the quarter ended March 31, 2011 due to the income generated from the re-valuing our derivative liabilities which is only partially offset by payroll and stock based compensation for employees, officers and directors retained by the us as well as the costs associated with the development and formulation of clinical-grade active pharmaceutical ingredient.

Liquidity and Capital Resources

From inception to March 31, 2012, we incurred a deficit during the development stage of $10,819,555 primarily as a result of our losses from operations and the non-cash costs relating to the accounting of debt, derivative and warrant issuances. We expect to continue to incur additional losses for at least the next twelve months and for the foreseeable future. These losses have been incurred through a combination of research and development activities as well as patent work related to our technology, expenses related to the merger and to public reporting obligations and the costs to supporting all of these activities.

We have financed our operations since inception primarily through equity and debt financings. During the three months ended March 31, 2012, we had a net decrease in cash and cash equivalents of $340,060. This decrease resulted largely from net cash used in operating activities of $338,061, and we had no financing activities in the same period. Total liquid resources as of March 31, 2012 were $276,007 compared to $616,067 at December 31, 2011.

As of March 31, 2012, excluding our derivative liability of $4,483,747, we had a working capital deficit of $78,478 compared to working capital of $418,811 at December 31, 2011, when excluding our derivative liability of $6,211,021 as of that date.

Our available working capital and capital requirements will depend upon numerous factors, including progress of our research and development programs, our progress in and the cost of ongoing and planned nonclinical and clinical testing, the timing and cost of obtaining regulatory approvals, the cost of filing, prosecuting, defending, and enforcing patent claims and other intellectual property rights, in-licensing activities, competing technological and market developments, the resources that we devote to developing manufacturing and commercializing capabilities, the status of our competitors, our ability to establish collaborative arrangements with other organizations and our need to purchase additional capital equipment.

Our continued operations will depend on whether we are able to raise additional funds through various potential sources, such as equity and debt financing, other collaborative agreements, strategic alliances, and our ability to realize the full potential of our technology in development. Such additional funds may not become available on acceptable terms and there can be no assurance that any additional funding that we do obtain will be sufficient to meet our needs in the long term. Through March 31, 2012, a significant portion of our financing has been through private placements of common stock and warrants and debt financing. Unless our operations generate significant revenues and cash flows from operating activities, we will continue to fund operations from cash on hand and through sources of capital similar to those previously described. We can give no assurances that any additional capital that we are able to obtain will be sufficient to meet our needs. We believe that we will continue to incur net losses and negative cash flows from operating activities for the foreseeable future.

There can be no assurances that sufficient subsequent funding, if any at all, will be raised by these or future discussions or the cost of such investments will be reasonable. Furthermore, we will need additional financing thereafter to complete development and commercialization of our products. There can be no assurances that we can successfully complete development and commercialization of our products.

These matters raise substantial doubt about our ability to continue as a going concern. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We have reported a net operating loss of $904,391 in the three months ended March 31, 2012, offset by non-cash income on valuation of derivative liabilities of $1,727,274, compared to a net operating loss of $426,313 for the three month periods ended March 31, 2011, offset by non-cash gains on valuation of derivative liabilities of $7,221,430. The net loss attributable to common shares from date of inception, December 13, 2006 to March 31, 2012, amounts to $10,819,555. Management believes that we will continue to incur net losses through at least March 31, 2013.

Amended and Restated 2.5% Senior Secured Convertible Notes Payable

On May 13, 2010, we entered into a Securities Purchase Agreement with W-Net Fund I, L.P. ("W-Net"), Europa International, Inc. ("Europa"), and MKM Opportunity Master Fund, Ltd. ("MKM" and together with W-Net and Europa, the "Purchasers"), pursuant to which the Purchasers, on May 13, 2010, purchased from us (i) Original Notes for a cash purchase price of $1,500,000, and (ii) Warrants pursuant to which the Purchasers may purchase up to 1,908,798 shares of our common stock at an exercise price equal to approximately $0.39 per share (the "Capital Raise Transaction"). A portion of the proceeds from the Capital Raise Transaction were used to pay $250,000 owed by us to the two principal holders of our common stock, W-Net and Europa, and to reimburse them for legal and accounting fees and other expenses incurred by them and our company in connection with the merger and the Capital Raise Transaction. The net proceeds available to us for our operations were reduced by such payments.

On July 6, 2011, we entered into an Amendment and Exchange Agreement with each of W-Net, Europa and MKM pursuant to which the Purchasers agreed to exchange the Original Notes for Amended and Restated 2.5% Senior Secured Convertible Notes (the "Notes") and to amend the Securities Purchase Agreement to extend, for a period of 12 months, our right to cause the Purchasers to purchase their pro rata share of an aggregate of $1,500,000 in additional Notes provided that we meet three operating benchmarks specified in the Securities Purchase Agreement (the "Specified Benchmarks"), in consideration of our agreement to extend, for a period of 12 months, each Purchaser's right to cause us to sell to such Purchaser its pro rata portion of an aggregate of $1,500,000 in additional Notes if we fail to meet the Specified Benchmarks.

The Notes pay 2.5% interest per annum with a maturity of 4 years after the closing of the Capital Raise Transaction. No cash interest payments are required, except that accrued and unconverted interest shall be due on the maturity date and on each conversion date with respect to the principal amount being converted, provided that such interest may be added to and included with the principal amount being converted. If there is an uncured event of default (as defined in the Notes), the holder of each Note may declare the entire principal and accrued interest amount immediately due and payable. Default interest will accrue after an event of default at an annual rate of 12%. If there is an acceleration, a mandatory default amount equal to 120% of the unpaid Note principal plus accrued interest may be payable.

The Warrants may be exercised on a cashless basis under which a portion of the shares subject to the exercise are not issued in payment of the purchase price, based on the then fair market value of the shares.

On May 13, 2010, we also entered into a Security Agreement and an Intellectual Property Security Agreement with the Purchasers and AtheroNova Operations, pursuant to which all of our obligations under the Notes are secured by first priority security interests in all of our assets and the assets of AtheroNova Operations, including intellectual property. Upon an event of default under the Notes or such agreements, the Note holders may be entitled to foreclose on any of such assets or exercise other rights available to a secured creditor under California and Delaware law. In addition, under a Subsidiary Guarantee, AtheroNova Operations will guarantee all of our obligations under the Notes.

Each Note is convertible at any time into common stock at $0.29 per share. Original Note principal in the amount of $98,049 and $446,600 has been converted in 2010 and 2011, respectively. Immediate conversion of the remaining balance outstanding on the Notes of $955,351 would result in the holders receiving 3,294,314 shares of our common stock. Interest expense of $965 accrued on the converted portion of the Original Notes from the date of issuance through the respective conversion dates in 2010 and $13,098 accrued on the converted portion in 2011 resulted in the issuance of 47,620 shares of our common stock in lieu of cash payment of the interest expense. Additional interest expense of $14,001 was recorded using current valuations for interest expense paid with the issuance of common stock.

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The Notes may not be prepaid, or forced by us to be converted in connection with an acquisition of our company, except in a limited case more than a year after the Note issuance where the average of our stock trading price for 30 days on a national trading market other than the OTC Bulletin Board ("OTCBB") is at least three times the conversion price, in which event, and subject to the satisfaction of certain other requirements, the Note holders may elect to receive at least double the unpaid principal amounts in cash and other requirements are satisfied. In such a limited case acquisition, there could also be a forced cashless exercise of the Warrants subject to similar requirements and optional cash payments to the Warrant holders of at least double the exercise prices of their Warrants.

The Note conversion price and the Warrant exercise price will be subject to specified adjustments for certain changes in the numbers of outstanding shares of our common stock, including conversions or exchanges of such. If additional shares of our capital stock are issued, except in specified exempt issuances, for consideration which is less than the then existing Note conversion or Warrant exercise price, then such conversion or exercise price will be reduced by anti-dilution adjustments. For the first $400,000 of such "Dilutive Issuances," the reduction will be made on a weighted average basis, taking into account the relative magnitudes of any Dilutive Issuance relative to the total number of outstanding shares. However, any further Dilutive Issuance would be subject to a more detrimental "full ratchet" adjustment that generally reduces the conversion or exercise price to equal the price in the Dilutive Issuance, regardless of the size of the Dilutive Issuance.

The Notes greatly restrict the ability of our company or AtheroNova Operations to issue indebtedness or grant liens on our or its respective assets without the Note holders' consent. They also limit and impose financial costs on our acquisition by any third party.

Under the Securities Purchase Agreement, as amended on July 6, 2011, if we meet three specified operating benchmarks during the first twenty-four months after the closing of the first Original Note purchase, an additional $1,500,000 in Note purchases (without Warrants) can be requested by us from the Purchasers. The determination of whether we have met the benchmarks is solely at the discretion of the Purchasers. If the benchmarks are determined to have been achieved, then we can require the Purchasers to make the additional $1,500,000 of Note purchases. If such benchmarks are not attained in the 24-month period, then the Purchasers, in their discretion, during the next two months may elect to purchase up to $1,500,000 of Notes (without Warrants) having an initial conversion price which is 25% higher than the conversion price in the Notes.

Commitments

Development Commitments

In October 2011, we entered into two definitive agreements with OOO CardioNova, a wholly-owned subsidiary of Maxwell Biotech Group, a Russian biotech fund, covering our AHRO-001 compound. The agreements cover a territory represented by the Russian Federation, the Ukraine and various countries in central Asia (the "Territory").

Under the licensing agreement OOO CardioNova ("CardioNova") will become an equity investor in our company in exchange for the funding of Phase 1 and 2 human clinical trials conducted by a Clinical Research Organization ("CRO") located in Russia. Terms of the agreement specify that a Joint Steering Committee be established between both entities to determine the final clinical protocols and research budget, which is expected to total approximately $3.8 million. Upon acceptance of the development plan, common stock equal to 10% of the research budget will be issued to CardioNova at a 20-day weighted average price prior to the signature of the initial term sheet, or $0.97 per share.

Additional common stock issuances of 20%, 40%, and 30% of the approved budget shall be issued upon the approval of the Joint Steering Committee of the Phase 1 protocol, announcement of Phase 1 results and announcement of Phase 2 results, respectively. Each tranche will be priced at the lower of the weighted 20-day average price immediately

prior to each issuance event, or $0.97 per share, whichever is lower.

If CardioNova successfully develops and commercializes AHRO-001 in the Territory, we will be entitled to receive a quarterly royalty, based on net sales during the period using an escalating scale. The royalty agreement shall remain in force for the period in which intellectual property rights for AHRO-001 are in full force and effect in the Territory.

Under the Securities Purchase Agreement, CardioNova will purchase up to 275,258 shares of our common stock for a cash purchase price of $0.97 per share. This transaction will take place in two installments. The first installment, which took place in December 2011, was for the issuance of 154,639 shares upon receipt of $150,000 as specified in the License Agreement. The 2nd installment of 120,619 shares will occur upon delivery of the final clinical product to be used in the Phase 1 and 2 clinical trials, which is expected to occur in the 3rd or 4th quarter of 2012.

Research and Development Projects

We have a research agreement signed in 2010 with the cardiology research department of a major hospital institution in Southern California to carry out our second round of pre-clinical research. The agreement calls for payment of all research and clinical costs relating to the study of dosage and efficacy of bile salts on the atherosclerotic plaque in a non-human model. The total potential cost of the project is $312,583, to be paid in installments over the length of the study and associated manuscript based on the study data. To date, $190,000 has been paid based on the achievement benchmarks under the agreement

Summary of Contractual Commitments

Employment Agreements

Employment agreements with our Chief Executive Officer and Chief Financial Officer are incorporated by reference to Exhibits 10.1 and 10.2 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities Exchange Commission (“SEC”) on September 3, 2010.

Off-Balance Sheet Arrangements

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

Critical Accounting Policies

In December 2001, the SEC requested that all registrants discuss their most “critical accounting policies” in management’s discussion and analysis of financial condition and results of operations. The SEC indicated that a “critical accounting policy” is one which is both important to the portrayal of the company’s financial condition and results and requires management’s most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain 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. On an ongoing basis, management evaluates its estimates and judgment, including those related to revenue recognition, accrued expenses, financing operations and contingencies and litigation. Management bases its estimates and judgment on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual

results could differ from those estimates under different assumptions or conditions. The following represents a summary of our critical accounting policies.

Research and Development Expenses

All research and development costs are expensed as incurred and include costs of consultants and contract research facilities who conduct research and development on our behalf and on behalf of AtheroNova Operations. We have contracted with third parties to facilitate, coordinate and perform agreed upon research and development of our technology. We have expensed all costs associated with the conduct of the laboratory research as well as the costs associated with peripheral clinical researchers as period costs.

Stock-Based Compensation

We periodically issues stock options and warrants to employees and non-employees in non-capital raising transactions for services and for financing costs. We account for stock option and warrant grants issued and vesting to employees based on the authoritative guidance provided by the Financial Accounting Standards Board whereas the value of the award is measured on the date of grant and recognized over the vesting period. We account for stock option and warrant grants issued and vesting to non-employees in accordance with the authoritative guidance of the Financial Accounting Standards Board whereas the value of the stock compensation is based upon the measurement date as determined at either a) the date at which a performance commitment is reached, or b) at the date at which the necessary performance to earn the equity instruments is complete. Non-employee stock-based compensation charges generally are amortized over the vesting period on a straight-line basis. In certain circumstances where there are no future performance requirements by the non-employee, option grants are immediately vested and the total stock-based compensation charge is recorded in the period of the measurement date.

The fair value of our common stock option and warrant grant is estimated using the Black-Scholes-Merton option pricing model, which uses certain assumptions related to risk-free interest rates, expected volatility, expected life of the common stock options, and future dividends. Compensation expense is recorded based upon the value derived from the Black-Scholes-Merton option pricing model, and based on actual experience. The assumptions used in the Black-Scholes-Merton option pricing model could materially affect compensation expense recorded in future periods.

Derivative Financial instruments

We evaluate all of our financial instruments to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. For derivative financial instruments that are accounted for as liabilities, the derivative instrument is initially recorded at its fair value and is re-valued at each reporting date, with changes in fair value reported in the condensed consolidated statement of operations. For stock-based derivative financial instruments, we use the Black-Scholes-Merton option pricing model to value the derivatives instruments at inception and on subsequent valuation dates. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is evaluated at the end of each reporting period. Derivative instrument liabilities are classified in the balance e sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument could be required within 12 months of the balance sheet date.

Recently Issued Accounting Standards

In May 2011, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (ASU) No. 2011-04, “Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs”. ASU No. 2011-4 does not require additional fair value measurements and is not intended to establish valuation standards or affect valuation practices outside of financial reporting. The ASU is effective for interim and annual periods beginning after December 15, 2011. We adopted ASU No. 2011-04 effective January 1, 2012 and it did not affect our results of operations, financial condition or liquidity.

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In June 2011, the FASB issued ASU No. 2011-05, “Presentation of Comprehensive Income”. The ASU eliminates the option to present the components of other comprehensive income as part of the statement of changes in shareholders’ equity, and instead requires consecutive presentation of the statement of net income and other comprehensive income either in a continuous statement of comprehensive income or in two separate but consecutive statements. ASU No. 2011-5 is effective for interim and annual periods beginning after December 15, 2011. We adopted ASU 2011-05 effective January 1, 2012 and it did not affect our results of operations, financial condition or liquidity.

In September 2011, the FASB issued ASU 2011-08, “Testing Goodwill for Impairment”, an update to existing guidance on the assessment of goodwill impairment. This update simplifies the assessment of goodwill for impairment by allowing companies to consider qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount before performing the two step impairment review process. It also amends the examples of events or circumstances that would be considered in a goodwill impairment evaluation. The amendments are effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011. We adopted ASU 2011-08 effective January 1, 2012. We do not believe that the adoption of this new accounting guidance will have a significant effect on our goodwill impairment assessments in the future.

In December 2011, the FASB issued ASU No. 2011-11, “Balance Sheet (Topic 210): Disclosures about Offsetting Assets and Liabilities.” This ASU requires an entity to disclose information about offsetting and related arrangements to enable users of its financial statements to understand the effect of those arrangements on its financial position. ASU No. 2011-11 will be applied retrospectively and is effective for annual and interim reporting periods beginning on or after January 1, 2013. We do not expect adoption of this standard to have a material impact on our consolidated results of operations, financial condition, or liquidity.

Other recent accounting pronouncements issued by the FASB (including its Emerging Issues Task Force), the AICPA, and the SEC did not or are not believed by management to have a material impact on our present or future consolidated financial statements.

Item 3. Quantitative and Qualitative Disclosure About Market Risk

As a “smaller reporting company” as defined by Rule 229.10(f)(1), we are not required to provide the information required by this Item 3.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of March 31, 2012, we carried out an evaluation, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”)). Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of that date to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and to ensure that information required to be disclosed by us in such reports is accumulated and communicated to the our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Our disclosure controls or internal controls over financial reporting were designed to provide only reasonable assurance that such disclosure controls or internal control over financial reporting will prevent all errors or all instances of fraud, even as the same are improved to address any deficiencies. The design of any system of controls is

based in part upon certain assumptions about the likelihood of future events, and there can be only reasonable, not absolute assurance that any design will succeed in achieving its stated goals under all potential future conditions. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs.

Because of the inherent limitation of a cost-effective control system, misstatements due to error or fraud may occur and not be detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls.

Changes in Internal Control

During the quarter ended March 31, 2012, there were no changes in internal controls over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

Part II – Other Information

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

On February 13, 2012 we issued 50,000 shares of our common stock valued at $60,000, or $1.20 per share based on the closing sale price of our common stock on the date of issuance (as quoted on the OTCQB), to a service provider in consideration of services rendered to us.

On March 19, 2012 we issued 10,000 shares of our common stock valued at $10,100, or $1.01 per share based on the closing sale price of our common stock on the date of issuance (as quoted on the OTCQB), to a service provider in consideration of services rendered to us.

In making the stock issuances described above without registration under the Securities Act of 1933, as amended (the "Securities Act"), we relied upon one or more of the exemptions from registration contained in and/or promulgated under Section 4(2) of the Securities Act as each of the stock recipients was an accredited investor and no general solicitation or advertising was used in connection with the stock issuances.

Item 6. Exhibits

Exhibit No.	Description
31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934, as amended.
31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934, as amended.
32.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002.
101.INS**	XBRL Instance.
101.SCH**	XBRL Taxonomy Extension Schema.
101.CAL**	XBRL Taxonomy Extension Calculation.
101.DEF**	XBRL Taxonomy Extension Definition.
101.LAB**	XBRL Taxonomy Extension Labels.
101.PRE**	XBRL Taxonomy Extension Presentation.

** XBRL information is furnished and not filed or a part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, as amended, is deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, as amended, and otherwise is not subject to liability under these sections.

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.

ATHERONOVA INC.

Date: May 10, 2012

By: /s/ Mark Selawski
Mark Selawski
Chief Financial Officer
(Principal financial and accounting officer)