AtheroNova Inc.
Form 424B3
September 29, 2010

Prospectus

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Registration Statement No.
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ATHERONOVA INC.

1,805,825 Shares
Common Stock

This prospectus relates to the offer and sale from time to time of up to 1,805,825 shares of our common stock that are held by the stockholders named in the "Principal and Selling Stockholders" section of this prospectus. The prices at which the selling stockholders may sell the shares in this offering will be determined by the prevailing market price for the shares or in negotiated transactions. We will not receive any of the proceeds from the sale of the shares. We will bear all expenses of registration incurred in connection with this offering. The selling stockholders whose shares are being registered will bear all selling and other expenses.

Our common stock is quoted on the OTC Bulletin Board under the symbol "AHRO." On September 7, 2010, the last reported sales price of our common stock on the OTC Bulletin Board was $2.00 per share (accounting for a 1-for-200 reverse stock split).

Investing in our common stock involves risks. See "Risk Factors" beginning on page 4.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is September 28, 2010

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You should rely only on the information contained in this prospectus or any supplement. We have not authorized anyone to provide information that is different from that contained in this prospectus. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Except as otherwise indicated, information in this prospectus reflects the reverse merger (recapitalization) that occurred on May 13, 2010 with AtheroNova Operations, Inc. (formerly Z&Z Medical Holdings, Inc.), and a 1-for-200 reverse stock split of our common stock which took effect on and as of June 23, 2010.

PROSPECTUS SUMMARY

This summary highlights selected information contained in greater detail elsewhere in this prospectus. You should read the entire prospectus carefully before making an investment decision, including "Risk Factors" and the consolidated financial statements and the related notes. References in this prospectus to "AtheroNova" and "the Company" refer to AtheroNova Inc. and our consolidated subsidiary AtheroNova Operations, Inc.

Our Business

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

In the near future, we plan to continue studies and trials to demonstrate the efficacy our IP. Ultimately, we plan to 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 to other such users. Our licensees may also produce, market or distribute products which utilize or add our compounds and technology in such treatment or prevention.

Our Industry

We compete against well-capitalized pharmacological companies as well as smaller companies. The market for our products is highly competitive. The pharmacological sector is evolving and growing rapidly, and companies are continually introducing new products and services.

Our History and Contact Information

We were incorporated in the State of Delaware on May 13, 1997 under the name Camryn Information Services, Inc. We operated for a brief period of time before we ceased operations on February 25, 1999 when we forfeited our charter for failure to designate a registered agent. We remained dormant until 2004 when we renewed our operations with the filing of a Certificate of Renewal and Revival of Charter with the State of Delaware on October 29, 2004. On November 3, 2004, we filed a Certificate of Amendment and our name was formally changed from Camryn Information Services, Inc. to iStorage Networks, Inc. Such change became effective on November 8, 2004. On January 26, 2006, we issued 41,000 shares of our common stock in exchange for all of the membership interests of Landbank, LLC ("LLC"). We changed our name to Landbank Group, Inc. on January 27, 2006. LLC made bulk acquisitions of parcels of land, primarily through the real property tax lien foreclosure process. The bulk acquisitions were then divided into smaller parcels for resale. On December 31, 2007, we transferred all of LLC's membership interests to Landbank Acquisition, LLC, ceased business operations, and changed our name to Trist Holdings, Inc. On May 13, 2010 we changed our name to AtheroNova Inc.

From December 31, 2007 through May 13, 2010, we were a public "shell" company with nominal assets.

On March 26, 2010, we entered into an Agreement and Plan of Merger ("Merger Agreement") with Z&Z Merger Corporation, a Delaware corporation and our wholly-owned subsidiary ("MergerCo"), and Z&Z Medical Holdings, Inc., a Delaware corporation ("Z&Z"). The closing (the "Closing") of the transactions contemplated by the Merger Agreement (the "Merger") occurred on May 13, 2010. At the Closing, (i) MergerCo was merged with and into Z&Z, whose name was concurrently changed to AtheroNova Operations, Inc. ("AtheroNova Operations"); (ii) Z&Z, as AtheroNova Operations, became our wholly-owned subsidiary; (iii) all of AtheroNova Operations' shares, warrants and options outstanding prior to the Merger were exchanged (or assumed, in the case of warrants and options) for comparable securities of our company; and (iv) approximately 98% of our fully-diluted shares (excluding the shares issuable in the Capital Raise Transaction (as defined below)) were owned by AtheroNova Operations' former stockholders, warrant holders and option holders. At the Closing, we issued to AtheroNova Operations' former stockholders, in exchange for the 9,837,050 shares of AtheroNova Operations' common stock outstanding prior to the Merger, 88,575,048 shares of our Super-Voting Common Stock, par value $0.0001 per share (the "Super-Voting Common Stock"), which, as a result of the approval by the holders a substantial majority of our outstanding stock entitled to vote and the approval by our board of directors on May 21, 2010, of amendments to our certificate of incorporation, as amended, that (i) decreased our 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, on June 23, 2010 converted into 22,143,771 shares of our common stock. As a result of the Merger we are solely engaged in AtheroNova Operations' business, AtheroNova Operations' officers became our officers and three of AtheroNova Operations' directors became members of our seven-member board of directors (which currently has two vacancies).

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. As such, the financial statements included herewith reflect the historical activity of AtheroNova Operations since its inception. All financial information in this document is that of our company and AtheroNova Operations.

On May 13, 2010, we also entered into a Securities Purchase Agreement (the "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) 2.5% Senior Secured Convertible Notes (the "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 1,908,798 shares of our common stock at an exercise price of approximately $0.39 per share (the "Warrants") (the "Capital Raise Transaction"). The Notes, including accrued interest through their maturity, are convertible into 4,199,358 shares of our common stock at a conversion price of approximately $0.39 per share. We are registering a portion of the shares of our common stock issuable upon the conversion of the Notes.

The address of our principal executive office is 2301 Dupont Drive, Suite 525, Irvine, California 92612, and our telephone number is (949) 476-1100.

The Offering

Common stock offered	1,805,825 shares by the selling stockholders
Common stock outstanding before this offering	22,687,553 shares
Common stock to be outstanding after this offering	22,687,553 shares
Use of proceeds	We will not receive any of the proceeds from the sale of shares of our common stock by the selling stockholders. See “Use of Proceeds.”
OTC Bulletin Board symbol	“AHRO”
Risk Factors	See “Risk Factors” beginning on page 4 for a discussion of factors that you should consider carefully before deciding to purchase our common stock.

In the table above, the number of shares to be outstanding after this offering is based on 22,687,553 shares of our common stock outstanding as of September 7, 2010. The number of shares of our common stock to be outstanding after this offering does not reflect the issuance of the following shares:

- 5,497,356 shares of our common stock issuable upon the exercise of common stock purchase warrants outstanding as of September 7, 2010, with a weighted average exercise price of approximately $0.28 per share;
- 2,099,498 shares of our common stock issuable upon the exercise of stock options outstanding as of September 7, 2010, with an exercise price of approximately $0.88 per share;
- 4,199,358 shares of our common stock (including 381,762 shares accounting for accrued interest through maturity) issuable upon the conversion of convertible promissory notes outstanding as of September 7, 2010, at a conversion price of approximately $0.39 and
- 2,812,964 additional shares of common stock reserved for issuance under our 2010 Stock Incentive Plan, as of September 7, 2010.

Summary Financial Data

As of June 30, 2010, we had an accumulated deficit of $3,484,750. We incurred operating losses of $986,284 and $4,270 for the fiscal quarters ended June 30, 2010 and 2009, respectively, and operating losses of $1,018,917 and $7,433 for the six month periods ended June 30, 2010 and 2009, respectively. We have not yet achieved profitability and anticipate that we will continue to incur net losses for at least the next year. We anticipate that a substantial portion of our capital resources and efforts will be focused on research and development and other general corporate purposes. Research and development projects include the completion of a second animal study at the Cedars-Sinai Division of Cardiology in conjunction with the University of California Los Angeles to validate our initial findings and prepare for human trials. We plan to develop multiple applications for our compounds, to be used in

pharmaceutical grade and over-the-counter grade products, for the treatment of atherosclerosis. As of June 30, 2010 we had approximately $900,353 in cash and cash equivalents and a working capital deficit of approximately $2,828,106 compared to approximately $39,063 in cash and cash equivalents and a working capital deficit of approximately $180,472 at June 30, 2009.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors and all other information contained in this prospectus before purchasing shares of our common stock. If any of the following risks occur, our business, financial condition and/or results of operations could be materially and adversely affected. In that case, the trading price of our common stock could decline, and you may lose some or all of your investment.

Risks Related to Our Business

We will continue to need additional financing to carry out our business plan.

The net proceeds from the Capital Raise Transaction available to fund our business were reduced by the required payments and reimbursements to stockholders to whom we were indebted and other transaction costs incurred by AtheroNova Operations. Although we estimate that the net funds from the Capital Raise Transaction will be sufficient to fund our planned activities for up to a year, we will need thereafter or sooner to obtain significant additional funding successfully to continue our business. Such additional funds may not be readily available or may not be available on terms acceptable to us.

We have a history of operating losses and there can be no assurance that we can achieve or maintain profitability.

We have a history of operating losses and may not achieve or sustain profitability. We cannot guarantee that we will become profitable. Even if we achieve profitability, given the competitive and evolving nature of the industry in which we operate, we may not be able to sustain or increase profitability and our failure to do so would adversely affect our business, including our ability to raise additional funds.

We may not be able to effectively manage our growth.

Our strategy envisions growing our business. We plan to expand our technology, sales, administrative and marketing organizations. Any growth in or expansion of our business is likely to continue to place a strain on our management and administrative resources, infrastructure and systems. As with other growing businesses, we expect that we will need to further refine and expand our business development capabilities, our systems and processes and our access to financing sources. We also will need to hire, train, supervise and manage new employees. These processes are time consuming and expensive, will increase management responsibilities and will divert management attention. We cannot assure you that we will be able to:

- expand our systems effectively or efficiently or in a timely manner;
- allocate our human resources optimally;
- meet our capital needs;
- identify and hire qualified employees or retain valued employees; or
- incorporate effectively the components of any business or product line that we may acquire in our effort to achieve growth.

Our inability or failure to manage our growth and expansion effectively could harm our business and materially and adversely affect our operating results and financial condition.

Technology changes may make the products we are planning to bring to market obsolete.

We believe that the methods for treating and preventing atherosclerosis of the pharmacological compounds we intend to bring to market enjoy certain competitive advantages, including superior performance and cost-effectiveness. Although we are not aware of any other treatments or methods currently being developed that would compete with the methods we intend to employ, there can be no assurance that future developments in technology or pharmacological compounds will not make our technology non-competitive or obsolete, or significantly reduce our operating margins or the demand for our offerings, or otherwise negatively impact our profitability.

We may not be able to protect our intellectual property.

We and our licensees may be unable to obtain IP rights to effectively protect our technology. Patents and other proprietary rights are an important part of our business plans. The ability to compete effectively may be affected by the nature and breadth of our IP rights. We intend to rely on a combination of patents, trade secrets and licensing arrangements to protect our technology. While we intend to defend against any threats to our IP rights, there can be no assurance that any of our patents, patent applications, trade secrets, licenses or other arrangements will adequately protect our interests.

Although we have pending patent applications in the United States and under the international Patent Cooperation Treaty covering uses of our technology, we have not received, and may never receive, any patent protection for our technology. We cannot guarantee any particular result or decision by the U.S. Patent and Trademark Office or a U.S. court of law, or by any patent office or court of any country in which we have sought patent protection. If we are unable to secure patent protection for our technology, our revenue and earnings, financial condition, or results of operations would be adversely affected. There can also be no assurance that any patent issued to or licensed by us in the future will not be challenged or circumvented by competitors, or that any patent issued to or licensed by us will be found to be valid or be sufficiently broad to protect us and our technology. A third party could also obtain a patent that may require us to negotiate a license to conduct our business, and there can be no assurance that the required license would be available on reasonable terms or at all.

We do not warrant any opinion as to patentability or validity of any pending patent application. We do not warrant any opinion as to non-infringement of any patent, trademark, or copyright by us or any of our affiliates, providers, or distributors. Nor do we warrant any opinion as to invalidity of any third-party patent or unpatentability of any third-party pending patent application.

We may also rely on nondisclosure and non-competition agreements to protect portions of our technology. There can be no assurance that these agreements will not be breached, that we will have adequate remedies for any breach, that third parties will not otherwise gain access to our trade secrets or proprietary knowledge, or that third parties will not independently develop the technology.

IP litigation would be costly and could adversely impact our business operations.

We may have to take legal action in the future to protect our technology or to assert our IP rights against others. Any legal action could be costly and time consuming to us, and no assurances can be made that any action will be successful. The invalidation of any patent or IP rights that we may own, or an unsuccessful outcome in lawsuits to protect our technology, could have a material adverse effect on our business, financial position, or results of operations.

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We operate and compete in an industry that is characterized by extensive IP litigation. In recent years, it has been common for companies in the medical product and pharmaceutical businesses to aggressively file patent-infringement and other intellectual-property litigation in order to prevent the marketing of new or improved medical products, treatments, or pharmaceuticals. IP litigation can be expensive, complex, and protracted. Because of such complexity, and the vagaries of the jury system, IP litigation may result in significant damage awards and/or injunctions that could prevent the manufacture, use, distribution, importation, exportation, and sale of products or require us and/or any of our licensing partners to pay significant royalties in order to continue to manufacture, use, distribute, import, export, or sell products. Furthermore, in the event that our right to license or to market our technology is successfully challenged, and if we and/or our licensing partners fail to obtain a required license or are unable to design around a patent held by a third party, our business, financial condition, or results of operations could be materially adversely affected. We believe that the patents we have applied for, if granted, would provide valuable protection for our intellectual property, but there nevertheless could be no assurances that they would be respected or not subject to infringement by others.

We are operating in a highly competitive industry.

We are involved in a highly competitive industry where we may compete with numerous other companies who offer alternative methods or approaches, who may have far greater resources, more experience, and personnel perhaps more qualified than we do. There can be no assurance that we will be able to successfully compete against these other entities.

We and our licensees will be subject to federal and state regulation.

We and our potential licensing partners are subject to many laws and regulations, and any adverse regulatory action may affect our ability to exploit our IP. Developing, manufacturing, and marketing regulated medical products and pharmaceuticals are subject to extensive and rigorous regulation by numerous government and regulatory agencies, including the FDA and comparable foreign agencies. Under the Federal Food, Drug, and Cosmetic Act (the “FDA Act”), regulated medical devices must receive FDA clearance and approval before they can be commercially marketed in the U.S. Markets outside the U.S. require similar clearance and approval before a medical product or pharmaceutical can be commercially marketed. We cannot guarantee that we will be able to obtain, directly or through our licensees, marketing clearance from the FDA and other governing agencies for any new products, or modifications or enhancements to existing products, which we depend on for royalty revenues. Furthermore, if FDA clearance is obtained, such clearance could (a) take a significant amount of time; (b) require the expenditure of substantial resources; (c) involve rigorous pre-clinical and clinical testing; (d) require modifications to, or replacements of products; and/or (e) result in limitations on the proposed uses of products.

Even after regulated medical products or pharmaceuticals have received marketing clearance, approvals by the FDA can be withdrawn due to failure to comply with regulatory standards or the occurrence of unforeseen issues following initial approval. Failure to comply with regulatory standards or subsequent discovery of unknown problems with a regulated medical product could result in fines, suspensions of regulatory approvals, seizures or recalls of devices, operating restrictions, and/or criminal prosecution. There can be no assurance that any FDA approval will not be subsequently withdrawn. Any adverse regulatory action by the FDA or another regulatory agency may restrict us and our licensees from effectively marketing and selling our IP applications in medical products. In addition, foreign laws and regulations have become more stringent and regulated medical products may become subject to increased regulation by foreign agencies in the future. Penalties for our licensees for any of their noncompliance with foreign governmental regulations could be severe, including revocation or suspension of their business licenses and criminal sanctions. Any foreign law or regulation imposed on our IP applications may materially affect our projected operations and revenues, by adverse impact on the distribution and sale of regulated medical products in foreign jurisdictions through our intended licensees.

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Our licensees may not sustain compliance with regulatory standards and laws applicable to medical products production, manufacturing, and quality processes.

Our licensees, which are manufacturers of medical products or pharmaceuticals, will be subject to periodic inspection by the FDA for compliance with regulations that require manufacturers to comply with certain practices and standards, including testing, quality control and documentation procedures. In addition, federal medical device reporting regulations require them to provide information to the FDA whenever there is evidence that reasonably suggests that a medical product may have caused or contributed to a death or serious injury or, if a malfunction were to occur, could cause or contribute to a death or serious injury. Compliance with these requirements is subject to continual review and is rigorously monitored through periodic FDA inspections. In foreign markets, our licensing partners are required to obtain certain certifications in order to sell medical products and must undergo periodic inspections by regulatory bodies to maintain these certifications. If our licensees fail to adhere to any laws and standards applicable to medical product manufacturers, the marketing of products could be suspended, and such failure could, for our licensees, lead to fines, withdrawal of regulatory clearances, product recalls, or other consequences, any of which could in turn adversely affect our projected business operations, financial condition, or results of operations. Our licensees will also be subject to certain environmental laws and regulations. Our licensing partners' manufacturing operations may involve the use of substances and materials regulated by various environmental protection agencies and regulatory bodies. We cannot guarantee that any licensee will sustain compliance with environmental laws, and that regulations will not have a material impact on our earnings, financial condition, or business operations.

Failure of our licensees to comply with laws and regulations relating to reimbursement of health care products may adversely impact our business operations.

Medical products are subject to regulation regarding quality and cost by the United States Department of Health and Human Services, Centers for Medicare & Medicaid services and comparable state and foreign agencies that are responsible for payment and reimbursement of healthcare goods and services. In the U.S., healthcare laws apply to our licensing partners' business operations when a reimbursement claim is submitted under a federal government funded healthcare program. Federal laws and regulations prohibit the filing of false or improper claims for federal payment and unlawful inducements for the referral of business reimbursable under federally-funded healthcare programs (known as the anti-kickback laws). If a governmental agency or regulatory body were to conclude that our licensees were not in compliance with applicable laws and regulations regarding payment or reimbursement of medical products, they could be subject to criminal and civil penalties, including exclusion from participation as a supplier of products to beneficiaries covered by government healthcare programs. Such exclusions could negatively affect our distribution channels, financial condition or results of operations.

Quality problems with a licensee's manufacturing processes could harm our reputation and affect demand for medical products using our technology.

Ensuring the quality of products and manufacturing processes is critical for medical product companies due to the high cost and seriousness of product failures or malfunctions. If any of our licensees failed to meet adequate quality standards, its and our reputations could be damaged and our revenues could decline. In addition, production of medical products which utilize our technology may depend on our licensees' abilities to engineer and manufacture precision components and assemble such components into intricate medical products and, if they fail to meet these requirements or fail to adapt to changing requirements, their and our reputations may suffer and demand for products implementing our technology could decline significantly.

Uncertainties regarding healthcare reimbursements may adversely affect our business.

Healthcare cost containment pressures decrease the prices end-users are willing to pay for medical products, which could have an adverse effect on our royalty revenue. Products that may implement our technology may be purchased by hospitals or physicians, which typically bill governmental programs, private insurance plans and managed care plans for the healthcare devices and services provided to their patients. The ability of these customers to obtain reimbursement from private and governmental third-party payors for the products and services they provide to patients is critical to commercial success. The availability of reimbursement affects which products customers purchase and the prices they are willing to pay. Reimbursement varies from country to country and can significantly impact the acceptance of new products and services. Although we and our licensees may have a promising new product, we and our licensees may find limited demand for the medical product unless reimbursement approval is obtained from private and governmental third-party payors. Even if reimbursement approval is obtained from private and governmental third-party payors, we may still find limited demand for the product for other reasons. In addition, legislative or administrative reforms to the U.S., or to international reimbursement systems, in a manner that significantly reduces reimbursement for products or procedures using our technology, or denial of coverage for those products or procedures, could have a material adverse effect on our business, financial condition or results of operations.

Major third-party payors for hospital services in the U.S. and abroad continue to work to contain healthcare costs. The introduction of cost containment incentives, combined with closer scrutiny of healthcare expenditures by both private health insurers and employers, has resulted in increased discounts and contractual adjustments to hospital charges for services performed and has shifted services between inpatient and outpatient settings. Initiatives to limit the increase of healthcare costs, including price regulation, are also ongoing in markets in which our licensees may do business. Hospitals or physicians may respond to these cost-containment pressures by insisting that our licensees lower prices, which may adversely affect our royalties.

In response to increasing healthcare costs, there has been and may continue to be proposals by legislators, regulators, and third-party payors to reduce these costs. If these proposals are approved and passed, limitations and/or reductions may be placed on the net or allowable price of products implementing our technology or the amounts of reimbursement available for these products from customers, governmental bodies, and third-party payors. These limitations and reductions on prices may have a material adverse effect on our financial position and results of operations.

We and our licensees will be required to attract and retain top quality talent to compete in the marketplace.

We believe our future growth and success will depend in part on our and our licensees' abilities to attract and retain highly skilled managerial, product development, sales and marketing, and finance personnel. There can be no assurance of success in attracting and retaining such personnel. Shortages in qualified personnel could limit our ability to increase sales of existing products and services and launch new product and service offerings.

Our forecasts are highly speculative in nature and we cannot predict results in a development stage company with a high degree of accuracy.

Any financial projections, especially those based on ventures with minimal operating history, are inherently subject to a high degree of uncertainty, and their ultimate achievement depends on the timing and occurrence of a complex series of future events, both internal and external to the enterprise. There can be no assurance that potential revenues or expenses we project will, in fact, be received or incurred.

Our auditors have expressed going concern opinions on our financial statements.

Primarily as a result of our recurring losses and lack of liquidity, the reports of the independent auditors to both our company and AtheroNova Operations regarding our respective audited financial statements at December 31, 2009 expressed substantial uncertainty as to our abilities to continue as going concerns.

We will be subject to evolving and expensive corporate governance regulations and requirements. Our failure to adequately adhere to these requirements or the failure or circumvention of our controls and procedures could seriously harm our business.

As a publicly traded company, we are subject to various federal, state and other rules and regulations, including applicable requirements of the Sarbanes-Oxley Act of 2002. Compliance with these evolving regulations is costly and requires a significant diversion of management time and attention, particularly with regard to our disclosure controls and procedures and our internal control over financial reporting. Our internal controls and procedures may not be able to prevent errors or fraud in the future. Faulty judgments, simple errors or mistakes, or the failure of our personnel to adhere to established controls and procedures, may make it difficult for us to ensure that the objectives of the control system are met. A failure of our controls and procedures to detect other than inconsequential errors or fraud could seriously harm our business and results of operations.

Our limited senior management team size may hamper our ability to effectively manage a publicly traded company while developing our products and harm our business.

Our management team has experience in the management of publicly traded companies and complying with federal securities laws, including compliance with recently adopted disclosure requirements on a timely basis. They realize it will take significant resources to meet these requirements while simultaneously working on licensing, developing and protecting our IP. Our management will be required to design and implement appropriate programs and policies in responding to increased legal, regulatory compliance and reporting requirements, and any failure to do so could lead to the imposition of fines and penalties and harm our business.

We may incur substantial liability associated with registration rights granted to investors in the Capital Raise Transaction.

Within 60 days following the closing of the Capital Raise Transaction, we are obligated to file with the Securities and Exchange Commission (“SEC”) a registration statement covering the resale by investors of the shares represented by the Notes and Warrants purchased in the Capital Raise Transaction. If we fail to timely file this registration statement or if the registration statement does not become effective within 180 days (or 150 days if the SEC does not fully review the registration statement) following the closing of the Capital Raise due to our failure to satisfy our obligations, we will be obligated to make certain payments as liquidated damages to the investors in the Capital Raise Transaction for each day that elapses after the closing of the Capital Raise Transaction before the registration statement is filed or becomes effective, as applicable. There can be no assurance that the registration statement will be declared effective by the SEC within 180 days following the closing of the Capital Raise Transaction. Similar penalties may apply if we

are unable to maintain the effectiveness of the registration statement.

The issuance of the Notes in the Capital Raise Transaction has subjected us to possible remedies of a secured creditor and has limited our financing alternatives.

Our obligations under the Notes will be debt obligations, secured by security interests in all of the assets of our company and its subsidiaries, including their intellectual property. If we default on our obligations under the Notes and related agreements, the Note holders will be entitled to all the remedies of secured creditors including (without limitation) the ability to accelerate the due date for the entire principal amount, charge default interest and penalties and foreclose on our assets.

Anti-dilution adjustments under the Notes and Warrants issued in the Capital Raise Transaction may dilute the interests of our stockholders.

If we are forced in the future to issue shares for prices less than the conversion price of the Notes, that may trigger anti-dilution adjustments that increase the numbers of shares that are issuable on conversions of the Notes or exercises of the Warrants issued in the Capital Raise Transaction. Such adjustments, particularly possible "ratchet" adjustments not weighted by the relative magnitude of the particular low-price share issuance, may significantly dilute the holdings of stockholders other than the investors in the Capital Raise Transaction.

Restrictions in the Notes and related documents will likely restrict our ability to raise debt funding or be acquired.

Restrictions and provisions in the Notes and related documents will restrict our ability to raise additional debt financing without the Note holders' consents. Also, financial penalties in the Notes and Warrants may make it difficult to us to be acquired by a third party.

Our Chief Executive Officer will not be devoting his full-time efforts to us in the next stages of operation. His departure could be an event of default under the Notes.

While it is believed that Thomas Gardner's services will be available to us, he currently has a non-exclusive contractual agreement to perform the services of CEO of PhyGen LLC, which designs, manufactures and sells instruments and implants for spine surgery. He is committed to fulfill such contractual obligations until January 1, 2011. To assist in this transitional stage, our Chief Financial Officer, Mark Selawski, became a full-time employee as of April 1, 2010. Mr. Selawski has over 15 years experience in the healthcare field and has had a previous working relationship with Mr. Gardner. To supplement this arrangement, we have secured office space adjacent to Mr. Gardner's current place of business in order to facilitate a proximal work environment for him and Mr. Selawski. We feel that the financial arrangements that we have made for Mr. Gardner, as well as our work toward a new employment agreement for him, should be sufficient to retain his services, but there are no assurances these arrangements will be effective and adequate at this stage in our development. If Mr. Gardner ceases to be an employee of our company (other than due to a termination without good cause), that will be an event of default under the Notes unless we obtain a reasonably acceptable full-time replacement for Mr. Gardner within 90 days after such termination.

Risks Related to our Common Stock

There is little current trading of our shares. Our stock price is likely to be highly volatile.

Although prices for our shares of common stock are quoted on the OTC Bulletin Board ("OTCBB"), there is little current trading and no assurance can be given that an active public trading market will develop or, if developed, that it will be sustained. The OTCBB is generally regarded as a less efficient and less prestigious trading market than other national markets. There is no assurance if or when our common stock will be quoted on another more prestigious exchange or market. The market price of our stock is likely to be highly volatile because for some time there will likely be a thin trading market for the stock, which causes trades of small blocks of stock to have a significant impact on the stock price.

Because our common stock is likely to be considered a "penny stock," our trading will be subject to regulatory restrictions.

Our common stock is currently, and in the near future will likely continue to be, considered a "penny stock." The SEC has adopted rules that regulate broker-dealer practices in connection with transactions in "penny stocks." Penny stocks generally are equity securities with a price of less than $5.00 (other than securities registered on certain national securities exchanges or quoted on the NASDAQ system, provided that current price and volume information with respect to transactions in such securities is provided by the exchange or system). The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from those rules, to deliver a standardized risk disclosure document prepared by the SEC, which specifies information about penny stocks and the nature and significance of risks of the penny stock market. The broker-dealer also must provide the customer with bid and offer quotations for the penny stock, the compensation of the broker-dealer and any salesperson in the transaction, and monthly account statements indicating the market value of each penny stock held in the customer's account. In addition, the penny stock rules require that, prior to a transaction in a penny stock not otherwise exempt from those rules, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction. These disclosure and other requirements may adversely affect the trading activity in the secondary market for our common stock.

Limited future sales of our common stock in the public market could make it difficult to generate significant liquidity in our stock.

As noted above, we will be obligated to file a registration statement with the SEC to cover resales of shares underlying the Notes and Warrants issued to the Purchasers. However, upon the effectiveness of this registration statement, most of the stock covered under the registration may not be immediately available for trading. Due to a limitation in the number of shares traded on a regular basis, there may be significant swings in the bid and ask prices of our stock or there may not be any significant volume of the stock available to trade.

We have not paid dividends in the past and do not expect to pay dividends for the foreseeable future, and any return on investment may be limited to potential future appreciation on the value of our common stock.

We currently intend to retain any future earnings to support the development and expansion of our business and do not anticipate paying cash dividends in the foreseeable future. Our payment of any future dividends will be at the discretion of our board of directors after taking into account various factors, including without limitation, our financial condition, operating results, cash needs, growth plans and the terms of any credit agreements that we may be a party to at the time. To the extent we do not pay dividends, our stock may be less valuable because a return on investment will only occur if and to the extent our stock price appreciates, which may never occur. In addition, investors must rely on sales of their common stock after price appreciation as the only way to realize their investment, and if the price of our

stock does not appreciate, then there will be no return on investment. Investors seeking cash dividends should not purchase our common stock.

Our officers, directors and principal stockholders can exert significant influence over us and may make decisions that are not in the best interests of all stockholders.

Our officers, directors and principal stockholders (greater than 5% stockholders) collectively own approximately 74% of our outstanding common stock, and approximately 58% of our fully-diluted common stock. As a result of such ownership and the Voting Agreement that is in place, these stockholders will be able to affect the outcome of, or exert significant influence over, all matters requiring stockholder approval, including the election and removal of directors and any change in control. In particular, this concentration of ownership of our common stock could have the effect of delaying or preventing a change of control of us or otherwise discouraging or preventing a potential acquirer from attempting to obtain control of us. This, in turn, could have a negative effect on the market price of our common stock. It could also prevent our stockholders from realizing a premium over the market prices for their shares of common stock. Moreover, the interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders, and accordingly, they could cause us to enter into transactions or agreements that we would not otherwise consider.

Anti-takeover provisions may limit the ability of another party to acquire us, which could cause our stock price to decline.

Our certificate of incorporation, as amended, our bylaws and Delaware law contain provisions that could discourage, delay or prevent a third party from acquiring us, even if doing so may be beneficial to our stockholders. In addition, these provisions could limit the price investors would be willing to pay in the future for shares of our common stock.

FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business,” contains “forward-looking statements” that include information relating to future events, future financial performance, strategies, expectations, competitive environment, regulation and availability of resources. These forward-looking statements include, without limitation: statements regarding proposed new services; statements concerning litigation or other matters; statements concerning projections, predictions, expectations, estimates or forecasts for our business, financial and operating results and future economic performance; statements of management’s goals and objectives; and other similar expressions concerning matters that are not historical facts. Words such as “may,” “will,” “should,” “could,” “would,” “predicts,” “potential,” “continue,” “expects” “anticipates,” “future,” “intends,” “plans,” “believes” and “estimates,” and similar expressions, as well as statements in future tense, identify forward-looking statements.

Forward-looking statements should not be read as a guarantee of future performance or results, and will not necessarily be accurate indications of the times at, or by which, that performance or those results will be achieved. Forward-looking statements are based on information available at the time they are made and/or management’s good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause these differences include, but are not limited to:

- our failure to implement our business plan within the time period we originally planned to accomplish; and

- other factors discussed under the headings “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.”

Forward-looking statements speak only as of the date they are made. You should not put undue reliance on any forward-looking statements. We assume no obligation to update forward-looking statements to reflect actual results, changes in assumptions or changes in other factors affecting forward-looking information, except to the extent required by applicable securities laws. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

USE OF PROCEEDS

We will not receive any proceeds from the sale of shares to be offered by the selling stockholders. The proceeds from the sale of each selling stockholder’s common stock will belong to that selling stockholder.

PLAN OF DISTRIBUTION

We are registering certain outstanding shares of our common stock and the shares of our common stock issuable upon conversion of the Notes (including shares of our common stock issuable upon conversion of accrued interest on the Notes) to permit the resale of these shares of our common stock by the holders of the outstanding shares and the Notes from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of our common stock. The Purchasers will bear all fees and expenses incident to our obligation to register the shares of our common stock.

The selling stockholders may sell all or a portion of the shares of our common stock beneficially owned by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of our common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent’s commissions. The shares of our common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;

- in the over-the-counter market;

- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- through the writing of options, whether such options are listed on an options exchange or otherwise;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales;
- sales pursuant to Rule 144;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

If the selling stockholders effect such transactions by selling shares of our common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of our common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of our common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of our common stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of our common stock short and deliver shares of our common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of our common stock to broker-dealers that in turn may sell such shares.

The selling stockholders may pledge or grant a security interest in some or all of the Notes or shares of our common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of our common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, as amended, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of our common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealer participating in the distribution of the shares of our common stock may be deemed to be "underwriters" within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of our common stock is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of shares of our common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or reallowed or paid to broker-dealers.

Under the securities laws of some states, the shares of our common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of our common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of our common stock registered pursuant to the registration statement, of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations thereunder, including, without limitation, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of our common stock by the selling stockholders and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of our common stock to engage in market-making activities with respect to the shares of our common stock. All of the foregoing may affect the marketability of the shares of our common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of our common stock.

The Purchasers will pay all expenses of the registration of the shares of our common stock estimated to be approximately $30,000 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or "blue sky" laws; provided, however, that a selling stockholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act, or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, or we may be entitled to contribution.

Once sold under the registration statement, of which this prospectus forms a part, the shares of our common stock will be freely tradable in the hands of persons other than our affiliates.

DESCRIPTION OF REGISTRANT'S SECURITIES

As of September 7, 2010, our authorized capital stock consisted of:

- 100,000,000 shares of common stock, par value $0.0001 per share; and
- 10,000,000 shares of preferred stock, par value $0.0001 per share.

As of September 7, 2010, there were outstanding:

- 22,687,553 shares of common stock held by approximately 20 stockholders of record;
- options to purchase 2,099,498 shares of common stock;
- warrants to purchase 5,497,396 shares of common stock;
- Notes convertible into 4,199,358 shares of common stock (including 381,762 shares accounting for accrued interest through maturity); and
- no shares of preferred stock.

Common Stock

Dividend Rights

Subject to preferences that may apply to shares of preferred stock outstanding at the time, the holders of outstanding shares of our common stock are entitled to receive dividends out of funds legally available at the times and in the amounts that our board of directors may determine.

Voting Rights

Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. Cumulative voting for the election of directors is not provided for in our certificate of incorporation, as amended, which means that the holders of a majority of the voting shares voted can elect all of the directors then standing for election.

No Preemptive or Similar Rights

Holders of our common stock do not have preemptive rights, and our common stock is not convertible or redeemable.

Right to Receive Liquidation Distributions

Upon our dissolution, liquidation or winding-up, the assets legally available for distribution to our stockholders are distributable ratably among the holders of our common stock, subject to the preferential rights and payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Authorized but Undesignated Preferred Stock

We are authorized, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series, to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations or restrictions. Our board of directors can also increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, by the affirmative vote of the holders of a majority of our capital stock entitled to vote, unless a vote of any other holders is required by our certificate of incorporation, as amended, or the Delaware General Corporation Law. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our company and may adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. We have no current plan to issue any shares of preferred stock.

Warrants, Options and Convertible Notes

At September 7, 2010, there were outstanding warrants exercisable to purchase shares of our common stock, as follows:

- 3,588,558 shares at an exercise price of approximately $0.22 per share, with expiration dates ranging from February 5, 2013 through March 15, 2015; and
- 1,908,798 shares at an exercise price of approximately $0.39 per share, which will expire on May 13, 2014.

At September 7, 2010, there were outstanding options exercisable to purchase shares of our common stock, as follows:

- 2,099,498 shares at an exercise price of approximately $0.88 per share, which will expire on dates ranging from January 7, 2017 through August 30, 2017.

At September 7, 2010, there were outstanding Notes convertible (including accrued interest through maturity) into shares of our common stock, as follows:

- 4,199,358 shares at a conversion price of approximately $0.39 per share, which will mature on May 13, 2014.

Anti-takeover Provisions

Certain provisions of our certificate of incorporation, as amended, and Delaware law may have the effect of delaying, deferring or discouraging another person from acquiring control of our company.

Charter and Bylaw Provisions

Our certificate of incorporation, as amended, allows our board of directors to issue 10,000,000 shares of preferred stock in one or more series and with such rights and preferences including voting rights, without further stockholder approval. In the event that our board of directors designates additional series of preferred stock with rights and preferences, including super-majority voting rights, and issues such preferred stock, the preferred stock could make our acquisition by means of a tender offer, a proxy contest or otherwise, more difficult, and could also make the removal of incumbent officers and directors more difficult. As a result, these provisions may have an anti-takeover effect. The preferred stock authorized in our certificate of incorporation, as amended, may inhibit changes of control that are not approved by our board of directors. These provisions could limit the price that future investors might be willing to pay for our common stock. This could have the effect of delaying, deferring or preventing a change in control. The issuance of preferred stock could also effectively limit or dilute the voting power of our stockholders. Accordingly, such provisions of our certificate of incorporation, as amended, may discourage or prevent an acquisition or disposition of our business that could otherwise be in the best interest of our stockholders.

Delaware Law

In addition, Delaware has enacted the following legislation that may deter or frustrate takeovers of Delaware corporations:

The Delaware General Corporation Law expressly permits our board of directors, when evaluating any proposed tender or exchange offer, any merger, consolidation or sale of substantially all of our assets, or any similar extraordinary transaction, to consider all relevant factors including, without limitation, the social, legal, and economic effects on the employees, customers, suppliers, and other constituencies of our company and its subsidiary, and on the communities and geographical areas in which they operate. Our board of directors may also consider the amount of consideration being offered in relation to the then current market price for our outstanding shares of common stock and our then current value in a freely negotiated transaction. Our board of directors believes such provisions are in our long-term best interests and the long-term best interests of our stockholders.

We are subject to the Delaware control share acquisitions statute. This statute is designed to afford stockholders of public corporations in Delaware protection against acquisitions in which a person, entity or group seeks to gain voting control. With enumerated exceptions, the statute provides that shares acquired within certain specific ranges will not possess voting rights in the election of directors unless the voting rights are approved by a majority vote of the public corporation’s disinterested stockholders. Disinterested shares are shares other than those owned by the acquiring person or by a member of a group with respect to a control share acquisition, or by any officer of the corporation or any employee of the corporation who is also a director. The specific acquisition ranges that trigger the statute are: acquisitions of shares possessing one-fifth or more but less than one-third of all voting power; acquisitions of shares possessing one-third or more but less than a majority of all voting power; or acquisitions of shares possessing a majority or more of all voting power. Under certain circumstances, the statute permits the acquiring person to call a special stockholders meeting for the purpose of considering the grant of voting rights to the holder of the control shares. The statute also enables a corporation to provide for the redemption of control shares with no voting rights under certain circumstances.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Routh Stock Transfer.

Listing

Our common stock is quoted on the OTCBB under the trading symbol “AHRO.” Prior to May 25, 2010, our common stock was quoted on the OTCBB under the trading symbol “TRHI.”

DESCRIPTION OF BUSINESS

Corporate History

We were incorporated in the State of Delaware on May 13, 1997 under the name Camryn Information Services, Inc. We operated for a brief period of time before we ceased operations on February 25, 1999 when we forfeited our charter for failure to designate a registered agent. We remained dormant until 2004 when we renewed our operations with the filing of a Certificate of Renewal and Revival of Charter with the State of Delaware on October 29, 2004. On November 3, 2004, we filed a Certificate of Amendment and our name was formally changed from Camryn Information Services, Inc. to iStorage Networks, Inc. Such change became effective on November 8, 2004. On January 26, 2006, we issued 41,000 shares of our common stock in exchange for all of the membership interests of Landbank, LLC. We changed our name to Landbank Group, Inc. on January 27, 2006. LLC made bulk acquisitions of parcels of land, primarily through the real property tax lien foreclosure process. The bulk acquisitions were then divided into smaller parcels for resale. On December 31, 2007, we transferred all of LLC's membership interests to Landbank Acquisition, LLC, ceased business operations, and changed our name to Trist Holdings, Inc. On May 13, 2010 we changed our name to AtheroNova Inc. From December 31, 2007 through May 13, 2010, we were a public "shell" company with nominal assets.

In December 2006, Z&Z Medical Holdings, Inc. ("Z&Z Nevada") was formed as a Nevada corporation with contributed intellectual property from Giorgio Zadini and Filiberto Zadini. During 2007, Z&Z Nevada sought various sources of working capital via an offering memorandum first prepared in November 2007, in which up to 1,500,000 shares were offered at $0.50 per share while it continued to perfect the patent applications previously filed. Concurrently, Z&Z Nevada was designing its clinical trial protocol and held discussions with various institutions about conducting a clinical animal study to test Z&Z Nevada's conclusions reached in unique in vitro experiments.

During 2008, Z&Z Nevada signed an agreement with the University of California, Los Angeles and Dr. Aldons "Jake" Lusis for the initial clinical study in vivo. The cost of the study was set at $200,000 for all work associated with the trial. A clinical protocol was established and the study spanned a period of 30 weeks, with the trial concluding in October, 2009. We expect the publication of the results of the study sometime in the 3rd quarter of 2010.

Also during 2008, Z&Z Nevada raised working capital of $225,000 from sales of securities pursuant to its offering memorandum from various private sources at $0.50 per share to start its operations, intellectual property work and clinical research.

During 2009, Z&Z Nevada continued its research and intellectual property work and raised an additional $100,000 from various private sources from sales of securities pursuant to its offering memorandum at $0.50 per share. From 2007 through 2009 Z&Z Nevada attempted to obtain larger amounts of working capital without success. Certain potential investors expressed dissatisfaction with Z&Z Nevada's status as a Nevada corporation. As a result Z&Z Nevada's board of directors chose to reincorporate in Delaware pursuant to a merger with and into AtheroNova Operations in 2010.

During late 2009 Z&Z Nevada was introduced to KOM Capital Management, LLC, a private equity fund based in New York City ("KOM"), and on November 4, 2009 Z&Z Nevada and KOM signed a Letter of Intent for the company to merge with a subsidiary of our company whereby a) the holders of Z&Z Nevada's securities would obtain approximately 98% of our outstanding shares and b) KOM would purchase $3,000,000 of our 2.5% Senior Secured Convertible Notes with an additional $3,000,000 purchasable if certain operating benchmarks were achieved in the ensuing 24 months, and would receive in connection therewith, warrants to purchase 100% of the shares of our common stock issuable upon conversion of such notes.

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In 2010, during the due diligence period, Z&Z Nevada raised additional working capital of $225,000 from the final sales of its securities pursuant to the offering memorandum at $0.50 per share.

Events within the capital markets and internal to KOM resulted in the amendment of the Letter of Intent with KOM to reduce the initial purchase of 2.5% Senior Secured Convertible Notes to $1,500,000 with 50% warrant coverage, with an additional $1,500,000 (without warrants) purchasable for up to 14 months following the initial purchase of such notes. As a result of subsequent negotiations, AtheroNova Operations consummated the Capital Raise Transaction with the Purchasers.

On March 26, 2010, we entered into the Merger Agreement with MergerCo and Z&Z. At the Closing, (i) MergerCo was merged with and into Z&Z, whose name was concurrently changed to AtheroNova Operations, Inc.; (ii) Z&Z, as AtheroNova Operations, become our wholly-owned subsidiary; (iii) all of AtheroNova Operations' shares, warrants and options outstanding prior to the Merger were exchanged (or assumed, in the case of warrants and options) for comparable securities of our company; and (iv) approximately 98% of our fully-diluted shares (excluding the shares issuable in the Capital Raise Transaction) were owned by AtheroNova Operations' former stockholders, warrant holders and option holders. As a result of the Merger we are solely engaged in AtheroNova Operations' business, AtheroNova Operations' officers became our officers and three of AtheroNova Operations' directors became members of our seven-member board of directors (which currently has two vacancies).

On May 13, 2010, we entered into the Securities Purchase Agreement with the Purchasers pursuant to which the Purchasers purchased the Notes for a cash purchase price of $1,500,000, and the Warrants to purchase up to 1,908,798 shares of our common stock at an exercise price of approximately $0.39 per share.

Under the Notes, we are obligated to repay to the Purchasers on May 12, 2014, the principal amount of $1,500,000. The Notes accrue interest at the rate of 2.5% per annum (which interest rate shall be increased to 12% from and for the continuation of an event of default) on the unpaid/unconverted principal balance, payable on the maturity date of the Notes. As the Notes provide that interest is payable on the maturity date, no cash interest will be paid on the Notes during the first year following the sale thereof.

At any time after May 13, 2011 and provided that (i) our common stock has been listed or quoted for trading on NYSE Amex, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (each a "Trading Market") for the immediately preceding 90 consecutive trading days, (ii) no default notice has been received by us from any such Trading Market during or with respect to such 90-day period, and (iii) the dollar volume weighted average price ("VWAP) of our common stock is equal to or greater than three times the conversion price (subject to appropriate and equitable adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions) for 20 out of 30 of the immediately preceding trading days, we may purchase the Notes by paying the Purchasers the Forced Conversion Amount. The "Forced Conversion Amount" means the sum of (i) the greater of (a) 200% of the then outstanding principal amount of the Notes, plus 100% of accrued and unpaid interest thereon, and (b) the outstanding principal amount of the Notes, plus all accrued and unpaid interest thereon, divided by the conversion price immediately prior to the closing of such transaction or the closing of the purchase contemplated under the prepayment provisions of the Notes, as the case may be, multiplied by the VWAP of our common stock on the last trading day prior to the closing of such transaction, and (ii) all other amounts, costs, expenses and liquidated damages due in respect of the Notes.

The Notes are convertible into shares of our common stock at the option of the Purchasers prior to their maturity at an initial conversion price of approximately $0.39 per share. We are required to have our transfer agent issue stock certificates to the Purchasers within three trading days of an optional conversion. Additionally, beginning May 13, 2011, if (i) our common stock has been listed or quoted for trading on a Trading Market for the immediately preceding 90 consecutive trading days, (ii) no default notice has been received by our company from any such Trading market during or with respect to such 90-day period, and (iii) the VWAP of our common stock is equal to or greater than three times the conversion price (subject to appropriate and equitable adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions) for 20 out of 30 of the immediately preceding trading days, the Notes shall automatically be converted into shares of the our common stock either (y) upon a date specified by the written consents of holders of at least 75% in principal amount of the then outstanding Notes, or (z) immediately prior to the closing of a transaction (1) approved by our board of directors, (2) paying to the Purchasers the Forced Conversion Amount, and (3) under which the consideration received for each outstanding share of our common stock is the same, whereby (A) we effect any merger or consolidation of our company with or into another person, (B) we effect any sale of all or substantially all of our assets in one or a series of related transactions, (C) any tender offer or exchange offer (whether by us or another person) is completed pursuant to which holders of our common stock are permitted to tender or exchange their shares for other securities, cash or property, or (D) we effect any reclassification of our common stock or any compulsory share exchange pursuant to which our common stock is effectively converted into or exchanged for other securities, cash or property. Notwithstanding the foregoing, each Note prohibits (until such time as the shares issuable under the Note and the Warrant, along with shares of our common stock held by the Purchaser, constitute 4.9% or less of our outstanding common stock, or the Purchaser elects to remove such restriction) the Purchaser from converting the Note if after such conversion the Purchaser would own more than 4.9% of our outstanding common stock.

The conversion price set forth in the Notes is fixed, however, the Notes include customary anti-dilution provisions. If we issue or sell, or are deemed to have issued or sold, any shares of our common stock (other than certain excluded issuances) for a consideration per share less than the per share conversion price in effect immediately prior to such issuance or sale, then concurrently with such issuance or sale the per share conversion price then in effect shall be reduced as follows: (i) with respect to the first $400,000 of gross proceeds received by us in such issuance, the conversion price then in effect shall be reduced to a price determined by multiplying such conversion price by a fraction, (x) the numerator of which shall be (A) the number of shares of our common stock and securities convertible into, or exercisable or exchangeable for, shares of our common stock (“Common Stock Equivalents”) issued and outstanding immediately prior to such issue or sale, plus (B) the number of shares of our common stock which the aggregate consideration received by us in such issuance for the total number of additional shares of our common stock or Common Stock Equivalents so issued would purchase at such conversion price, and (y) the denominator of which shall be the number of shares of our common stock and Common Stock Equivalents issued and outstanding immediately prior to such issue plus the total number of additional shares of our common stock or Common Stock Equivalents so issued; and (ii) after the first $400,000 of gross proceeds received by us in such issuance, the conversion price then in effect shall be reduced to the lowest issuance price per share of such newly issued or sold securities (but not less than $0.01).

Without the prior written consent of the holders of a majority in principal amount of the outstanding Notes, we are prohibited from entering into, creating, assuming or suffering to exist any indebtedness for borrowed money, including a guarantee, on or with respect to any of our properties or assets, entering into, creating, assuming or suffering to exist any liens on or with respect to any of our properties or assets, repurchasing shares of our common stock or Common Stock Equivalents other than as permitted under the Securities Purchase Agreement and the related Capital Raise Transaction documents, and repurchases of common stock or Common Stock Equivalents from departing employees up to an aggregate maximum of $150,000, paying cash dividends, entering into transactions with our affiliates that would be required to be disclosed in public filings with the SEC, unless such transaction is expressly approved by a majority of the disinterested directors on our board of directors, or entering into any agreement with respect to any of the foregoing. We are also prohibited from issuing rights, options or warrants to all holders of our

common stock (excluding the Purchasers) entitling them to subscribe for or purchase shares of our common stock at a price per share less than the VWAP of our common stock at the record date for the determination of stockholders entitled to receive such rights, options or warrants, or from distributing to all holders of our common stock (other than the Purchasers) evidences of our indebtedness or assets or rights or warrants to subscribe for or purchase any security other than our common stock.

The following constitute events of default under the Notes: our failure to pay any amount under the Notes when due; our failure to observe or perform any covenant or agreement in the Notes; the occurrence of an event of default under any of the Capital Raise Transaction documents or any other material agreement to which we are obligated; the occurrence of a bankruptcy event with respect to our company; our default on any of our obligations under any mortgage, indenture, factoring agreement or other instrument under which there may be issued, or by which there may be secured or evidenced, any indebtedness involving an obligation greater than $100,000 that results in the acceleration of the due date of such indebtedness; the cessation of the eligibility of our common stock for listing or quotation on a Trading Market or the OTCBB, where such listing or quotation cannot resume within 10 trading days; the cessation of the effectiveness of any documents pursuant to which the Purchasers obtained a security interest in our assets; the cessation of Thomas W. Gardner's service as our President and Chief Executive Officer other than in the event we find a replacement acceptable to the Purchasers upon Mr. Gardner's death, permanent disability, voluntary termination or termination by us for cause; our failure to deliver certificates to the Purchasers within 10 trading days after any conversion of the Notes; the rendering of a judgment against us in excess of $100,000; our breach of any representation or warranty under the Capital Raise Transaction documents; or our failure to timely file the reports required by the Exchange Act or the cessation of our obligation to file reports under Section 13 or 15(d) of the Exchange Act at any time after August 13, 2010.

Upon the occurrence of an event of default under the Notes, the outstanding principal amount of the Notes, plus accrued but unpaid interest, liquidated damages and other amounts owing in respect thereof through the date of acceleration, shall become, at the Purchasers' election (which the Purchasers shall not make more than 30 days after the later of the date (a) such event of default is cured or otherwise resolved and (b) the Purchasers are aware of such cure or resolution), immediately due and payable in cash at the sum of (i) 120% of the then outstanding principal amount of the Notes, (ii) plus 100% of accrued and unpaid interest thereon, and (iii) all other amounts, costs, expenses and liquidated damages due in respect of the Notes.

Upon the exercise of the Warrants, we are currently obligated to sell up to an aggregate of 1,908,798 shares of our common stock to the Purchasers at a per share exercise price of approximately $0.39. The Warrants have a term of 4 years and 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 the termination date the Warrants will be automatically exercised on a cashless basis. We are required to have our transfer agent issue stock certificates to the Purchasers within three trading days of a Warrant exercise.

Beginning May 13, 2011, if (i) our common stock has been listed or quoted for trading on a Trading Market for the immediately preceding 90 consecutive trading days, (ii) no default notice has been received by us from any such Trading market during or with respect to such 90-day period, and (iii) the VWAP of our common stock is equal to or greater than three times the exercise price (subject to appropriate and equitable adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions) for 20 out of 30 of the immediately preceding trading days, the Warrants shall automatically be exercised on a cashless basis for shares of our common stock immediately prior to the closing of a transaction (1) approved by our board of directors, (2) paying to the Purchasers the Forced Conversion Amount, and (3) under which the consideration received for each outstanding share of our common stock is the same, whereby (A) we effect any merger or consolidation of our company with or into another person, (B) we effect any sale of all or substantially all of our assets in one or a series of related transactions, (C) any tender offer or exchange offer (whether by us or another person) is completed pursuant to which holders of our common stock are permitted to tender or exchange their shares for other securities, cash or property, or (D) we effect any reclassification of our common stock or any compulsory share exchange pursuant to which our common stock is effectively converted into or exchanged for other securities, cash or property. Notwithstanding the foregoing, each Warrant prohibits (until such time as the shares issuable under the Note and the Warrant, along with shares of our common stock held by the Purchaser, constitute 4.9% or less of our outstanding common stock, or the Purchaser elects to remove such restriction) the Purchaser from exercising the Warrant if after such exercise the Purchaser would own more than 4.9% of our outstanding common stock.

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The exercise price set forth in the Warrants is fixed, however, the Warrants include customary anti-dilution provisions. If we issue or sell, or are deemed to have issued or sold, any shares of our common stock (other than certain excluded issuances) for a consideration per share less than the per share exercise price in effect immediately prior to such issuance or sale, then concurrently with such issuance or sale the per share exercise price then in effect shall be reduced as follows: (i) with respect to the first $400,000 of gross proceeds received by us in such issuance, the exercise price then in effect shall be reduced to a price determined by multiplying such exercise price by a fraction, (x) the numerator of which shall be (A) the number of shares of our common stock and Common Stock Equivalents issued and outstanding immediately prior to such issue or sale, plus (B) the number of shares of our common stock which the aggregate consideration received by us in such issuance for the total number of additional shares of our common stock or Common Stock Equivalents so issued would purchase at such exercise price, and (y) the denominator of which shall be the number of shares of our common stock and Common Stock Equivalents issued and outstanding immediately prior to such issue plus the total number of additional shares of our common stock or Common Stock Equivalents so issued; and (ii) after the first $400,000 of gross proceeds received by us in such issuance, the exercise price then in effect shall be reduced to the lowest issuance price per share of such newly issued or sold securities (but not less than $0.01).

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, including the failure of any representation or warranty in the Security Agreement to be true in any material respect when made, our failure to observe or perform its obligations under the Security Agreement for 5 business days after delivery of notice of such failure or if any material provision of the Security Agreement shall be declared invalid or unenforceable, 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.

On May 13, 2010 and in connection with the Capital Raise Transaction, we entered into a Registration Rights Agreement with the Purchasers (the “Registration Rights Agreement”) pursuant to which, among other things, we agreed to provide registration rights with respect to the shares of our common stock underlying the Notes and Warrants under the Act and applicable state securities laws. The Registration Rights Agreement provides that we must register for resale 130% of the sum of (i) the aggregate number of shares of our common stock issued or issuable upon conversion of the Notes as of the trading day immediately preceding the date the registration statement is initially filed with the SEC and (ii) the aggregate number of shares of our common stock issued or issuable upon exercise of the related Warrants as of the trading day immediately preceding the date the registration statement is initially filed with the SEC, or such other amount as may be required by the Staff pursuant to Rule 415.

The Registration Rights Agreement also provides that if (i) we did not file the registration statement on or before July 12, 2010, (ii) the registration statement is not declared effective on or prior to October 10, 2010, or (iii) after its effective date, the registration statement ceases to remain continuously effective and available to the Purchasers at any time prior to the date on which the Purchasers shall have sold all of the securities covered by such registration statement, subject to certain grace periods, then we must pay the Purchasers, as a result of any of the foregoing events and for each month thereafter that such event continues, an amount in cash as partial relief for damages equal to $15,000.

Under the Registration Rights Agreement, we are also required to indemnify the Purchasers and their affiliates against any losses, claims or damages incurred in investigating, preparing or defending any action, claim or proceeding, whether pending or threatened, to which any of them may become subject insofar as such claims arise out of or are based upon: (i) any untrue statement or alleged untrue statement of a material fact in a registration statement or any post-effective amendment thereto or in any filing made in connection with the qualification of the offering under the securities or other “blue sky” laws of any jurisdiction in which registrable securities are offered, or the omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus if used prior to the effective date of such registration statement, or contained in the final prospectus (as amended or supplemented, if we file any amendment thereof or supplement thereto with the SEC) or the omission or alleged omission to state therein any material fact necessary to make the statements made therein, in the light of the circumstances under which the statements therein were made, not misleading, (iii) any violation or alleged violation by us of federal securities laws, any other law, including, without limitation, any state securities law, or any rule or regulation thereunder relating to the offer or sale of the registrable securities pursuant to a registration statement or (iv) any violation of the Registration Rights Agreement. We are also required to file with the SEC in a timely manner all reports and other documents required under federal securities laws so long as we remain subject to such requirements and the filing of such reports and other documents is required for the applicable provisions of Rule 144 under the Act.

Each Purchaser agrees to indemnify us and our affiliates against any losses, claims or damages incurred in investigating, preparing or defending any action, claim or proceeding, whether pending or threatened, to which any of them may become subject insofar as such claims arise out of or are based upon: (i) any untrue statement or alleged untrue statement of a material fact in a registration statement or any post-effective amendment thereto or in any filing made in connection with the qualification of the offering under the securities or other “blue sky” laws of any jurisdiction in which registrable securities are offered, or the omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus if used prior to the effective date of such registration statement, or contained in the final prospectus (as amended or supplemented, if we file any amendment thereof or supplement thereto with the SEC) or the omission or alleged omission to state therein any material fact necessary to make the statements made therein, in the light of the circumstances under which the statements therein were made, not misleading, (iii) any violation or alleged violation by us of federal securities laws, any other law, including, without limitation, any state securities law, or any rule or regulation thereunder relating to the offer or sale of the registrable securities pursuant to a registration statement or (iv) any violation of the Registration Rights Agreement; but only to the extent, that such violation occurs in reliance upon and in conformity with written information furnished to us by such Purchaser expressly for use in connection with this registration statement.

Under the Securities Purchase Agreement, if we meet three specified operating benchmarks during the first twelve months after the closing of the first 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 12-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 original Notes.

We have the intention, and a reasonable basis to believe that we will have the financial ability, to make all payments on the Notes. The initial results of our initial study in vivo indicate that our pharmacological compounds and delivery systems have the potential to cause regression of existing atherosclerotic plaques from the body's arteries and from other tissues. Existing classes of atherosclerotic drugs, including statins, have demonstrated market success, achieving significant revenue without demonstrating any efficacy at reducing atherosclerotic plaques at commonly used dosage levels. Only one study (A Study to Evaluate the Effect of Rosuvastatin on Intravascular Ultrasound published March 13, 2006) demonstrated minimal efficacy at reducing plaque, and then only on patients taking the maximum approved dosage for two years. We are currently preparing to commence a second animal study to validate the efficacy findings of our initial study and prepare for upcoming human trials.

We currently plan to develop multiple applications for our compounds, and to generate revenue from the sale of such applications. We also plan to license our compounds, both domestically and internationally, to strategic partners and distributors, and to generate revenue from royalties paid by such strategic partners and distributors. We believe that existing market sectors (with their approximate annual cash flows) which may be subject to obviation or disruption by our compounds include Serum Screening ($3 Billion), Imaging ($12 Billion), Diagnostic Catheterizations ($12 Billion), Statin Drug Therapies ($10 Billion) and Drug Eluting Stents ($6 Billion). While we cannot currently accurately quantify anticipated revenues from the sale of our applications and licensing arrangements based on the fact that we are still in the development stage, given the initial efficacy results of our first in vivo study, and the size of existing market sectors which may be subject to obviation or disruption by our compounds, we reasonably believe that we will have the financial ability to make payments on the Notes once we begin to generate revenue.

In the event that we do not begin to generate revenue prior to the maturity date of the Notes, we will seek alternative funding to pay our obligations under the Notes.

The total dollar value of the securities underlying the Notes that we have registered for resale is $26,382,060. This value is based on 1,319,103 shares of our common stock registered for resale in connection with the Notes multiplied by $20.00, the closing per share price of our common stock as quoted on the OTCBB as of May 13, 2010, the date on which the Notes were sold.

As of September 7, 2010, the total dollar value of the securities underlying the Notes that we have registered for resale is $2,638,206. This value is based on 1,319,103 shares of our common stock registered for resale in connection with the Notes multiplied by $2.00, the closing per share price of our common stock as quoted on the OTCBB as of September 7, 2010. This represents a $23,743,854 decrease in the total dollar value of the securities underlying the Notes.

We issued the Notes to the selling stockholders with a per share conversion price (approximately $0.39) having a discount of approximately $19.61 to the closing per share price ($20.00) of our common stock on the OTCBB as of May 13, 2010, the date on which the Notes were sold. As of the date the Notes were sold, the selling stockholders would have realized a profit of approximately $74,851,920 as a result of the conversion price discount for the shares of our common stock underlying the Notes.

Based on the closing price per share of our common stock on the OTCBB as of September 7, 2010 ($2.00), the discount of the conversion price to the closing price per share on September 7, 2010 is approximately $1.61 per share. As of September 7, 2010, the selling stockholders would realize a profit of approximately $6,135,192 as a result of the conversion price discount for the shares of our common stock underlying the Notes. This represents a $68,716,728 decrease in the approximate total profit the selling stockholders would have realized in connection with the sale of the shares of our common stock underlying the Notes.

The table below sets forth the calculation of the aforementioned potential profits as of May 13, 2010, the date on which the Notes were sold, and as of September 7, 2010.

Date	Market Price Per Share	Conversion Price Per Share	Total Possible Shares Underlying Notes	Combined Market Price of Total Possible Shares Underlying Notes	Combined Conversion Price of Total Possible Shares Underlying Notes	Total Possible Discount to Market Price
5/13/10	$20.00	$0.39	3,817,596	$76,351,920	$1,500,000	$74,851,920
9/7/10	$2.00	$0.39	3,817,596	$7,635,192	$1,500,000	$6,135,192

Although the anti-dilution provisions (described above) included in the Notes could result in a change in the per share conversion price of the Notes upon the issuance or sale of shares of our common stock or Common Stock Equivalents for a consideration per share below the then applicable per share conversion price, the new conversion price is not determinable until the date we actually issue such securities (if ever).

Except for Warrants issued to the selling stockholders in connection with the Capital Raise Transaction, the selling stockholders do not own any other convertible securities issued by us. We issued the Warrants to the selling stockholders with an exercise price (approximately $0.39) having a discount of approximately $19.61 to the closing per share price ($20.00) of our common stock on the OTCBB as of May 13, 2010, the date on which the Warrants were issued. Consequently, as of the date on which the Warrants were issued, the selling stockholders would have realized a profit of approximately $37,425,960 as a result of the exercise price discount for the shares of our common stock underlying the Warrants.

Based on the closing price per share of our common stock on the OTCBB as of September 7, 2010 ($2.00), the discount to the conversion price over the closing price per share on September 7, 2010 is approximately $1.61 per share. As of September 7, 2010, the selling stockholders would realize a profit of approximately $3,067,165 as a result of the conversion price discount for the shares of our common stock underlying the Warrants. This represents a $34,358,364 decrease in the approximate total profit the selling stockholders would have realized in connection with the sale of the shares of our common stock underlying the Warrants.

The table below sets forth the calculation of the aforementioned potential profits as of May 13, 2010, the date on which the Warrants were sold, and as of September 7, 2010.

Date	Market Price Per Share	Exercise Price Per Share	Total Possible Shares Underlying Warrants	Combined Market Price of Total Possible Shares Underlying Warrants	Combined Exercise Price of Total Possible Shares Underlying Warrants	Total Possible Discount to Market Price
5/13/10	$20.00	$0.39	1,908,798	$38,175,960	$750,000	$37,425,960
9/7/10	$2.00	$0.39	1,908,798	$3,817,596	$750,000	$3,067,596

Although the anti-dilution provisions (described above) included in the Warrants could result in a change in the per share exercise price of the Warrants upon the issuance or sale of shares of our common stock or Common Stock Equivalents for a consideration per share below the then applicable per share exercise price, the new exercise price is not determinable until the date we actually issue such securities (if ever).

While the per share conversion price at which the selling stockholders will purchase the common stock underlying the Notes upon conversion represents a significant discount to the market price of our common stock on May 13, 2010, the date the Notes were sold, m arket prices for public shall companies, like us prior to the Merger, are highly volatile, can have material increases and decreases based on immaterial share trades, and often do not take into account any rational business determination or valuation as to fair market value per share. As identified in the Risk Factors section above, the market price of our common stock is likely to be highly volatile because, for some time, there will likely be a thin trading market for our common stock, which causes trades of small blocks of stock to have a significant impact on the market price of our common stock. This is demonstrated by our historical price and trading activity. We believe that the total dollar values of the securities underlying the Notes that we have registered for resale, the total dollar values of the securities underlying the Warrants, and the potential profits resulting from discounts to the market price of the securities underlying the Notes that we have registered for resale, and the Warrants, as disclosed above, reflect the volatility that results from trades of small blocks of our common stock.

Based on information obtained from the selling stockholders, in the ordinary course of trading securities positions the selling stockholders may enter into short sales. However, no such short sales were entered into prior to the public announcement of any private placement pursuant to which the applicable securities were acquired by the selling stockholders and the selling stockholders are aware of and adhere to the position of the Staff of the SEC set forth in Item A.65 of the SEC’s Telephone Interpretations Manual.

The following table presents gross proceeds from the Capital Raise Transaction, all payments made to the selling stockholders, their related parties, and other parties from the gross proceeds raised in the Capital Raise Transaction, and the total possible profit resulting from conversion/exercise price discounts regarding securities underlying the Notes and the Warrants based on the market prices on May 13, 2010, the date of the sale and issuance of the Notes and the Warrants, and as of September 7, 2010, respectively:

Gross Proceeds	$1,500,000.00
Less Payments to Selling Stockholders:	
W-Net Fund I, L.P. (1)	$125,000.00
Europa International, Inc. (2)	$125,000.00
	$1,250,000.00
Less Payments to Selling Stockholders Contractually Related Party:	
Selling Stockholder Legal Counsel (3)	$71,503.50
	$1,178,496.50
Less Payments to Other Parties:	
Company Corporate Legal Counsel (4)	$41,474.75
Company Intellectual Property Legal Counsel (5)	$5,500.00
Company Independent Accounting Firm (6)	$9,000.00
Company Consultant Fees (7)	$52,187.50
Company Corporate Fees (8)	$2,094.00
Net Proceeds	$1,067,967.25
Total Possible Profit Resulting from Conversion/Exercise Price Discounts Regarding Securities Underlying Notes and Warrants (Based on a Market Price of $20.00)	$112,277,880.00
Total Possible Profit Resulting from Conversion/Exercise Price Discounts Regarding Securities Underlying Notes and Warrants (Based on a Market Price of $2.00)	$9,202,788.00

(1) We repaid $125,000 of outstanding indebtedness owed to W-Net and issued 45,083 shares of our common stock in consideration of the cancellation of $270,492 of indebtedness owed to W-Net.

(2) We repaid $125,000 of outstanding indebtedness owed to Europa and issued 45,083 shares of our common stock in consideration of the cancellation of $270,492 of indebtedness owed to Europa.

(3) We paid this fee to legal counsel to the selling stockholders in lieu of reimbursing W-Net for expenses required to be advanced pursuant to the Securities Purchase Agreement and the Merger Agreement. The selling stockholders had no relationship to their legal counsel other than pursuant to an engagement to render professional legal services.

(4) We paid this fee in connection with corporate legal services rendered to us prior to the Capital Raise Transaction.

(5) We paid this fee in connection with intellectual property legal services rendered to us prior to the Capital Raise Transaction.

(6) We paid this fee in connection with accounting services rendered to us prior to the Capital Raise Transaction.
(7) We paid this fee in connection with consulting services with respect to, among other things, the provision of executive services, rendered to us prior to the Capital Raise Transaction.
(8) We paid this fee in connection with corporate and securities filing services rendered to us prior to the Capital Raise Transaction.

Based on a market price on May 13, 2010 of $20.00, the total of all possible payments as disclosed in response to comment three ($432,032.75) plus the total amount of all possible discounts to the market price of the shares underlying the Notes (approximately $74,851,920), represents approximately 7,049% of the Net Proceeds ($1,067,967.25) calculated above, with an average over the four-year term of the Notes of approximately 1,762.25%.

Based on a market price on September 7, 2010 of $2.00, the total of all possible payments as disclosed in response to comment three ($432,032.75) plus the total amount of all possible discounts to the market price of the shares underlying the Notes (approximately $6,135,192), represents approximately 615% of the Net Proceeds ($1,067,967.25) calculated above, with an average over the four-year term of the Notes of approximately 154%.

The following table presents the total possible payments to be made to the selling stockholders and any of their affiliates under the Notes in the first year following the sale of the Notes:

Net Proceeds	$1,067,967.25
Less Maximum First Year Payments	
W-Net Fund I, L.P.	$0.00
Europa International, Inc.	$0.00
MKM Opportunity Master Fund, Ltd.	$0.00
Net Proceeds Less Maximum First Year Payments	$1,067,967.25

Business of AtheroNova Inc.

General Overview

Immediately prior to the Closing, we were a public “shell” company with nominal assets. As a result of the Merger, we are solely engaged in AtheroNova Operations’ business. With respect to this discussion, the terms “we,” “us,” “our” and “our company” refer to AtheroNova Inc., a Delaware corporation and its wholly-owned subsidiary AtheroNova Operations, Inc., a Delaware corporation.

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 various cardiovascular diseases. Atherosclerosis occurs when cholesterol or fats are deposited and harden as plaques in the walls of arteries. This hardening reduces the space within the arteries through which blood can flow. The plaque can also rupture and greatly restrict or block altogether blood flow. Through a process called delipidization, such compounds dissolve the plaques so they can be eliminated through normal body processes and avoid such rupturing. Such compounds may be used both to treat and prevent atherosclerosis.

In the near future, we plan to continue studies and trials to demonstrate the efficacy our IP. Ultimately, we plan to 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 to other such users. Our licensees may also produce, market or distribute products which utilize or add our compounds and technology in such treatment or prevention.

Atherosclerosis

Atherosclerosis (from the Greek words “athero” (gruel or paste) and “sclerosis” (hardness)) is a common disease of the arteries. It occurs when organic materials, primarily cholesterol (the waxy, fat-like material found in all parts of the body) or fats, are deposited and harden in the walls of arteries. This may occur when such materials accumulate under a fibrotic cap or at a tear in the inner lining of an artery.

As the deposits harden, they can restrict and occlude the area through which the blood can flow through an artery, thereby reducing the amount of blood made available to organs and other parts of the body. Restricted blood flow in the arteries, such as to the heart muscle, can lead to symptoms such as chest pain. It also can cause tissues to receive inadequate oxygen, which is directly related to a number of circulatory disorders. For example, arteriosclerosis of the extremities is a disease of the peripheral blood vessels that is characterized by narrowing and hardening of the arteries that supply the arms, legs and feet. The narrowing of the arteries causes a decrease or cessation in blood flow. Symptoms include pain, numbness, cold tissues and hypoxia resulting in cellular death.

Hardened plaques can also rupture and dislodge from an artery’s walls, and then greatly restrict or block altogether blood flow through that or other arteries. This can lead to heart attacks and other severe disorders. For example, strokes can be caused when ruptured plaques in a neck artery impede the flow of blood to parts of the brain and decrease brain functions.

Cardiovascular disease is the leading cause of morbidity, disability and mortality in industrialized countries, and atherosclerosis is its main underlying pathology.

Our Technology

Our company has developed technology, covered by our patent applications, which uses certain pharmacological compounds for the treatment of atherosclerosis. Through a process called delipidization, such compounds dissolve plaques in artery walls so they are removed through normal body processes. The compounds go through the atherosclerotic fibrous cap and, through delipidization, cause rapid reduction in the size of the deposits of soft vulnerable plaque in an artery's walls. We also believe that the artery walls, once delipidized, will undergo a marked reduction in inflammation and ultimately undergo a significant restoration of their integrity. The compounds can be used to reverse the effects of existing atherosclerosis by widening the area in an artery through which the blood flows and avoiding the rupturing and dislodging of chunks of the hardened plaque. The compounds can also be used to prevent significant plaque buildups in arteries from occurring.

Our intellectual property for treating atherosclerosis began with the ideas and research of our two largest stockholders, Dr. Giorgio Zadini and Dr. Filiberto Zadini, who assigned their related IP rights to Z&Z Medical Holdings, Inc., a Nevada corporation and AtheroNova Operations' predecessor ("Z&Z Nevada"), in December 2006. That IP was supplemented by subsequent research and unique in vitro (nonliving) experiments which demonstrated that our chosen compounds, through delipidization, cause substantial rapid regression of artherosclerotic plaques. Such demonstration was the confirmation of a long process of critical reasoning and evaluation of the properties of various compounds suspected to be effective on the basis of a thorough medical literature search. Indeed, there is much clinical evidence accumulated to date in the world medical literature that supports our clinical premise. Our research experiments are unique in the sense that we have found no record in medical literature of equivalent experiments demonstrating substantial regression of atherosclerotic plaques in vitro being achieved, let alone utilizing a virtually non-toxic compound or class of compounds such as is used in our technology.

The compounds used in our technology have a history of approval for use in humans by regulatory government agencies in a large number of developed countries throughout the world, including Germany, England, France, and Italy, and have been used in humans throughout the world, including in the USA, for their medical indications. The existing human safety record for this class of compounds, at higher concentrations than we required in our initial research, is well established for uses other than those which we have claimed in our IP. Use of the compounds in such other medical configurations, though approved, is limited to non-competing clinical applications that cannot be diverted or used off-label for the uses covered by our patent applications.

Our objective is to conduct animal and clinical trials of our technology at leading academic research centers under the supervision of recognized researchers and clinicians. We are currently in the final stages of documenting the results of our first laboratory study of our atherosclerosis technology, a proof-of-concept animal study performed at the University of California at Los Angeles ("UCLA") in its Atherosclerosis Research Laboratory. We feel that the results are significant in demonstrating the positive effects recognized in our prior research and experiments. We shortly plan to commence two progressive laboratory studies of the technology at Cedars-Sinai Medical Center in Los Angeles, California and in cooperation with UCLA. These studies are expected to cost approximately $400,000 and take 6-8 months to complete, and an additional 3–4 months to determine the final results.

Over time, we have approached a number of well known physician/scientist atherosclerosis researchers regarding our ideas for treating atherosclerosis and our technology. We entered into non-disclosure agreements with them and their institutions. Several of these researchers have joined our Medical Advisory Board.

As noted above, the delipidization properties of our chosen pharmacological compounds have been demonstrated in various scientific papers. But we have filed several applications seeking patents in the United States and under the international Patent Cooperation Treaty for our uses of such compounds to cause delipidization of atherosclerotic plaques based on those being "Novel Uses." Those applications include known existing delivery methods for such uses of the compounds as well as several novel delivery methods. Our applications also extend to potential new synthesized derivatives of any of such pharmacological compounds. Our phytochemical (substances appearing naturally in plants) patent applications apply to, cover and protect "novel use" of an entire class of phytochemical compounds and new combinations of phytochemical preparations, as well as the delivery methods included and covered in our IP.

To protect our IP, we have entered into, and will enter into, confidentiality agreements with persons to whom we disclose confidential aspects of our technology who are not required by law to protect such confidentiality. We further have obtained, and will obtain, covenants from persons involved in the development of our technology, not only to maintain its confidentiality, but also to assign or license related IP rights to us.

Other Possible Medical Applications

Besides applications in atherosclerosis, delipidization has significant applications in other medical fields. The delipidization of subcutaneous fat has been scientifically demonstrated by researchers at a leading U.S. academic institution, and was achieved utilizing one of the compounds determined by us to be an effective delipidizing compound. This has possibly significant implications for use in the field of clinical cosmesis, for which we have developed certain IP for delipidization application to unwanted subcutaneous fat through transdermal delivery.

There are other promising potential areas of application for our IP that merit further exploration and testing. We believe that systemic application of our delipidizing pharmacological compounds may have beneficial effects in the treatment of obesity and some of the disorders associated with obesity such as hypertension, diabetes, etc. We also believe that cleansing the lipid buildup from the small peripheral vessels in the body via delipidization will have beneficial effects on overall human physiology and well-being.

Business Plan

As noted above, cardiovascular disease is the leading cause of morbidity, disability and mortality in industrialized countries, and atherosclerosis is its main underlying pathology. Atherosclerosis-related disease occurs in all age and socio-economic groups, with approximate equivalent distribution between the sexes, but with higher rates of prevalence and severity in minority populations. Treatments available to date have only barely slowed the growth rate of this disease. We believe our technology has the potential to significantly reduce the incidence and severity of atherosclerosis and that there is a vast potential market for its applications.

We plan to exploit our IP primarily by entering into various licenses with strategically selected licensees throughout the world. Such licensees may use our compounds and technology in treating or preventing atherosclerosis and other medical conditions or sublicense the IP to other such users. Such compounds are expected to be suitable for various delivery methods including parenteral, oral, transdermal and in-loco (through intra-arterial catherization). Our licensees may also produce, market or distribute products which utilize or add our compounds and technology in such treatment or prevention. Also, we anticipate that some of our licensees may couple our pharmacological compounds within their current commercial offerings to extend their patent lives with existing statin therapeutics or in-loco drug cluting technologies. We believe that, through such licensing, we can achieve significant revenues while maintaining modest staffing and infrastructure.

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Many clinical uses by licensees of our technology will require regulatory approvals that will require further animal or clinical trials. However, uses by our licensees in less regulated over-the-counter markets, such as in phytochemical or neutraceutical products, may commence sooner.

The ultimate target audience for applications of our technology will include both prescribing physicians and other health providers and patient consumers. Such consumers will include patients who have symptoms of atherosclerosis as well as persons who do not have such symptoms but have high risk profiles to develop atherosclerosis. Such consumers may be key potential influencers and advocates for uses of our technology.

Competition

The global medical industry presently, through many large and small health care providers and other vendors of goods and services, generates substantial cash flows directly related to the treatment of symptomatic atherosclerotic disease. The clinical applications of our IP are expected to be a novel class of pharmacological compounds for treating and preventing atherosclerosis, suitable for parenteral, oral, transdermal and in-loco methods of delivery. The therapeutic applications of our IP within such a variety of clinical modalities are likely to be both synergistic and disruptive to the types of clinical care presently applied within the atherosclerosis-related markets. The technology or service companies involved in such markets may be diminished, substantially disrupted, and in some cases obviated by our technology. We anticipate that the most heavily affected companies may be prime targets for the licensing of our IP.

Existing markets sectors, with their approximate annual cash flows, which may be subject to obviation or disruption by our technology include Serum Screening ($3 Billion), Imaging ($12 Billion), Diagnostic Catheterizations ($12 Billion), Statin Drug Therapies ($10 Billion) and Drug Eluting Stents ($6 Billion). In addition, incalculable investment dollars are applied to emerging therapeutic technologies for cardiovascular diseases.

Employees

As of September 7, 2010, we had 2 full-time employees and no part-time employees. Since inception, we have never had a work stoppage, and our employees are not represented by a labor union. We consider our relationship with our employees to be positive.

Government Regulation

Pharmaceutical companies are subject to extensive regulation by national, state and local agencies in the countries in which they do business. Of particular importance is the Food and Drug Administration (“FDA”) in the U.S. The FDA has jurisdiction over the pharmaceutical business and administers requirements covering the testing, safety, effectiveness, manufacturing, labeling, marketing, advertising, and post-marketing surveillance of pharmaceutical products. In addition, we or our licensees may be subject to the jurisdiction of various other federal regulatory and enforcement departments and agencies, such as the Department of Health and Human Services, the Federal Trade Commission and the Department of Justice. Individual states, acting through their attorneys general, have become active as well, seeking to regulate the marketing of prescription drugs under state consumer protection and false advertising laws. The FDA and other governing regulatory bodies could enact new regulations or take actions which are against the industry or our IP applications in the medical and pharmaceutical industries, or otherwise adversely affect our licensees or our business.

DESCRIPTION OF PROPERTY

Our principal executive offices are located at 2301 Dupont Drive, Suite 525, Irvine, California 92612. As of May 1, 2010, AtheroNova Operations entered into a-month-to-month sublease of approximately 1,200 square feet of office space at that address, for which AtheroNova Operations will pay approximately $2,100 per month. The sublease is between AtheroNova Operations and PhyGen LLC, an unrelated medical device company for which Mr. Thomas W. Gardner, our Chief Executive Officer, also serves as Chief Executive Officer. Our telephone number is (949) 476-1100.

LEGAL PROCEEDINGS

We are not currently party to any legal proceedings, the adverse outcome of which, in management's opinion, individually or in the aggregate, would have a material adverse effect on our results of operations or financial position.

MARKET PRICE OF AND DIVIDENDS ON THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Common Stock

Our common stock is quoted on the OTC Bulletin Board under the symbol "AHRO." The following table sets forth, for the periods indicated, the high and low bid information for our common stock, as determined from sporadic quotations on the OTCBB. The information has been adjusted to reflect a 1-for-200 reverse stock split of our common stock which took effect on June 23, 2010, after the periods presented. The following quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

	High	Low
Year Ended December 31, 2008		
First Quarter	$14.00	$6.00
Second Quarter	$10.00	$6.00
Third Quarter	$10.00	$6.00
Fourth Quarter	$ 6.00	$4.00
Year Ended December 31, 2009		
First Quarter	$ 4.00	$4.00
Second Quarter	$ 4.00	$4.00
Third Quarter	$10.00	$4.00
Fourth Quarter	$30.00	$4.00
Year Ended December 31, 2010		
First Quarter	$ 8.00	$4.00
	$70.00	$4.00

On September 7, 2010, the closing sales price of our common stock as reported on the OTCBB was $2.00 per share. As of September 7, 2010, there were approximately 44 record holders of our common stock.

Dividends

We have never paid dividends on our common stock. We intend to retain our future earnings to re-invest in our ongoing business.

Equity Compensation Plan Information

We had no options outstanding as of December 31, 2009.

2010 Stock Incentive Plan

Our 2010 Stock Incentive Plan (the "Plan") was adopted and became effective on May 21, 2010. A total of 4,362,964 shares of our common stock are reserved for issuance upon exercise of awards granted under the Plan. Any shares of our common stock subject to an award, which for any reason expires or terminates unexercised, are again available for issuance under the Plan.

The Plan will terminate as to grants of awards after 10 years from the effective date, unless it is terminated earlier by our board of directors. The Plan authorizes the award of stock options, stock purchase grants, stock appreciation rights and stock units.

General; Types of Awards

The Plan provides for the grant of options to purchase shares of common stock, restricted stock, stock appreciation rights ("SARs") and restricted stock units (rights to receive, in cash or stock, the market value of one share of our commons stock). Incentive stock options ("ISOs") may be granted only to employees. Nonstatutory stock options and other stock-based awards may be granted to officers, employees, non-employee directors and consultants.

Administration

The Plan will be administered by our board of directors or a committee of our board of directors (the "Administrator"), as provided in the Plan. The Administrator will have the authority to select the eligible participants to whom awards will be granted, to determine the types of awards and the number of shares covered and to set the terms, conditions and provisions of such awards, to cancel or suspend awards under certain conditions, and to accelerate the exercisability of awards. The Administrator will be authorized to interpret the Plan, to establish, amend, and rescind any rules and regulations relating to the Plan, to determine the terms of agreements entered into with recipients under the Plan, and to make all other determinations that may be necessary or advisable for the administration of the Plan. Our board of directors may at its discretion delegate the responsibility for administering the Plan to any committee of the board of directors.

Eligibility

Options and other awards may be granted under the Plan to directors, officers, employees and consultants of our company and any of our subsidiaries, provided that the services of such consultants are not in connection with the offer or sale of securities in a capital-raising transaction and do not directly or indirectly promote or maintain a market for our securities. At the date of this prospectus, all of our officers, directors, employees and consultants would have been eligible to receive awards under the Plan.

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Stock Option and SAR Grants

The exercise price per share of our common stock purchasable upon exercise of any stock option or SAR will be determined by the Administrator, but cannot in any event be less than 100% of the fair market value of our common stock on the date the option is granted. The Administrator will determine the term of each stock option or SAR (subject to a maximum term of 10 years) and each option or SAR will be exercisable pursuant to a vesting schedule determined by the Administrator. The grants and the terms of ISOs will be restricted to the extent required for qualification as ISOs by the U.S. Internal Revenue Code of 1986, as amended. Subject to approval of the Administrator, options or SARs may be exercised by payment of the exercise price in cash, shares of common stock or pursuant to a "cashless exercise" through a broker-dealer under an arrangement approved by the Administrator. The Administrator may require the grantee to pay to us any applicable withholding taxes that we are required to withhold with respect to the grant or exercise of any option. The withholding tax may be paid in cash or, subject to applicable law, the Administrator may permit the grantee to satisfy these obligations by the withholding or delivery of shares of our common stock. We may withhold from any shares of our common stock that may be issued pursuant to an option or from any cash amounts otherwise due from us to the recipient of the option an amount equal to such taxes.

Restricted Stock Grants

Restricted shares may be sold or awarded for consideration determined by the Administrator, including cash, full-recourse promissory notes, as well as past and future services. Any award of restricted shares will be subject to a vesting schedule determined by the Administrator. Any restricted shares that are not vested will be subject to rights of repurchase, rights of first refusal or other restrictions as determined by the Administrator. In general, holders of restricted shares will have the same voting, dividend and other rights as our other stockholders.

Adjustments

In the event of any change affecting shares of our common stock by reason of any stock dividend or split, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distribution to stockholders other than cash dividends, the Administrator will make substitutions or adjustments in the aggregate number of shares that may be distributed under the Plan, and in the number and types of shares subject to, and the exercise prices under, outstanding awards granted under the Plan, in accordance with Section 10 and other provisions of the Plan.

Transferability

Unless otherwise permitted by the Plan and approved by the Administrator as permitted by the Plan, no award will be assignable or otherwise transferable by the grantee other than by will or the laws of descent and distribution and, during the grantee's lifetime, an award may be exercised only by the grantee.

Amendment and Termination

Our board of directors may amend the Plan in any and all respects without stockholder approval, except as such stockholder approval may be required under applicable law or pursuant to the listing requirements of any national market system or securities exchange on which our equity securities may be listed or quoted, and except that stockholder approval shall be required for any amendment that would: (a) increase the maximum number of shares for which awards may be granted under the Plan; (b) reduce the price at which stock options or SARs may be granted; (c) extend the term of the Plan; or (d) change the class of persons eligible to be participants.

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Unless sooner terminated by our board of directors, the Plan will terminate as to further grants of awards on May 20, 2020.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This discussion summarizes the significant factors affecting the operating results, financial condition and liquidity and cash flows of AtheroNova Operations for the fiscal years ended December 31, 2009 and 2008 and three and six months ended June 30, 2010 and 2009. The discussion and analysis that follows should be read together with the financial statements of AtheroNova Operations and the notes to the financial statements included elsewhere in this prospectus. 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.

Overview

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

In December 2006, Z&Z Medical Holdings, Inc. was formed as a Nevada corporation with the contributed intellectual property from Giorgio Zadini and Filiberto Zadini. During 2007, Z&Z Nevada sought various sources of working capital via an offering memorandum first prepared in November 2007, in which up to 1,500,000 shares were offered at $0.50 per share while it continued to perfect the patent applications previously filed. Concurrently, Z&Z Nevada was designing its clinical trial protocol and held discussions with various institutions about conducting a clinical animal study to test Z&Z Nevada's conclusions reached in unique in vitro experiments.

During 2008, Z&Z Nevada signed an agreement with the University of California, Los Angeles and Dr. Aldons "Jake" Lusis for the initial clinical study in vivo. The cost of the study was set at $200,000 for all work associated with the trial. A clinical protocol was established and the study spanned a period of 30 weeks, with the trial concluding in October, 2009. We expect the publication of the results of the study sometime in the 3rd quarter of 2010.

Also during 2008, Z&Z Nevada raised working capital of $225,000 from sales of securities pursuant to its offering memorandum from various private sources at $0.50 per share to start its operations, intellectual property work and clinical research.

During 2009, Z&Z Nevada continued its research and intellectual property work and raised an additional $100,000 from various private sources from sales of securities pursuant to its offering memorandum at $0.50 per share. From 2007 through 2009 Z&Z Nevada attempted to obtain larger amounts of working capital without success. Certain potential investors expressed dissatisfaction with Z&Z Nevada's status as a Nevada corporation. As a result Z&Z Nevada's board of directors chose to reincorporate in Delaware pursuant to a merger with and into AtheroNova Operations in 2010.

During late 2009 Z&Z Nevada was introduced to KOM Capital Management, LLC, a private equity fund based in New York City ("KOM"), and on November 4, 2009 Z&Z Nevada and KOM signed a Letter of Intent for the company to merge with a subsidiary of our company whereby a) the holders of Z&Z Nevada's securities would obtain approximately 98% of our outstanding shares and b) KOM would purchase $3,000,000 of our 2.5% Senior Secured Convertible Notes with an additional $3,000,000 purchasable if certain operating benchmarks were achieved in the ensuing 24 months, and would receive in connection therewith, warrants to purchase 100% of the shares of our common stock issuable upon conversion of such notes.

In 2010, during the due diligence period, Z&Z Nevada raised additional working capital of $225,000 from the final sales of its securities pursuant to the offering memorandum at $0.50 per share.

Events within the capital markets and internal to KOM resulted in the amendment of the Letter of Intent with KOM to reduce the initial purchase of 2.5% Senior Secured Convertible Notes to $1,500,000 with 50% warrant coverage, with an additional $1,500,000 (without warrants) purchasable for up to 14 months following the initial purchase of such notes. As a result of subsequent negotiations, AtheroNova Operations consummated the Capital Raise Transaction with the Purchasers.

General

Operating expenses consist primarily of payroll and related costs and corporate infrastructure costs. We expect that our operating expenses will increase as we finalize clinical testing and continue executing 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.

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

Year Ended December 31, 2009 Compared with Year Ended December 31, 2008

Revenue

AtheroNova Operations did not recognize any revenue for the years ended December 31, 2009 and 2008, respectively.

Cost of Sales

AtheroNova Operations did not recognize any revenue for the years ended December 31, 2009 and 2008, therefore, did not record any cost of sales in those years, respectively.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were $12,453 and $175,182 for the years ended December 31, 2009 and 2008, respectively. The decrease in selling, general and administrative expenses was due to a large progress payment made in 2008 upon the signing of the clinical trial contract and reversal of operating expenses in 2009 due to the forgoing of expense debentures originally recorded in 2008.

Interest Income, Net

Interest income declined to $130 in 2009 compared to $1,560 in 2008 due to a decline in cash held in an interest earning saving account.

Going Concern Uncertainties

As of the date of AtheroNova Operations' annual report, there is doubt regarding our ability to continue as a going concern as we have not generated sufficient cash flow to fund our business operations and loan commitments. Our future success and viability, therefore, are dependent upon our ability to generate capital financing. The failure to generate sufficient revenues or raise additional capital may have a material and adverse effect upon AtheroNova Operations and our stockholders.

Three Months Ended June 30, 2010 Compared with Three Months Ended June 30, 2009

	Quarters ended June 30, 2010	2009	Increase (decrease)
Costs and expenses:			
Research and development:			
Share-based compensation	$ -	$ -	$ -
Other research and development expenses	50,450	-	50,450
Total research and development expenses	50,450	-	50,450
General and administrative:			
Share-based compensation	826,935	-	826,935
Other general and administrative expenses	108,899	4,270	104,629
Total general and administrative expenses	935,834	4,270	931,564
Fair value accounting	2,042,348	--	2,042,348
Other (income) expense	36,587	(18)	36,605
Net loss	$ 3,065,219	$ 4,252	$ 3,060,967

During the three month periods ended June 30, 2010 and 2009, 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 quarter ended June 30, 2010 research and development expense was $50,450 compared to $0 for the quarter ended June 30, 2009. This increase of $50,450, or 100%, is primarily due to payment of the completion costs of the

initial contract laboratory research performed for us in the current year compared to no progress payments incurred during the 2009 period.

General and administrative costs increased to $935,834 in the second quarter of 2010 compared to $4,270 for the quarter ended June 30, 2009, or an increase of $931,564 due to the legal and accounting costs associated with the reverse merger completed in 2010. In addition, we also incurred expenses for stock-based compensation to one of our directors and a consultant for $826,935 and the compensation costs of senior management in the current year, while no salaries were paid or accrued in the 2009 period.

For the quarter ended June 30, 2010 fair value accounting was $2,042,348 compared to $0 for the same period in the prior year due to the issuance of Notes and warrants which must be valued using the current market price of our common stock (see Note 7 to the accompanying quarterly financial statements).

For the quarter ended June 30, 2010 other (income) expense was $36,587 compared to $(18) for the quarter ended June 30, 2009. This change of $36,605 is primarily due to interest expense and discount amortization incurred on the Notes from the date of sale, May 13, 2010, through the end of the quarter, whereas we had no comparable debt in the three months ended June 30, 2009.

Net loss for the quarter ended June 30, 2010 was $3,065,219 compared to $4,252 for the quarter ended June 30, 2009 due to the costs associated with completing the reverse merger and the fair value accounting for securities issued in the debt placement, increase in contract research and compensation in cash and in equity for employees, directors and consultants as we started our first significant increase in operations to continue our research and development and meet our obligations as a reporting company.

Six Months Ended June 30, 2010 Compared with Six Months Ended June 30, 2009

	Six months ended June 30,		Increase
	2010	2009	(decrease)
Costs and expenses:			
Research and development:			
Share-based compensation	$ -	$ -	$ -
Other research and development expenses	110,450	-	110,450
Total research and development expenses	110,450	-	110,450
General and administrative:			
Share-based compensation	829,435	-	829,435
Other general and administrative expenses	79,032	7,433	71,599
Total general and administrative expenses	908,467	7,433	901,034
Fair value accounting	2,042,348	-	2,042,348
Other (income) expense	37,540	(126)	37,666
Net loss	$ 3,098,805	$ 7,307	$ 3,091,498

During the six month periods ended June 30, 2010 and 2009, 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.

Research and development costs increased to $110,450 in the six months ended June 30, 2010 compared to $0 on the same period in the prior year as we completed the initial contract laboratory research this year while there was no corresponding progress payments made in the six month period ended June 30, 2009.

For the six months ended June 30, 2010, general and administrative costs increased to $908,467 compared to $7,433 for the six months ended June 30, 2009. This increase of $901,034 is primarily due to cost associated with the reverse merger in 2010 and the stock-based compensation of $829,435 to our employees, a director and a consultant, whereas no comparable expenses were incurred in the same period of the prior year.

For the six months ended June 30, 2010, fair value accounting was $2,042,348 compared to $0 for the comparable period of 2009 due to recording of market price valuation assigned to Notes and Warrants issued by us on May 13, 2010. (See Note 7 to the accompanying quarterly financial statements).

For the six months ended June 30, 2010 other (income) expense was $37,540 compared to $(126) for the six months ended June 30, 2009. This increase of $37,666 is primarily due to interest expense and discount amortization incurred on the Notes from the date of sale, May 13, 2010, through the end of the six months, whereas we had no comparable debt in the six months ended June 30, 2009.

Net loss for the six months ended June 30, 2010 was $3,098,805 compared to $7,307 for the six months ended June 30, 2009 due to the costs associated with completing the reverse merger and fair value accounting for securities issued in the debt placement, increase in contract research and compensation in cash and in equity for employees, directors and consultants as we started our first significant increase in operations to continue our research and development and meet our obligations as a reporting company.

Liquidity and Capital Resources

From inception to June 30, 2010, we incurred a deficit during the development stage of $3,484,750 primarily as a result of our fair value accounting of debt and warrant issues and net losses, and 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 reverse merger and the costs related to public reporting supporting all of these activities.

We have financed our operations since inception primarily through equity and debt financings. During the quarter ended June 30, 2010, we had a net increase in cash and cash equivalents of $777,000. This increase resulted largely from net cash provided by financing activities of $1.4 million partially offset by net cash used in operating activities of $743,000. Total liquid resources as of June 30, 2010 were $900,000 compared to $28,000 at December 31, 2009.

As of June 30, 2010, we had a working capital deficit of $2,828,106 compared to a working capital deficit of $383,812 at December 31, 2009.

For the six months ended June 30, 2010 we received proceeds of $225,000 from private equity placements in January and March 2010, which occurred prior to the reverse merger. In May 2010, we received net proceeds of $1,394,000 from the sale of the Notes.

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.

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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 June 30, 2010, 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 the similar sources of capital 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.

Based on our resources available at June 30, 2010, management believes that we have sufficient capital to fund our operations through the second quarter of 2011. Management believes that we will need additional equity or debt financing, or generate revenues through licensing of our products or entering into strategic alliances to be able to sustain our operations into 2011. 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 net losses of $3,098,805 and $7,000 for the six month periods ended June 30, 2010 and 2009, respectively. The net loss attributable to common shares from date of inception, December 13, 2006 to June 30, 2010, amounts to $3,484,750. Management believes that we will continue to incur net losses through at least June 30, 2011.

Off-Balance Sheet Arrangements

We currently do not have any off-balance sheet arrangements or financing activities with special purpose entities.

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.

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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.

Intangible and Long-Lived Assets

In accordance with ASC 350-30 (formerly SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets), we evaluate long-lived assets for impairment whenever events or changes in circumstances indicate that their net book value may not be recoverable. When such factors and circumstances exist, we compare the projected undiscounted future cash flows associated with the related asset or group of assets over their estimated useful lives against their respective carrying amount. Impairment, if any, is based on the excess of the carrying amount over the fair value, based on market value when available, or discounted expected cash flows, of those assets and is recorded in the period in which the determination is made. Our management currently believes there is no impairment of our long-lived assets. There can be no assurance, however, that market conditions will not change or demand for our products under development will continue. Either of these could result in future impairment of long-lived asset.

Share-Based Compensation

We have a stockholder-approved stock incentive plan for employees, directors, officers and consultants. Prior to January 1, 2006, we accounted for the employee, director and officer plans using the intrinsic value method. Effective January 1, 2006, we adopted the share-based payment method for employee options using the modified prospective transition method. This new method of accounting for stock options eliminated the option to use the intrinsic value method and required us to expense the fair value of all employee options over the vesting period. Under the modified prospective transition method, we recognized compensation cost which includes a) period compensation cost related to share-based payments granted prior to, but not yet vested, as of January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions; and b) period compensation cost related to share-based payments granted on or after January 1, 2006, based on the grant date fair value estimated in accordance with the new accounting methodology. In accordance with the modified prospective method, we have not restated prior period results.

Recent Accounting Pronouncements

Note 2 to the accompanying quarterly financial statements sets forth certain accounting pronouncements that are applicable to our financial statements.

DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS

Executive Officers and Directors

The following table sets forth the names, positions and ages of our current executive officers and directors. All directors serve until the next annual meeting of stockholders or until their successors are elected and qualified. Officers are appointed by the board of directors and their terms of office are, except to the extent governed by an employment contract, at the discretion of the board of directors.

Name	Age	Position
Thomas W. Gardner (1)	56	Chief Executive Officer, President and Director
Mark Selawski (1)	54	Chief Financial Officer and Secretary
Filiberto Zadini, MD (1)	65	Director
Boris Ratiner, MD (1)	42	Director
Chaim Davis (1)	30	Director
Gary Freeman (2)	42	Director

(1) These persons were appointed to their respective positions effective May 13, 2010.

(2) Mr. Freeman continued as one of our directors following the Closing.

Thomas W. Gardner, 56, has been the Chief Executive Officer, the President and a director of AtheroNova Operations since its formation in December 2009. He held the same positions with Z&Z Medical Holdings, Inc., a Nevada corporation and the predecessor in interest to AtheroNova Operations ("Z&Z Nevada") from December 2006 until its merger into AtheroNova Operations in March 2010. Since September 2008, he also has been the President of PhyGen LLC, which designs, manufactures and sells instruments and implants for spine surgery. He is a senior medical industry executive with twenty-six years experience in healthcare. He has extensive hands-on experience with successful start-up ventures, having helped found six healthcare companies, three of them that were publicly traded. He has served as President/CEO of Urogen, a San Diego-based Biotech company, President of Endocare, an Orange County-based urologic products company, President/CEO of AutoCath, an Orange County based vascular access company, and Executive Vice President of Medstone International, an Orange County medical products company.

Mark Selawski, 54, joined AtheroNova Operations and Z&Z Nevada in January 2010 as Chief Financial Officer. He became the Secretary of AtheroNova Operations in March 2010. From 2004 to 2009 he served as Chief Financial Officer of United Polychem, Inc., a privately held petrochemical distribution company. From 1988 to 2004, he held several positions at Medstone International, during the last 9 years being the Vice President-Finance, Chief Financial Officer and Corporate Secretary. Medstone was a NASDAQ-listed capital medical device manufacturer dedicated to urology products. Before joining Medstone, he held various financial positions with a number of manufacturing and high-tech companies in southern California. He holds a Bachelor of Science in Accounting from Bowling Green State University.

Filiberto Zadini, MD, 65, has been a director of AtheroNova Operations since December 2009. He was a director and V.P. of Research & Development for Z&Z Nevada from December 2006 until March 2010. He is one of the co-inventors of the core technologies of AtheroNova Operations. He had a past training in Neurosurgery in Italy and is currently in private general medicine practice in the San Fernando Valley in southern California.

Boris Ratiner, MD, 42, has been a director of AtheroNova Operations since December 2009. He was a director of Z&Z Nevada from December 2006 until March 2010. He received an Advanced Bachelors degree in Chemistry at Occidental College in Los Angeles. He then attended Medical School at LSU in New Orleans, followed by an Internal Medicine Residency and Rheumatology Fellowship at the University of California San Francisco (UCSF). He is Board Certified in Internal Medicine and Rheumatology and is in private practice in Tarzana, California. He is the medical director and founder of Rheumatology Therapeutics, where he leads a team of 23 staff members that care for patients with Arthritis and Autoimmune Diseases. He also serves on the board of the San Fernando Valley Branch of the Arthritis Foundation and is the Program Director for the Southern CA Rheumatism Society. He is a founder and active board member of 4Medica, a successful medical informatics company that he co-founded in 1999. He is also a Clinical Instructor of Medicine at the David Geffen School of Medicine at the University of California Los Angeles (UCLA), a teaching attendant with the Cedars-Sinai's Division of Rheumatology and an instructor at the Northridge Family Medicine Teaching Program. He is an active clinical investigator and is actively involved in trials of new medications for gout, lupus, rheumatoid arthritis, osteoarthritis, psoriatic arthritis, ankylosing spondylitis and fibromyalgia. He is published in peer-reviewed papers, abstracts and textbooks. He is a frequent speaker at local hospitals to physicians on Rheumatology related diseases. He has authored several book chapters on osteoarthritis and research papers on Hepatitis C arthritis.

Chaim Davis, 30, will serve as a director appointee of the Purchasers under the terms and conditions of the Voting Agreement entered into in connection with the Merger. He is currently the Managing Partner of Revach Fund L.P., an investment fund focused on life science industries. He is also currently serving as a healthcare industry consultant to KOM (from November 2009) and to Gem Asset Management (from February 2007). He served as an Account Executive at Perry Davis & Associates from June 2004 through February 2007, and as a Healthcare Analyst at The Garnet Group from April 2001 through June 2004. He received his bachelor's degree from Columbia University.

Gary Freeman, 42, has served as one of our directors since July 2007. He will serve as a director appointee of the Purchasers under the terms and conditions of the Voting Agreement entered into in connection with the Merger. He is currently a Partner in Beach, Freeman, Lim & Cleland's Audit and Accounting services division. In conjunction with various consulting engagements, he has assumed interim senior level management roles at numerous public and private companies during his career, including Co-President and Chief Financial Officer of Trestle Holdings, Inc., Chief Financial Officer of Silvergraph International and Chief Financial Officer of Galorath Incorporated. He served as a member of the Board of Directors of Blue Holdings, Inc., Trestle Holdings, Inc. and GVI Security Solutions, Inc. His previous experience includes ten years with BDO Seidman, LLP, including two years as an Audit Partner.

On May 13, 2010, Filiberto Zadini, Giorgio Zadini, Thomas W. Gardner, Boris Ratiner, W-Net, Europa and MKM entered into the Voting Agreement pursuant to which such parties became obligated, for four years, to vote for the directors determined as described below. The authorized number of directors will be seven. Those initially include three persons who before the Closing were members of AtheroNova Operations' board of directors—Thomas W. Gardner, Boris Ratiner and Filiberto Zadini—whose replacements will be determined under the terms of the Voting Agreement by the holders of a majority of the shares held by the Z&Z Shareholders (Filiberto Zadini, Giorgio Zadini, Boris Ratiner and Thomas W. Gardner). Two other directors will be Gary Freeman, who is presently a member of our board of directors, and Chaim Davis, and their replacements will be determined under the Voting Agreement by the holders of a majority of the shares held by the Purchasers. The final two directors, and their replacements, will be determined jointly by the holders of a majority of the shares held by the Z&Z Shareholders and the holders of a majority of the shares held by the Purchasers.

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None of the newly appointed officers or directors, nor any of their affiliates, beneficially owned any of our equity securities or rights to acquire any of our securities prior to the Closing, and no such persons have been involved in any transaction with us or any of our directors, executive officers or affiliates that is required to be disclosed pursuant to the rules and regulations of the SEC, other than with respect to the transactions that have been described herein. None of the newly appointed officers and directors have been convicted in a criminal proceeding, excluding traffic violations or similar misdemeanors, nor have they been a party to any judicial or administrative proceeding during the past ten years, except for matters that were dismissed without sanction or settlement, that resulted in a judgment, decree or final order enjoining the person from future violations of, or prohibiting activities subject to, federal or state securities laws, or a finding of any violation of federal or state securities laws.

Director Independence

Our Audit Committee currently consists of Messrs. Davis and Freeman. Our Audit Committee is responsible for selecting and engaging our independent accountant, establishing procedures for the confidential, anonymous submission by our employees of, and receipt, retention and treatment of concerns regarding accounting, internal controls and auditing matters, reviewing the scope of the audit to be conducted by our independent public accountants, and periodically meeting with our independent public accountants and our chief financial officer to review matters relating to our financial statements, our accounting principles and our system of internal accounting controls. Our Audit Committee reports its recommendations as to the approval of our financial statements to our board of directors. The role and responsibilities of our Audit Committee are more fully set forth in an amended and restated written charter adopted by our board of directors on June 17, 2010. Our Audit Committee reviews and reassesses the Audit Committee Charter annually and recommends any changes to our board of directors for approval. We are not a "listed company" under SEC rules and are therefore not required to have an audit committee comprised of independent directors. We have, however, determined that Messrs. Davis and Freeman are "independent" as that term is defined in Section 5605 of the Marketplace Rules as required by the NASDAQ Stock Market.

Our Compensation Committee currently consists of Messrs. Davis and Freeman. Generally, our Compensation Committee is responsible for considering and making recommendations to our board of directors regarding executive compensation and for administering the Plan. The role and responsibilities of our Compensation Committee are more fully set forth in a written charter adopted by our board of directors on June 17, 2010. Our Compensation Committee reviews and reassesses the Compensation Committee Charter annually and recommends any changes to our board of directors for approval. We are not a "listed company" under SEC rules and are therefore not required to have a compensation committee comprised of independent directors. We have, however, determined that Messrs. Davis and Freeman are "independent" as that term is defined in Section 5605 of the Marketplace Rules as required by the NASDAQ Stock Market.

We do not have a nominating committee or nominating committee charter for persons to be proposed as directors for election to our board of directors. The duties and functions performed by such committee are performed by the full board of directors. We do not have any restrictions on stockholder nominations under our certificate of incorporation, as amended, or bylaws. The only restrictions are those applicable generally under the Delaware General Corporation Law and the federal proxy rules. Currently, our entire board of directors decides on nominees, on the recommendation of one or more members of our board of directors. We are not a "listed company" under SEC rules and are therefore not required to have a nominating committee comprised of independent directors. We have, however, determined that Messrs. Davis and Freeman are "independent" as that term is defined in Section 5605 of the Marketplace Rules as required by the NASDAQ Stock Market.

EXECUTIVE COMPENSATION

Summary Compensation Table

The following table and related footnotes show the compensation paid during the fiscal years ended December 31, 2009 and 2008, to our named executive officers. No other executive officers received salary and bonus in excess of $100,000 for the prior two fiscal years.

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)	All Other Compensation ($)	Total ($)
Eric Stoppenhagen (1)	2009	$ 48,000	--	--	--	$ 48,000
Interim President & Secretary	2008	$ 48,000	--	--	--	$ 48,000

(1) Mr. Stoppenhagen served as our Interim President & Secretary from September 2007 through May 13, 2010. Represents consulting fees paid to Mr. Stoppenhagen's company, Venor Consulting, Inc.

On September 27, 2007, we entered into a Consulting Agreement with Venor Consulting, Inc. ("Venor"), a company owned by Mr. Stoppenhagen. Under the terms of the Consulting Agreement, Venor performed certain consulting services for us with respect to, among other things, the provision of executive services (including, without limitation, the services of Mr. Stoppenhagen) for a period of nine months. We paid Venor a monthly fee for certain of the services to be provided, with additional services to be billed at an hourly rate. We terminated this agreement at the Closing.

AtheroNova Operations paid no compensation to its officers during 2009 or 2008.

On August 30, 2010, we entered into a Management Consulting Agreement (the "Management Agreement") with Thomas W. Gardner. The Management Agreement replaces our existing employment contract with Mr. Gardner. The Management Agreement has an initial term of three years. Under the terms of the Management Agreement, Mr. Gardner will be engaged to provide consulting and management services to us relating to the functions of chief executive officer and will have the full range of executive duties and responsibilities that are customary for public company chief executive officers, reporting to our board of directors. Mr. Gardner will be engaged until December 31, 2010 on a non-exclusive basis. Starting January 1, 2011, our board of directors will have the option, with 90 days written notice, to employ Mr. Gardner on a full-time basis as our chief executive officer. If Mr. Gardner declines such employment we may terminate the Management Agreement with 30 days written notice.

Mr. Gardner will receive an annual fee at an initial rate of $144,000, with an increase to $160,000 on the earlier of August 30, 2011 or our employment of Mr. Gardner on a full-time basis. In the event Mr. Gardner is employed on a full-time basis, Mr. Gardner's annual compensation shall increase to $190,000 on the first anniversary of his employment date and to $240,000 on the second anniversary of his employment date. Notwithstanding the foregoing, in the event that we consummate a capital raise transaction of at least $3,500,000 (a "Funding"), Mr. Gardner's annual compensation shall increase to $190,000 if such Funding is consummated before August 30, 2012, and $240,000 if such Funding is consummated on or after August 30, 2012. Mr. Gardner is also entitled to receive an annual bonus equal to 30% of his then applicable annual compensation if we successfully complete a Funding and we realize certain operating benchmarks to be determined by the compensation committee of our board of directors in the respective fiscal year. In addition, Mr. Gardner is entitled to reimbursement of his reasonable legal fees (up to $10,000) incurred in connection with negotiating the Management Agreement. Payments under the Management Agreement shall be grossed up to cover any taxes, interest and/or penalties incurred as a result of any payment under the Management Agreement being subject to the excise tax imposed by Section 4999 of the Internal Revenue Code of 1986, as amended.

The Management Agreement will terminate upon 30 days written notice by us if Mr. Gardner declines full time employment after our exercise of our option to employ Mr. Gardner on a full-time basis, Mr. Gardner's death or Disability (as defined in the Management Agreement), our termination of the Management Agreement for Cause (as defined in the Management Agreement) or without Cause, or Mr. Gardner's termination of the Management Agreement for Good Reason (as defined in the Management Agreement) or without Good Reason. Upon the termination of the Management Agreement for any reason we have agreed to pay Mr. Gardner his then current annual base compensation then earned, accrued vacation (if any) and unpaid reimbursements due to Mr. Gardner for expenses incurred by Mr. Gardner prior to the date of termination, subject to the applicable provisions of the Management Agreement. Upon the termination of the Management Agreement as a result of Mr. Gardner's death or as a result of our termination thereof without Cause or Mr. Gardner's termination thereof for Good Reason, we have also agreed to pay Mr. Gardner a prorated annual bonus (based on his then current annual base compensation), to the extent earned. In addition, upon our termination of the Management Agreement without cause or upon Mr. Gardner's termination of the Management Agreement for Good Reason, we have agreed to pay Mr. Gardner, subject the parties' entry into a general release, a lump sum payment of one year's then current annual base compensation as severance. The parties have agreed to resolve disputes under the Management Agreement through arbitration.

As an inducement material to Mr. Gardner's decision to enter into the Management Agreement we granted to Mr. Gardner options under the Plan to purchase 1,000,000 shares of our common stock. The options have a term of 7 years, a per share exercise price of $1.11 and vest 25% on the first anniversary of the date of grant and 6.25% on a quarterly basis thereafter until fully vested.

On August 30, 2010, we entered an Employment Agreement ("Employment Agreement") with Mark Selawski. The Employment Agreement replaces our existing employment agreement with Mr. Selawski. The Employment Agreement has an initial term of two years. Under the terms of the Employment Agreement, Mr. Selawski will be employed as our chief financial officer reporting to our chief executive officer.

Mr. Selawski will receive an annual salary at an initial rate of $144,000, with an increase to $168,000 on August 30, 2011. Notwithstanding the foregoing, in the event that we consummate a Funding Mr. Selawski's annual salary shall increase to $180,000 if such Funding is consummated before August 30, 2011, and $210,000 if such Funding is consummated on or after August 30, 2011. Mr. Selawski is also entitled to receive an annual bonus equal to 30% of his then applicable annual salary if we successfully complete a Funding and we realize certain operating benchmarks to be determined by the compensation committee of our board of directors in the respective fiscal year. Mr. Selawski will receive an automobile allowance of $300 per month, or with his consent, we may lease a vehicle for Mr. Selawski's use in lieu of paying such automobile allowance, and will be entitled to three weeks annual paid vacation. Mr. Selawski is also entitled to reimbursement of his reasonable legal fees (up to $10,000) incurred in

connection with negotiating the Employment Agreement. Payments under the Employment Agreement shall be grossed up to cover any taxes, interest and/or penalties incurred as a result of any payment under the Employment Agreement being subject to the excise tax imposed by Section 4999 of the Internal Revenue Code of 1986, as amended.

The Employment Agreement will terminate upon Mr. Selawski's death or Disability (as defined in the Employment Agreement), our termination of the Employment Agreement for Cause (as defined in the Employment Agreement) or without Cause, or Mr. Selawski's termination of the Employment Agreement for Good Reason (as defined in the Employment Agreement) or without Good Reason. Upon the termination of the Employment Agreement for any reason we have agreed to pay Mr. Selawski his then current annual base salary then earned, accrued vacation and unpaid reimbursements due to Mr. Selawski for expenses incurred by Mr. Selawski prior to the date of termination, subject to the applicable provisions of the Employment Agreement. Upon the termination of the Employment Agreement as a result of Mr. Selawski's Disability or as a result of our termination thereof without Cause or Mr. Selawski's termination thereof for Good Reason, we have agreed to offer COBRA coverage without administrative markup for a period of 18 months, or the maximum term permitted by then applicable law, if Mr. Selawski is not covered by any other comprehensive insurance that provides a comparable level of benefits to those provided under our then effective health plan. Upon the termination of the Employment Agreement as a result of Mr. Selawski's death we have agreed to pay Mr. Selawski a prorated annual bonus (based on his then current annual base salary) to the extent earned. In addition, upon our termination of the Employment Agreement without Cause or upon Mr. Selawski's termination of the Employment Agreement for Good Reason, we have agreed to pay Mr. Selawski, subject the parties' entry into a general release, a lump sum payment of one year's then current annual base salary as severance. The parties have agreed to resolve disputes under the Employment Agreement through arbitration.

As an inducement material to Mr. Selawski's decision to enter into the Employment Agreement we granted to Mr. Selawski options under the Plan to purchase 250,000 shares of our common stock. The options have a term of 7 years, a per share exercise price of $1.11 and vest 25% on the first anniversary of the date of grant and 6.25% on a quarterly basis thereafter until fully vested. Mr. Selawski also maintains the option granted to him on March 6, 2010 by AtheroNova Operations and assumed by us on May 13, 2010, to purchase 549,498 shares of our common stock at a purchase price of approximately $0.22 per share. Such options vest 25% on January 6, 2011 and 75% evenly on a monthly basis over the next three years thereafter and expire January 7, 2017.

Outstanding Equity Awards at Fiscal Year-End

We did not grant options to our executive officers during 2009.

AtheroNova Operations did not grant options to its executive officers during 2009.

Compensation of Directors

We did not pay compensation to our directors during 2009. Non-employee members of our board of directors will receive an annual fee of $7,500, and an additional annual fee of $5,000 for serving as the chairman of a committee of our board of directors, paid on the first day of the second month of each quarter. Members of our board of directors will also be reimbursed for their expenses, if any, of attendance at a meeting of our board of directors upon submission of appropriate documentation. Non-employee members of our board of directors will also receive an annual stock option grant to purchase 25,000 shares of our common stock, and an additional stock option grant to purchase 12,500 shares of our common stock for serving as the chairman of a committee of our board of directors, having terms of 7 years and vesting 25% on the date of grant and on each anniversary thereof. No such payment shall preclude any director from serving us in any other capacity and receiving compensation therefor except as otherwise provided under applicable law.

In connection with the initial grant of options to our non-employee directors, on August 30, 2010, we granted options to purchase 50,000 shares of our common stock to each non-employee director, and additional options to purchase 25,000 shares of our common stock to each non-employee director serving as the chairman of a committee of our board of directors, having terms of 7 years and vesting 25% on the date of grant and on each anniversary thereof.

AtheroNova Operations did not pay compensation to its directors during 2009.

PRINCIPAL AND SELLING STOCKHOLDERS

The following table presents information regarding the beneficial ownership of our common stock by the following persons both as of September 7, 2010 and as adjusted to reflect the sale of the common stock in this offering by the selling stockholders: (i) each executive officer and director, (ii) all executive officers and directors as a group, (iii) each stockholder known to be the beneficial owner of more than 5% of our outstanding common stock (not taking into account contractual restrictions on beneficial ownership) and (iv) each selling stockholder.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares beneficially owned, subject to community property laws where applicable. Shares of our common stock subject to options or warrants that are currently exercisable or exercisable within 60 days of September 7, 2010 are deemed to be outstanding and to be beneficially owned by the person holding the options for the purpose of computing the percentage ownership of that person but are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

W-Net Europa and MKM, the three selling stockholders, acquired the Notes convertible into, and Warrants exercisable for, shares of our common stock on May 13, 2010, pursuant to the Capital Raise Transaction, as further described in the Corporate History subsection of the Business section of this registration statement.

The information presented in this table is based on 22,687,553 shares of our common stock outstanding on September 7, 2010. Unless otherwise indicated, the address of each of the executive officers and directors and 5% or more stockholders named below is c/o AtheroNova Inc., 2301 Dupont Drive, Suite 525, Irvine, CA 92612.

Name of Beneficial Owner	Number of Shares Beneficially Owned Prior to Offering: Number	Percentage of Shares Outstanding	Number of Shares Being Offered	Number of Shares Beneficially Owned After Offering: Number	Percentage of Shares Outstanding
Executive Officers and Directors:					
Thomas W. Gardner	3,158,044	13.9%	--	3,158,044	13.9%
Mark Selawski	11,215	*	--	11,215	*
Filiberto Zadini, M.D. (1)	6,090,622	26.8%	--	6,090,622	26.8%
Boris Ratiner, M.D. (2)	2,934,454	12.1%	--	2,934,454	12.1%
Chaim Davis (3)	18,750	*	--	18,750	*
Gary Freeman (4)	18,750	*	--	18,720	*
All directors and executive officers as a group (5)	12,231,835	50.5%	--	12,231,835	50.5%
5% Stockholders:					
Giorgio Zadini 2237 Hilltop Lane Camarillo, CA 93012	6,078,122	26.8%	--	6,078,122	26.8%
Selling Stockholders:					
W-Net Fund I, L.P. (6) 12400 Ventura Blvd., Ste. 327 Studio City, CA 91604	2,152,159	8.7%	635,975	1,516,184	6.2%
Europa International, Inc. (7) 1114 Avenue of the Americas 45th Floor New York, NY 10036	2,152,159	8.7%	635,975	1,516,184	6.2%
MKM Opportunity Master Fund, Ltd. (8) c/o MKM Capital Advisors 1515 Broadway, 11th Fl. New York, NY 10036	1,908,798	7.8%	533,875	1,374,923	5.6%
TOTAL:	24,523,073	81.9%	1,805,825	22,717,248	75.9%

* Less than 1%

(1) Includes 12,500 shares of our common stock that may be acquired pursuant to the exercise of options within 60 days of September 7, 2010.

(2) Includes 18,750 shares of our common stock that may be acquired pursuant to the exercise of options and 1,457,852 shares of our common stock that may be acquired pursuant to the exercise of warrants within 60 days of September 7, 2010.

(3) Consists of 18,750 shares of our common stock that may be acquired pursuant to the exercise of options within 60 days of September 7, 2010.

(4) Consists of 18,750 shares of our common stock that may be acquired pursuant to the exercise of options within 60 days of September 7, 2010.

(5) Includes 68,750 shares of our common stock that may be acquired pursuant to the exercise of options and 1,457,852 shares of our common stock that may be acquired pursuant to the exercise of warrants within 60 days of September 7, 2010.

(6) Includes 1,272,532 shares of our common stock that may be acquired pursuant to the conversion of a Note, and 636,266 shares of our common stock that may be acquired pursuant to the exercise of a Warrant, within 60 days of September 7, 2010. The Note and the Warrant prohibit W-Net from converting the Note or exercising the Warrant if after such conversion and/or exercise W-Net would own more than 4.9% of our outstanding common stock. W-Net's beneficial ownership is therefore limited to 4.9% of our outstanding common stock until such time as the shares issuable under the Note and the Warrant, along with shares of our common stock held by W-Net, constitute 4.9% or less of our outstanding common stock, or W-Net elects to remove such restriction. David Weiner, as the manager of W-Net Fund GP I, LLC, the general partner of W-Net, exercises voting and dispositive power over the shares held by W-Net, and may be deemed to beneficially own such shares. Mr. Weiner disclaims any beneficial interest in the shares of our common stock owned by W-Net except to the extent of his pecuniary interest therein.

(7) Includes 1,272,532 shares of our common stock that may be acquired pursuant to the conversion of a Note, and 636,266 shares of our common stock that may be acquired pursuant to the exercise of a Warrant, within 60 days of September 7, 2010. The Note and the Warrant prohibit Europa from converting the Note or exercising the Warrant if after such conversion and/or exercise Europa would own more than 4.9% of our outstanding common stock. Europa's beneficial ownership is therefore limited to 4.9% of our outstanding common stock until such time as the shares issuable under the Note and the Warrant, along with shares of our common stock held by Europa, constitute 4.9% or less of our outstanding common stock, or Europa elects to remove such restriction. Fred Knoll, the principal of Knoll Capital Management, L.P., the investment manager for Europa, exercises voting and dispositive power over the shares held by Europa, but disclaims any beneficial interest in the shares of our common stock owned by Europa except to the extent of his pecuniary interest therein.

(8) Consists of 1,272,532 shares of our common stock that may be acquired pursuant to the conversion of a Note, and 636,266 shares of our common stock that may be acquired pursuant to the exercise of a Warrant, within 60 days of September 7, 2010. The Note and the Warrant prohibit MKM from converting the Note or exercising the Warrant if after such conversion and/or exercise MKM would own more than 4.9% of our outstanding common stock. MKM's beneficial ownership is therefore limited to 4.9% of our outstanding common stock until such time as the shares issuable under the Note and the Warrant, along with shares of our common stock held by MKM, constitute 4.9% or less of our outstanding common stock, or MKM elects to remove such restriction. David Skriloff, the portfolio manager of MKM Capital Advisors, LLC, the managing entity of MKM, exercises voting and dispositive power over the shares held by MKM, but disclaims any beneficial interest in the shares of our common stock owned by MKM except to the extent of his pecuniary interest therein.

In accordance with the terms of the Registration Rights Agreement we were required to register the resale of 130% of the sum of (i) the aggregate number of shares of our common stock issued or issuable upon conversion of the Notes as of the trading day immediately preceding the date this registration statement was filed with the SEC, and (ii) the aggregate number of shares of our common stock issued or issuable upon exercise of the Warrants as of the trading day immediately preceding the date this registration statement was filed with the SEC. To comply with the requirements of the staff of the SEC for resale registration statements filed under Rule 415(a)(1)(i), the selling stockholders agreed to require us to register for resale 486,722 issued and outstanding shares of our common stock and 1,319,103 of the shares of our common stock issuable upon conversion of the Notes.

The table below sets forth a comparison of the shares of our common stock included hereunder for registration and the shares of our common stock held by persons other than the selling stockholders, affiliates of our company and affiliates of the selling stockholders:

Shares outstanding prior to the convertible note transaction that are held by persons other than the selling stockholders, affiliates of our company, and affiliates of the selling stockholders	5,417,476
Shares registered for resale by the selling stockholders, individually and as a group, or affiliates of the selling stockholders in prior registration statements	0
Shares registered for resale by the selling stockholders, individually and as a group, or affiliates of the selling stockholders that continue to be held by the selling stockholders or affiliates of the selling stockholders	N/A
Shares that have been sold in registered resale transactions by the selling stockholders, individually and as a group, or affiliates of the selling stockholders	N/A
Shares registered for resale on behalf of W-Net Fund I, L.P. or its affiliates in the current transaction	635,975
Shares registered for resale on behalf of Europa International, Inc. or its affiliates in the current transaction	635,975
Shares registered for resale on behalf of MKM Opportunity Master Fund, Ltd. or its affiliates in the current transaction	533,875
Shares registered for resale on behalf of the selling stockholders as a group, or affiliates of the selling stockholders as a group in the current transaction	1,805,825

Changes in Control.

There are currently no arrangements which may result in a change of control of our company.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Other than the transactions described below, since January 1, 2009 there has not been, nor is there currently proposed, any transaction or series of similar transactions to which we were or will be a party:

- in which the amount involved exceeds $120,000; and
- in which any director, executive officer, selling stockholder named in this prospectus, other stockholder of more than 5% of our common stock or any member of their immediate family had or will have a direct or indirect material interest.

AtheroNova

On December 31, 2007, we executed a Demand Promissory Note (the "Demand Note") payable to Landbank Acquisition LLC ("Landbank"), in the principal amount of $500,000 with simple interest on the unpaid principal from the date of the note at the rate of eight percent (8%) per annum. Landbank was related to us through common major stockholders. The Demand Note was due on demand.

On October 19, 2009, we entered into a Revolving Promissory Note (the "Revolving Note") with Landbank. Under the terms of the Revolving Note, Landbank agreed to advance to us, from time to time and at our request, amounts up to an aggregate of $500,000 until October 19, 2010. All advances had to be paid on or before October 19, 2010 and interest accrued from the date of any advances on any principal amount withdrawn, and on accrued and unpaid interest thereon, at the rate of eight percent (8%) per annum, compounded annually. Our obligations under the Revolving Note would accelerate upon our bankruptcy, any default by us of our payment obligations under the Revolving Note or our breach of any provision of any material agreement between us and Landbank.

In connection with Landbank's sale to each of Europa and Woodman Management Corporation, the predecessor in interest to W-Net ("Woodman"), on October 19, 2009, of 198,278 shares of our common stock, the Demand Note was assigned to Woodman and Europa in equal parts. The Revolving Note was cancelled, and new notes (the "Replacement Notes") were issued by us to Woodman and Europa on October 19, 2009. The Replacement Notes contained identical terms and conditions to the Revolving Note, except that each Replacement Note provided that the noteholder would advance up to $250,000. Woodman transferred all of our securities, the portion of the Demand Note and the Replacement Note held by Woodman to W-Net on April 12, 2010. At the Closing, we converted all outstanding indebtedness under the Demand Note and the Replacement Notes, other than an aggregate amount of $250,000, into 90,166 shares of our common stock. We repaid the remaining $250,000 from the proceeds of the Capital Raise Transaction, with payments of $125,000 going to each of W-Net and Europa.

We had no transactions with MKM prior to the Capital Raise Transaction.

The following table sets forth comparative information regarding the outstanding shares of our common stock, the shares of our common stock (and the percentage represented thereby) issued in transactions with W-Net, and the market price of our common stock as of the date of the transaction and as of September 7, 2010.

	CONVERSION OF DEMAND & REPLACEMENT NOTE
Date of Transaction	05/13/10
Outstanding Shares of Common Stock Prior to Transaction	446,200
Outstanding Shares of Common Stock Prior to Transaction Held by Non-Affiliates (excluding the Selling Stockholders)	22,310
Shares of Common Stock issued in Transaction	45,083
Percentage of Total Issued and Outstanding Shares of Common Stock Issued in Transaction (Based on Outstanding Shares of Common Stock Held by Non-Affiliates (excluding the Selling Stockholders))	202.08%
Market Price Per Share of Common Stock Immediately Prior to Transaction	$20.00
Market Price Per Share of Common Stock as of September 7 2010	$2.00

The following table sets forth comparative information regarding the outstanding shares of our common stock, the shares of our common stock (and the percentage represented thereby) issued in transactions with Europa, and the market price of our common stock as of the date of the transaction and as of September 7, 2010.

	CONVERSION OF DEMAND & REPLACEMENT NOTE
Date of Transaction	05/13/10
Outstanding Shares of Common Stock Prior to Transaction	446,200
Outstanding Shares of Common Stock Prior to Transaction Held by Non-Affiliates (excluding the Selling Stockholders)	22,310
Shares of Common Stock issued in Transaction	45,083
Percentage of Total Issued and Outstanding Shares of Common Stock Issued in Transaction (Based on Outstanding Shares of Common Stock Held by Non-Affiliates (excluding the Selling Stockholders))	202.08%
Market Price Per Share of Common Stock Immediately Prior to Transaction	$20.00
Market Price Per Share of Common Stock as of September 7, 2010	$2.00

On August 30, 2010, we entered into a Management Consulting Agreement with Mr. Gardner and an Employment Agreement with Mr. Selawski. The terms of such agreements are described above.

AtheroNova Operations

On March 6, 2010, AtheroNova Operations issued warrants to Boris Ratiner to purchase 650,000 shares of AtheroNova Operations' common stock. The warrants had a term of 5 years and were exercisable at a purchase price of $0.50. We assumed these warrants in the Merger, which now entitle Mr. Ratiner to purchase 1,457,852 shares of our common stock for a term of 5 years at a per share price of approximately $0.22.

Transactions with Selling Stockholders

On May 13, 2010, we entered into the Securities Purchase Agreement with the Purchasers pursuant to which we sold to the Purchasers Notes having an aggregate purchase price of $1,500,000 and Warrants to purchase 1,908,798 shares of our common stock at a per share price of approximately $0.39. We also entered into the Registration Rights Agreement pursuant to which, among other things, we agreed to register the resale of the shares issuable upon conversion of the Notes and exercise of the Warrants by the Purchasers. Pursuant to the Registration Rights Agreement, we filed the registration statement of which this prospectus is a part with the SEC to register for resale the shares of common stock identified in this prospectus and owned by the selling stockholders.

LEGAL MATTERS

Stubbs Alderton & Markiles, LLP will pass upon the validity of the common stock offered by this prospectus for us.

EXPERTS

The audited financial statements of AtheroNova Operations for the years ended December 31, 2009 and 2008, included in this prospectus have been so included in reliance on the report of Anton & Chia, LLP, independent registered public accountants, given on the authority of said firm as experts in auditing and accounting. We acquired AtheroNova Operations as our subsidiary in the Merger. Immediately prior to the Merger, we had no material operations, assets, or liabilities. Accordingly, for all meaningful purposes the audited and unaudited financial statements for AtheroNova Operations which are included in this prospectus comprise our pro forma financials as well.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. We have also filed with the SEC under the Securities Act a registration statement on Form S-1 with respect to the common stock offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all the information set forth in the registration statement or the exhibits and schedules which are part of the registration statement, portions of which are omitted as permitted by the rules and regulations of the SEC. Statements made in this prospectus regarding the contents of any contract or other document are summaries of the material terms of the contract or document. With respect to each contract or document filed as an exhibit to the registration statement, reference is made to the corresponding exhibit. For further information pertaining to us and the common stock offered by this prospectus, reference is made to the registration statement, including the exhibits and schedules thereto, copies of which may be inspected without charge at the public reference facilities of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Copies of all or any portion of the registration statement may be obtained from the SEC at prescribed rates. Information on the public reference facilities may be obtained by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a web site that contains reports, proxy and information statements and other information that is filed through the SEC's EDGAR System. The web site can be accessed at http://www.sec.gov.

INDEX TO ANNUAL FINANCIAL STATEMENTS

Z&Z Medical Holdings, Inc.
(A Developmental Stage Company)

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Z&Z Medical Holdings, Inc:

We have audited the accompanying balance sheets of Z&Z Medical Holdings, Inc. (the "Company"), a development stage company, as of December 31, 2009 and 2008, and the related statements of operations, stockholders' equity and cash flows for each of the years ended December 31, 2009 and 2008 and for the period December 13, 2006 (Inception) through to December 31, 2009. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits include consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Z&Z Medical Holdings, Inc. as of December 31, 2009 and 2008, and the results of its operations and its cash flows for each of the years ended December 31, 2009 and 2008 and for the period December 13, 2006 (Inception) through to December 31, 2009 then ended, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. The Company has recurring losses from operations and had a deficit accumulated during the development stage of $385,945 at December 31, 2009. As discussed in Note 3 to the financial statements, a significant amount of additional capital will be necessary to advance operations to the point at which the Company is profitable. These conditions, among others, raise substantial doubt about the Company's ability to continue as a going concern. Management's plans regarding these matters are also described in Note 3. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Anton & Chia, LLP
Newport Beach, California
May 17, 2010

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Balance Sheets
As of December 31, 2009 and 2008

ASSETS

	2009	2008
Current Assets:		
Cash	$ 28,047	$ 91,370
Total current assets	28,047	91,370
Intellectual property rights	572,867	358,584
Total Assets	$ 600,914	$ 449,954
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable and accrued expenses	$ 211,859	$ 98,576
Notes payable related parties, current	-	100,000
Total current liabilities	211,859	198,576
Notes payable related parties, net of current portion	200,000	200,000
Total liabilities	411,859	398,576
Commitments and Contingencies		
Stockholders' Equity:		
Common stock, par value $0.001 per share, 20,000,000 shares authorized; 9,218,050 and 8,918,050 shares issued and outstanding at 2009 and 2008, respectively	9,218	8,918
Additional paid-in capital	565,782	416,082
Deficit accumulated during the development stage	(385,945)	(373,622)
Total stockholders' equity	189,055	51,378
Total Liabilities and Stockholders' Equity	$ 600,914	$ 449,954

See accompanying notes, which are an integral part of the financial statements.

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Statements of Operations
For the Years Ended December 31, 2009 and 2008
And for the period from December 13, 2006 (Inception) through December 31, 2009

	2009	2008	Cumulative From Inception
Revenues:	$ -	$ -	$ -
Expenses:			
General and administrative	12,453	175,182	487,635
Loss from operations:	(12,453)	(175,182)	(487,635)
Interest income	130	1,560	1,690
Provision for income taxes:	-	-	-
Net loss:	$ (12,323)	$ (173,622)	$ (485,945)
Net loss per share attributable to commons shares – Basic and Diluted:	$ (0.00)	$ (0.02)	-
Weighted average number of shares outstanding:	9,097,217	8,980,550	-

See accompanying notes, which are an integral part of the financial statements.

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Statements of Stockholders' Equity
For the Year Ended December 31, 2009 and 2008
and for the period from December 13, 2006 (Inception) through December 31, 2009

Description	Common stock Shares	Amount	Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total
Balance inception – December 13, 2006	-	$ -	$ -	$ -	$ -
Net loss	-	-	-	-	-
Balance - December 31, 2006	-	$ -	$ -	$ -	$ -
Net loss	-	-	-	-	-
Issuance of common stock to founders	8,468,050	8,468	191,532	(200,000)	-
Balance - December 31, 2007	8,468,050	$ 8,468	$ 191,532	$ (200,000)	$ -
Issuance of common stock for cash	450,000	450	224,550	-	225,000
Net loss	-	-	-	(173,622)	(173,622)
Balance - December 31, 2008	8,918,050	$ 8,918	$ 416,082	$ (373,622)	$ 51,378
Issuance of common stock for cash	300,000	300	149,700	-	150,000
Net loss	-	-	-	(12,323)	(12,323)
Balance - December 31, 2009	9,218,050	$ 9,218	$ 565,782	$ (385,945)	$ 189,055

See accompanying notes to the financial statements.

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Statements of Cash Flows
For the Years Ended December 31, 2009 and 2008
and for the period December 13, 2006 from (Inception) through December 31, 2009

	2009	2008	Cumulative From Inception
Operating Activities:			
Net loss	$ (12,323)	$ (173,622)	$ (485,945)
Changes in operating assets and liabilities			
Accounts payable and accrued expenses	13,284	198,576	311,860
Net Cash Provided (Used) by Operating Activities	961	24,954	(174,805)
Investing Activities:			
Acquisition of intellectual property	(214,284)	(158,584)	(372,868)
Net Cash Used in Investing Activities	(214,284)	(158,584)	(372,868)
Financing Activities:			
Proceeds from issuance of common stock	150,000	225,000	575,000
Net Cash Provided by Financing Activities	150,000	225,000	575,000
Net Increase (Decrease) in Cash	(63,323)	91,370	28,047
Cash - Beginning of Period	91,370	-	-
Cash - End of Period	$ 28,047	$ 91,370	$ 28,047
Supplemental Disclosures of Non Cash Investing and Financing Transactions:			
Common stock issued to founders	$ -	-	200,000
Notes payable related parties issued in exchange for intellectual property	$ -	$ 200,000	$ 200,000
Notes payable related parties issued in lieu of expense reports	$ -	$ 100,000	$ 100,000

See accompanying notes to the financial statements.

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Notes to Financial Statements

(1) Description of Business

Z&Z Medical Holdings, Inc. (the “Company”) was incorporated in the State of Nevada on December 13, 2006. On March 3, 2010, the Company reincorporated in Delaware.

The Company owns certain intellectual property (“IP”) consisting of pharmacological compounds and delivery systems for the treatment of cardiovascular disease. The Company plans to develop commercial relationships with third parties for the development, marketing and sale of products based on the IP and to derive revenue through the licensing of the IP to such third parties. The Company plans to further establish the curative aspects of and the licensing value of the Company’s IP reflective of the global market size and impact that its patents-pending pharmacological compounds and delivery systems will have on the world’s largest healthcare market, the cardiovascular diseases market.

(2) Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements have been prepared in accordance with generally accepted accounting principles (“GAAP”) as promulgated in the United States of America.

In July 2009, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Codification (“ASC”) 105-10, formerly Statement of Financial Accounting Standards ("SFAS") No. 168, The FASB Accounting Standards Codification and Hierarchy of Generally Accepted Accounting Principles, which became the single source of authoritative GAAP recognized by the FASB. ASC 105-10 does not change current U.S. GAAP, but on the effective date, the FASB ASC superseded all then existing non-SEC accounting and reporting standards. The ASC is effective for interim and annual reporting periods ending after September 15, 2009. The Company adopted ASC 105-10 during the year ended December 31, 2009 and revised its referencing of GAAP accounting standards in these financial statements to reflect the new standards.

Use of Estimates

Financial statements prepared in accordance with accounting principles generally accepted in the United States require management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Among other things, management has estimated the useful lives of patents, the valuation of long lived assets, and the variables used to calculate the valuation of warrants using the Black-Scholes option valuation model. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid temporary cash investments with an original maturity of three months or less to be cash equivalents. At December 31, 2009 and 2008, respectively, the Company had no cash equivalents.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash deposits. Accounts at each institution are insured by the Federal Deposit Insurance Corporation (FDIC) up to $250,000. At December 31, 2009, the Company had no amounts in excess of FDIC insured limit. While the Company periodically evaluates the credit quality of the financial institutions in which it holds deposits, it cannot reasonably alleviate the risk associated with the sudden possible failures of such institutions.

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Notes to Financial Statements

Revenue Recognition

The Company is in the development stage and has yet to realize revenues from planned operations. The Company will recognize revenue on arrangements in accordance with FASB ASC No. 605, "Revenue Recognition". In all cases, revenue is recognized only when the price is fixed and determinable, persuasive evidence of an arrangement exists, the service is performed and collectability of the resulting receivable is reasonably assured. The Company plans to expand the application and development of clinical modalities for the Company's IP through licensing agreements with select licensing partners to administer therapeutics. The Company will generate revenues primarily from IP licensing royalties. For licensing activities, revenue from such agreements will be realized over the term and under the conditions of each specific license once all contract conditions have been met. Payments for licensing fees are generally received at the time the license agreements are executed, unless other terms for delayed payment are documented and agreed to between the parties.

Research and Development Costs

Research and development costs consist of expenditures for the research and development of new products and technology. Research and development costs are expensed as incurred.

Intellectual Property

The Company obtained certain intellectual property from two Directors who are also stockholders. The intellectual property obtained was by assignment effective on December 1, 2006, the date of the initial meeting of the Board of Directors. Under Staff Accounting Bulletin Topic 5G, "Transfers of Nonmonetary Assets by Promoters and Shareholders," the Company recorded the transaction as an obligation payable to the Directors and stockholders' at the historical cost basis in the amount of $200,000. The Company accounts for its intellectual property and patent applications in accordance with ASC 350-30 and ASC 360 (formerly SFAS No. 142, Goodwill and Other Intangible Assets). The Company amortizes the capitalized intellectual property and patent costs on a straight line basis over a period of 19.5 years, management's estimated legal life of the patents, which approximates their estimated useful life. No amortization expense relating to these assets was recognized for the years ended December 31, 2009 and 2008, respectively, as the Company is still in the development stage.

Intangible and Long-Lived Assets

In accordance with ASC 350-30 (formerly SFAS No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets), the Company evaluates long-lived assets for impairment whenever events or changes in circumstances indicate that their net book value may not be recoverable. When such factors and circumstances exist, the Company compares the projected undiscounted future cash flows associated with the related asset or group of assets over their estimated useful lives against their respective carrying amount. Impairment, if any, is based on the excess of the carrying amount over the fair value, based on market value when available, or discounted expected cash flows, of those assets and is recorded in the period in which the determination is made. The Company's management currently believes there is no impairment of its long-lived assets. There can be no assurance, however, that market conditions will not change or demand for the Company's products under development will continue. Either of these could result in future impairment of long-lived asset.

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Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Notes to Financial Statements

Income Taxes

The Company accounts for income taxes under FASB Codification Topic 740-10-25 ("ASC 740-10-25"). Under ASC 740-10-25, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Under ASC 740-10-25, the effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

The Company maintains a valuation allowance with respect to deferred tax assets. The Company establishes a valuation allowance based upon the potential likelihood of realizing the deferred tax asset and taking into consideration the Company's financial position and results of operations for the current period. Future realization of the deferred tax benefit depends on the existence of sufficient taxable income within the carryforward period under the Federal tax laws.

Changes in circumstances, such as the Company generating taxable income, could cause a change in judgment about the realizability of the related deferred tax asset. Any change in the valuation allowance will be included in income in the year of the change in estimate.

Common Stock and Common Stock Warrants

The Company uses the fair value recognition provision of ASC 718, "Stock Compensation," which requires the Company to expense the cost of employee services received in exchange for an award of equity instruments based on the grant date fair value of such instruments. The Company uses the Black-Scholes option pricing model to calculate the fair value of any equity instruments on the grant date. The Company also uses the provisions of ASC 505-50, "Equity Based Payments to Non-Employees," to account for stock-based compensation awards issued to non-employees for services. Such awards for services are recorded at either the fair value of the services rendered or the instruments issued in exchange for such services, whichever is more readily determinable, using the measurement date guidelines enumerated in ASC 505-50.

Fair value of Financial Instruments

The Company adopted ASC topic 820, "Fair Value Measurements and Disclosures" (ASC 820), formerly SFAS No. 157 "Fair Value Measurements," effective January 1, 2009. ASC 820 defines "fair value" as the price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. There was no impact relating to the adoption of ASC 820 to the Company's financial statements.

Financial instruments consist principally of cash, accounts payable and accrued liabilities, and notes payable. The carrying amounts of such financial instruments in the accompanying balance sheets approximate their fair values due to their relatively short-term nature. It is management's opinion that the Company is not exposed to any significant currency or credit risks arising from these financial instruments.

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Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Notes to Financial Statements

Loss Per Share

Basic loss per share is calculated using the weighted-average number of common shares outstanding during each reporting period. Diluted loss per share includes potentially dilutive securities such as outstanding options and warrants, using various methods such as the treasury stock or modified treasury stock method in the determination of dilutive shares outstanding during each reporting period. Common equivalent shares are excluded from the computation of net loss per share since their effect is anti-dilutive.

For the years ended December 31, 2009 and 2008, we excluded any effect of the 650,000 and 450,000 outstanding warrants, respectively, as their effect would be anti-dilutive.

Recent Accounting Pronouncements

In June 2009, the FASB issued changes to the consolidation guidance applicable to a variable interest entity (VIE). FASB ASC Topic 810, "Consolidation," amends the guidance governing the determination of whether an enterprise is the primary beneficiary of a VIE, and is, therefore, required to consolidate an entity, by requiring a qualitative analysis rather than a quantitative analysis. The qualitative analysis will include, among other things, consideration of who has the power to direct the activities of the entity that most significantly impact the entity's economic performance and who has the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. This standard also requires continuous reassessments of whether an enterprise is the primary beneficiary of a VIE. FASB ASC 810 also requires enhanced disclosures about an enterprise's involvement with a VIE. Topic 810 is effective as of the beginning of interim and annual reporting periods that begin after November 15, 2009. This will not have an impact on the Company’s financial position, results of operations or cash flows.

FASB ASC No. 860 is effective as of the beginning of each reporting entity's first annual reporting period that begins after November 15, 2009, for interim periods within that first annual reporting period and for interim and annual reporting periods thereafter. This will not have an impact on the Company’s financial position, results of operations or cash flows.

(3) Development Stage Activities and Going Concern

The Company is currently in the development stage, and its business plan is to develop commercial relationships with third parties for the development, marketing and sale of products based on the IP and to derive revenue through the licensing of the IP to such third parties.

While management of the Company believes that the Company will be successful in its planned operating activities, there can be no assurance that the Company will be successful in the development of its intellectual property, or services that will generate sufficient revenues to sustain the operations of the Company. The Company also intends to conduct additional capital formation activities through the issuance of its common stock and to commence operations.

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America, which contemplate continuation of the Company as a going concern. The Company has incurred an operating loss since inception, had negative working capital as of December 31, 2009, and 2008, and the cash resources of the Company were insufficient to meet its planned business objectives. These and other factors raise substantial doubt about the Company’s ability to continue as a going concern. The accompanying

financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the possible inability of the Company to continue as a going concern.

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Notes to Financial Statements

(4) Common Stock and Common Stock Warrants

On December 1, 2007, the Company issued 8,468,050 shares of common stock to its founders at approximately $0.02 per share based on the fair value of the shares on the grant date. During the years ended December 31, 2009 and 2008, the Company issued 300,000 and 450,000 shares, respectively, of common stock. These subsequent issuances of common stock were issued for cash at a per share amount of $0.50. The Company recognized proceeds from these issuances during the years ended December 31, 2009 and 2008 of $150,000 and $225,000, respectively.

The Company also issued warrants exercisable into common stock of the Company. Certain common stock subscribers also received a warrant to purchase one share of common stock for every subscription share purchased. The exercise price of these warrants are equal to the price of shares of securities of the Company issued in a subsequent equity financing with an aggregate gross proceeds to the Company of at least $2,500,000. However, in the event the Company's valuation immediately prior to the financing is less than $20,000,000, the exercise price of the warrant shall be 50% of the purchase price per share of the Equity Securities offered. As of December 31, 2009 there are warrants to purchase 650,000 shares of the Company's common stock outstanding with expiration dates ranging from February 2013 through September 2014.

Shares underlying warrants issued:	2009	2008
Beginning balance	450,000	-
Shares granted	200,000	450,000
Ending balance	650,000	450,000

(5) Income Taxes

The provision (benefit) for income taxes for the periods ended December 31, 2009, and 2008, was as follows (using a 42.8 percent effective Federal and state income tax rate):

	2009	2008
Current Tax Provision:		
Federal and state-		
Taxable income	$ -	$ -
Total current tax provision	$ -	$ -
Deferred Tax Provision:		
Federal and state-		
Loss carryforwards	$ (26,620)	$ (41,148)
Valuation allowance	26,620	41,148
Total deferred tax provision	$ -	$ -

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Notes to Financial Statements

The Company had deferred income tax assets as of December 31, 2009, and 2008, as follows:

	2009	2008
Loss carryforwards	$ (67,768)	$ (41,148)
Less - valuation allowance	67,768	41,148
Total net deferred tax assets	$ -	$ -

As of December 31, 2009 and 2008, respectively, the Company had net operating loss carryforwards for income tax reporting purposes of approximately $67,768 and $41,148 that may be offset against future taxable income. Current tax laws limit the amount of loss available to be offset against future taxable income when a substantial change in ownership occurs or a change in the nature of the business. Therefore, the amount available to offset future taxable income may be limited.

No tax benefit has been reported in the financial statements for the realization of loss carryforwards, as the Company believes there is high probability that the carryforwards will not be utilized in the foreseeable future. Accordingly, the potential tax benefits of the loss carryforwards are offset by a valuation allowance of the same amount.

The Company is primarily subject to U.S. federal and state income tax. As a result of the implementation of certain provisions of ASC 740, Income Taxes, (formerly FIN 48, Accounting for Uncertainty in Income Taxes – An Interpretation of FASB Statement No. 109), the Company performed an analysis of its previous tax filings and determined that there were no positions taken that it considered uncertain. Therefore, there were no unrecognized tax benefits as of December 31, 2009 and 2008.

Future changes in the unrecognized tax benefit are not expected to have an impact on the effective tax rate due to the existence of the valuation allowance. The Company estimates that the unrecognized tax benefit will not change within the next twelve months. The Company will continue to classify income tax penalties and interest, if any, as part of interest and other expenses in its statements of operations. The Company has incurred no interest or penalties as of December 31, 2009 and 2008.

6) Related Party Transactions

On December 1, 2006, the Company received certain intellectual property through an intellectual property assignment agreement from two Directors of the Company who are also stockholders. In exchange for the intellectual property, the Company issued two $100,000 non-interest bearing notes payable. These notes payable are recorded in the accompanying financial statements in notes payable related parties, net of current portion.

During the year ended December 31, 2008, the Company issued four $25,000 non-interest bearing notes payable to certain Directors and employees of the Company in lieu of expense reports. These notes payable are recorded in the accompanying financial statements in notes payable related parties, current. The Directors and employees forgave the notes payable on December 31, 2009.

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Notes to Financial Statements

(7) Commitments and Contingencies

The Company has executed three year employment contracts with Thomas Gardener, Filiberto Zadini, Giorgio Zadini and Aaron Sandoval, each with a salary and salary increases at the discretion of the Board of Directors not to exceed 10% per annum or the previous calendar year's percentage increase in the Consumer Price Index, whichever is greater. The contracts are not in effect until the Company raises the equity financing with an aggregate gross proceeds to the Company of at least $2,500,000.

The Company has executed a contract in May 2008 with The University of California (the “University”), on behalf of its Los Angeles Campus under which the University shall conduct a laboratory study to demonstrate the efficacy of the Company’s biocompatible emulsifiers on atherosclerotic lesions. The contract calls for progress payments upon the completion of various stages of the study and the total obligation to the University for completion of the study totals $200,600. To date, a total of $90,150 has been paid on the contract.

(8) Subsequent Events

In preparing these financial statements, the Company has evaluated events and transactions for potential recognition or disclosure through May 17, 2010, the date the financial statements were issued.

On March 6, 2010, the Company issued options to purchase 245,000 shares of common stock of the Company at $0.50 per share as part of an employment agreement with our Chief Financial Officer. The option vests 25% on January 6, 2011 and 75% evenly on a monthly basis over the next three years thereafter and expire January 7, 2017.

On January 8, 2010, the Company issued 5,000 shares of its common stock for cash at a price of $0.50 per share. The Company recorded proceeds for this issuance of $2,500.

During the first quarter, the Company sold an additional common stock subscription unit consisting of 450,000 shares and a warrant to purchase an additional 450,000 shares. The subscription unit was sold at a price of $0.50 per share, with a net proceeds to the company of $225,000.

The Company has also issued warrants to purchase 500,000 shares of common stock at $0.50 per share to a director of the Company as compensation for services rendered in connection with the reverse merger and financing consented to by a majority of the stockholders of the Company.

On May 13, 2010, the Company completed its reverse merger transaction with Trist Holdings, Inc. (“Trist”). Effective as of the closing, Z&Z became a wholly-owned subsidiary of Trist and changed its name to AtheroNova Operations, Inc. As a result of the closing, the business operations of Z&Z will comprise Trist's principal business operations going forward. Immediately after the closing of the merger, Trist closed a capital raise transaction through the placement of $1.5 million in 2.5% Senior Secured Convertible Notes which mature 4 years after issuance. Interest on the Convertible Notes, which will accrue at the rate of 2.5% per year, is not payable until maturity or conversion, and is payable in cash or common stock. Also, Trist has changed its name to AtheroNova Inc. to more accurately reflect the company's emphasis in the healthcare market and anticipates that the company will begin trading under the symbol AHRO on the OTC Bulletin Board as of May 25, 2011.

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Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Notes to Financial Statements

At the closing, pursuant to the terms of the Merger Agreement dated March 26, 2010, by and among Trist, Z&Z and Z&Z Merger Corp., all of the outstanding shares, warrants and options of Z&Z were exchanged for shares of, and warrants and options to purchase, Trist's Super-Voting Common Stock. Each share of Trist's Super-Voting Common Stock will automatically convert into 50 shares (on a pre-reverse split basis) of Trist's Common Stock upon the consummation of a 200-for-1 reverse split of Trist's Common Stock. As a result of the merger, Z&Z stockholders own 88,575,048 shares of Trist's Super-Voting Common Stock (22,143,771 shares of Trist's Common Stock on a post-reverse split basis), or approximately 97.6% of the total shares outstanding.

The Convertible Notes are convertible into 3,817,596 shares of common stock (on a post-reverse split basis), excluding accrued interest, which may also be paid in stock. If held to maturity and all accrued interest is paid in common stock an additional 381,762 shares would be issued. The purchasers of the Convertible Notes also received Warrants to purchase another 1,908,798 shares of common stock (on a post-reverse split basis) at an exercise price of $0.39 per share (on a post-reverse split basis). The shares of Trist's Common Stock issuable upon conversion (excluding the conversion of accrued interest) and exercise of the Notes and Warrants represent approximately 17.6% of the Company's outstanding capital stock as of the closing of the capital raise transaction on a fully-diluted basis.

As a result of the merger and the capital raise transaction, Z&Z stockholders own 80.8% of Trist's fully-diluted Common Stock, Trist stockholders immediately prior to the merger own 1.6% of Trist's fully-diluted Common Stock and the holders of Convertible Notes and Warrants issued in the capital raise transaction own 17.6% of Trist's fully-diluted Common Stock.

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AtheroNova, Inc.
(A Developmental Stage Company)
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ATHERONOVA INC.
(A Development Stage Company)
Condensed Consolidated Balance Sheets

	June 30, 2010 (unaudited)	December 31, 2009
Assets		
Current Assets		
Cash	$900,353	$28,047
Other Current Assets	29,489	--
Total Current Assets	$929,842	$28,047
Equipment, net	5,122	--
Intellectual property rights	572,867	572,867
Deferred loan costs, net	101,539	--
Total Assets	$1,609,370	$600,914
Liabilities and Stockholders' Equity (Deficit)		
Current Liabilities:		
Accounts payable	$210,600	$211,859
Note payable – related party, current	--	200,000
Interest payable	5,000	--
Derivative Liability	3,542,348	--
Total Current Liabilities	$3,757,948	$411,859
Long-term liabilities:		
2.5% Senior secured convertible notes, net of discount	31,250	--
Stockholders' Equity (Deficit):		
Common stock $0.0001 par value, 100,000,000 shares authorized, 22,687,553 and 9,218,050 outstanding at June 30, 2010 and December 31, 2009, respectively(*)	$2,268	$921
Additional paid in capital(*)	1,302,654	574,079
Deficit accumulated during the development stage	(3,484,750)	(385,945)
Total stockholders' equity (deficit)	(2,179,828)	189,055
Total Liabilities and Stockholders' Equity (Deficit)	$1,609,370	$600,914

(*) The December 31, 2009 capital accounts of the Company have been retroactively restated to reflect the equivalent number of common shares based on the exchange ratio of the merger transaction. See Note 2.

See accompanying notes, which are an integral part of the financial statements.

ATHERONOVA INC.
(A Development Stage Company)
Condensed Consolidated Statements of Operations
(Unaudited)
For the three month periods ended June 30, 2010 and 2009 and six month period ended June 30, 2010 and 2009,
And for the period from December 13, 2006 (Inception) through June 30, 2010

	Three months ended June 30,		Six months ended June 30,		Cumulative From Inception
	2010	2009	2010	2009	
Revenue, net	$--	$--	$--	$--	$--
Operating expenses:					
Research and development	$50,450	$--	$110,450	$--	$200,600
General and administrative expenses	935,834	4,270	908,467	7,433	1,205,952
Total operating expenses	$986,284	$4,270	$1,018,917	$7,433	$1,406,552
Loss from operations	(986,284)	(4,270)	(1,018,917)	(7,433)	(1,406,552)
Other income / expenses:					
Other income	(463)	(18)	(469)	(126)	(2,159)
Interest expense	36,250	--	36,250	--	36,250
Change in fair value of derivative liabilities	2,042,348	--	2,042,348	--	2,042,348
Net loss before income taxes	$(3,064,419)	$(4,252)	$(3,097,046)	$(7,307)	$(3,482,991)
Provision for income taxes	800	--	1,759	--	1,759
Net loss	$(3,065,219)	$(4,252)	$(3,098,805)	$(7,307)	$(3,484,750)
Basic and diluted loss per share*	$(0.17)	$(0.00)	$(0.22)	$(0.00)	
Basic and diluted weighted average shares outstanding*(1)	18,411,635	9,018,050	13,974,842	9,018,050	

* Weighted average number of shares used to compute basic and diluted loss per share is the same since the effect of dilutive securities is anti-dilutive.

(1) The capital accounts of the Company have been retroactively restated to reflect the equivalent number of common shares based on the exchange ratio of the merger transaction in determining the basic and diluted weighted average shares. See Note 2.

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 13, 2006 (Inception) through June 30, 2010

Description	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Deficit Accumulated During Development Stage	Total Stockholders' Equity (Deficit)
Balance Inception – December 13, 2006	--	$--	$--	$ --	$ --
Balance – December 31, 2006	--	--	--	--	--
Issuance of Common Stock to Founders	8,468,050	847	199,153	--	200,000
Net loss	--	--	--	(200,000)	(200,000)
Balance – December 31, 2007	8,468,050	847	199,153	(200,000)	--
Issuance of Common Stock for Cash	450,000	45	224,955	--	225,000
Net loss	--	--	--	(173,622)	(173,622)
Balance – December 31, 2008	8,918,050	$892	$424,108	$ (373,622)	$ 51,378
Issuance of Common Stock for Cash	300,000	30	149,970	--	150,000
Net Loss	--	--	--	(12,323)	(12,323)
Balance – December 31, 2009	9,218,050	$922	$574,078	$ (385,945)	$ 189,055
Issuance of common stock for cash	450,000	45	224,955	--	225,000
Issuance of common stock in payment of accounts payable	200,000	20	99,980	--	100,000
Warrants issued for consulting	--	--	716,727	--	716,727
Share-based compensation	--	--	10,208	--	10,208
Shares issued in reverse merger	12,819,503	1,281	(323,294)	--	(322,013)
Net loss	--	--	--	(3,098,805)	(3,098,805)
Balance – June 30, 2010	22,687,553	$2,268	$1,302,654	$ (3,484,750)	$ (2,179,828)

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

ATHERONOVA INC.
(A Development Stage Company)
Condensed Consolidated Statements of Cash Flows
(Unaudited)
For the six month periods ended June 30, 2010 and 2009
And for the period from December 13, 2006 (Inception) through June 30, 2010

	Six months ended June 30,		Cumulative From Inception
	2010	2009	
Operating Activities:			
Net loss	$(3,098,805)	$(7,307)	$(3,484,750)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Amortization of debt discount	31,250	--	31,250
Depreciation & amortization	4,740	--	4,740
Stock based compensation	826,935	--	826,935
Net derivative liability	2,042,348	--	2,042,348
Changes in operating assets and liabilities:			
Accounts payable	(323,272)	20,959	(111,412)
Accrued expenses	(201,560)	--	(201,560)
Interest payable	5,000	--	5,000
Other current assets	(29,489)	--	(29,489)
Net cash provided by (used in) operating activities	$(742,853)	$13,652	$(916,938)
Investing Activities			
Purchase of equipment	(5,442)	--	(5,442)
Investment in intellectual property	--	(65,959)	(372,868)
Net cash used in investing activities	(5,442)	(65,959)	(378,310)
Financing Activities			
Proceeds from issuance of common stock	225,000	--	800,000
Cash received from reverse merger	1,560	--	1,560
Proceeds from sale of 2.5% senior secured convertible notes, net	1,394,041	--	1,394,041
Net cash provided by financing activities	$1,620,601	$--	$2,195,601
Net change in cash	872,306	(52,307)	900,353
Cash - beginning balance	28,047	91,370	--
Cash - ending balance	$900,353	$39,063	$900,353
Supplemental disclosure of cash flow information:			
Income taxes	$1,759	$--	$1,759
Supplemental disclosure of non-cash investing and financing transactions:			
Common stock issued to founders	$--	$--	$200,000
Notes payable to related parties issued in exchange for intellectual property	$(200,000)	$--	$--
Net liability assumed in reverse merger	$250,000	$--	$250,000
Derivative liability on warrants issued	$1,174,923	$--	$1,174,923
Net shares issued in merger	$1,282	$--	$1,282

See accompanying notes to condensed consolidated financial statements.

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ATHERONOVA INC. and SUBSIDIARY
(A Development Stage Company)
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

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, 2010 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, 2009, which are included in the Company's Report on Form 8-K for such year filed on May 20, 2010. The condensed consolidated balance sheet as of December 31, 2009 has been derived from the audited financial statements included in the Form 8-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. See further discussions in Note 2 below.

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. The Company is currently in contractual discussions with 2 research sites for its second pre-clinical trial.

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 assumed options and warrants became exercisable to purchase an aggregate of up to 4,362,964 shares of AtheroNova common stock. The Company also has reserved an additional 3,813,466 shares for future issuance under the 2010 Stock Incentive Plan.

ATHERONOVA INC. and SUBSIDIARY
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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

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.

Reverse Merger Accounting

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 received cash of $1,560 and assumed net liabilities of $250,000.

On March 26, 2010, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") by and among the Company, Z&Z Medical Holdings, Inc., a Delaware corporation ("Z&Z") and Z&Z Merger Corporation., a Delaware corporation and wholly-owned subsidiary of the Company (the "Merger Sub"). The closing (the "Closing") of the transaction contemplated by the Merger Agreement (the "Merger") occurred on May 13, 2010. At the closing, (i) Merger Sub was merged with and into Z&Z, whose name was concurrently changed to AtheroNova Operations Inc. ("AtheroNova Operations"); (ii) Z&Z, as AtheroNova Operations, became our wholly-owned subsidiary; (iii) all of AtheroNova Operations shares, warrants and options outstanding prior to the merger were exchanged (or assumed, in the case of warrants and options) for comparable securities of our company, and (iv) approximately 98% of our fully-diluted shares (excluding shares issuable in the capital raise transaction (as defined below)) were owned by AtheroNova Operations former stockholders, warrant holders and option holders. At the Closing, we issued to AtheroNova Operations' former stockholders, in exchange for the 9,837,050 shares of AtheroNova Operations' common stock outstanding prior to the Merger, 88,575,048 shares of our Super-Voting Common Stock, par value $0.0001 per share(the Super-Voting Common Stock"), which, as a result of the approval by the holders of a substantial majority of our stock entitled to vote and the approval by our board of directors on May 21, 2010, of amendments to our certificate of incorporation, as amended, that (i) decreased our 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, on June 23,2010 converting to 22,143,771 shares of our common stock. Immediately prior to the merger, we were a public shell company with nominal assets. As a result of the merger we are solely engaged in AtheroNova Operations' business, AtheroNova Operations' officers became our officers and three AtheroNova Operations' directors became members of our seven-member boards of directors (which currently has two vacancies).

ATHERONOVA INC. and SUBSIDIARY
(A Development Stage Company)
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

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. All financial information in this document is that of our company and AtheroNova Operations.

On May 13, 2010, we also entered into a Securities Purchase Agreement (the "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) 2.5% Senior Secured Convertible Notes (the "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 1,908,798 shares of our common stock at an exercise price of approximately $0.39 per share (the "Warrants") (the "Capital Raise Transaction"). The Notes, including accrued interest through their maturity, are convertible into 4,199,358 shares of our common stock at a conversion price of approximately $0.39 per share.

Condensed Consolidated Financial Statements

The accompanying unaudited condensed consolidated financial statements primarily reflect the financial position, results of operations and cash flows of AtheroNova Operations (as discussed above). The accompanying unaudited condensed consolidated financial statements of AtheroNova Operations have been prepared in accordance with GAAP for interim financial information and pursuant to the instructions to Form 10-Q and Article 8 of Regulation S-X promulgated by the Securities and Exchange Commission ("Commission"). Accordingly, these interim financial statements do not include all of the information and footnotes required by GAAP for annual financial statements. In the opinion of management, all adjustments (consisting only of normal recurring adjustments) considered necessary for a fair presentation have been included. Operating results for the three and six months ended June 30, 2010 are not necessarily indicative of the results that may be expected for the year ending December 31, 2010, or for any other period. Amounts related to disclosures of December 31, 2009 and balances within those interim condensed consolidated financial statements were derived from the audited 2009 consolidated financial statements and notes thereto filed as Exhibit 99.2 to the Current Report on Form 8-K (File No. 000-52315) filed with the Commission on May 20, 2010.

Use of Estimates

These unaudited condensed consolidated financial statements should be read in conjunction with the audited financial statements and notes thereto for AtheroNova Operations included in AtheroNova's Current Report on Form 8K (File No. 000-52315) filed with the Commission on May 20, 2010. In preparing these condensed 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.

ATHERONOVA INC. and SUBSIDIARY
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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

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 working capital of $714,242 excluding the derivative liability of $3,542,348, an accumulated deficit of $3,484,750 at June 30, 2010, recurring losses from operations and cash flow used in operating activities of $742,853 for the six months ended June 30, 2010. 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 expects that the current funds on hand will be sufficient to continue operations through the second quarter of 2011. There are current plans to seek additional funds through a series of meetings and conferences organized to attract additional investment in the Company via private placement stock sales. There can be no assurances that sufficient funding, if any at all, will be raised by these meetings or the cost of such investments 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. One such source, related to the Healthcare Reform Bill passed in 2010, allows a cash grant of 50% of all 2009 and 2010 spending on research by small companies in the healthcare field. Management has submitted the necessary application for a cash grant of approximately $75,000. Notification of the approval of the grant is expected in October 2010.

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.

Research and Development Costs

Costs incurred for research and development are expensed as incurred. Purchased materials that do not have an alternative future use are also expensed. For the three months ended June 30, 2010 and 2009, research and development costs incurred were $50,450 and $0, respectively.

Income Taxes

In June 2006, GAAP issued Interpretation on Accounting for Uncertainty in Income Taxes which establishes a single model to address accounting for uncertain tax positions and clarifies the accounting for income taxes by prescribing a minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. Also, it provides guidance on derecognition, measurement, classification, interest and penalties, accounting in interim periods, disclosure and transition. The Company adopted the provisions of this guidance. Upon adoption, the Company recognized no adjustment in the amount of unrecognized tax benefits.

ATHERONOVA INC. and SUBSIDIARY
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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Basic and Diluted Loss per Share

In accordance with US GAAP, the Company calculates basic and diluted net loss per share using the weighted average number of common shares outstanding during the periods presented.

We incurred a net loss in each period presented, and as such, did not include the effect of potentially dilutive common stock equivalents in the diluted net loss per share calculation, as their effect would be anti-dilutive for all periods. Potentially dilutive common stock equivalents would include the common stock issuable upon the exercise of warrants, stock options and convertible debt. As of June 30, 2010 and 2009, all potentially dilutive common stock equivalents amount to 6,046,853 and 650,000 respectively. These amounts do not include the 3,817,594 shares issuable upon the conversion of the Convertible Notes issued by the Company on May 13, 2010 (see Note 6).

On June 23, 2010, we effectuated a reverse stock split of our outstanding common stock, with special treatment for certain of our stockholders to preserve round lot holders. The effect of the reverse stock split has been adjusted for in these condensed consolidated financial statements. We also decreased the number of authorized shares of common stock from 2,000,000,000 to 100,000,000, and authorized 10,000,000 shares of “blank check” preferred stock.

Revenue Recognition

As of June 30, 2010, the Company has not generated any revenues from the development of its products and is therefore still considered to be a development stage company.

Financial Instruments

At June 30, 2010 and December 31, 2009, the fair values of cash and cash equivalents, and accounts payable approximate their carrying values. At June 30, 2010 the fair value of the Notes does not approximate its carrying value as a portion of the fair value is reflected as a component of derivative liability.

New Accounting Pronouncements

In January 2010, the FASB issued a new pronouncement, Improving Disclosures about Fair Value Measurements (ASU 2010-06). This provision amends previous provisions that require reporting entities to make new disclosures about recurring and nonrecurring fair value measurements including the amounts of and reasons for significant transfers into and out of Level 1and Level 2 fair value measurements and separate disclosure of purchases, sales, issuances, and settlements in the reconciliation of Level 3 fair value measurements. This pronouncement was effective for interim and annual reporting periods beginning after December 15, 2009, except for Level 3 reconciliation disclosures which are effective for interim and annual periods beginning after December 15, 2010. The adoption of this pronouncement did not have a material impact on the Company’s results of operations or financial condition.

In February 2010, the FASB issued new accounting guidance that amends the previous guidance to (1) eliminate the requirement for an SEC filer to disclose the date through which it has evaluated subsequent events, (2) clarify the period through which conduit bond obligors must evaluate subsequent events and (3) refine the scope of the disclosure requirements for reissued financial statements. The Company adopted this new accounting guidance. The adoption of this guidance did not have a material impact on our financial statements.

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ATHERONOVA INC. and SUBSIDIARY
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3. SHARE-BASED COMPENSATION

The Company has a stockholder-approved stock incentive plan for employees, directors, officers and consultants. Effective with the adoption of the 2010 Stock Incentive Plan, the Company adopted the share-based payment method for employee/director options and warrants. This method of accounting for stock options eliminated the option to use the intrinsic value method and required the Company to expense the fair value of all employee options over the vesting period. Under this method, the Company recognized compensation cost for the quarter ended June 30, 2010 which includes period compensation cost related to share-based payments granted since adoption of the plan, based on the grant date fair value estimated in accordance with the new accounting methodology. Since the Company has no outstanding share-based compensation outstanding for prior years, the Company has no need to address prior period results.

The Company recognizes compensation expense related to stock option grants over the vesting period. For the three month period ended June 30, 2010, the Company recognized share-based employee compensation cost of $10,208. The Company did not capitalize any share-based compensation cost.

To compute compensation expense in 2010, the Company estimated the fair value of each option award on the date of grant using the Black-Scholes model. 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 2010:

	Three months ended June 30,	
	2010	2009
Expected volatility	139%	--
Dividend yield	--	--
Expected term (in years)	4	--
Risk-free interest rate	2.20%	--

The Company has a stockholder-approved stock incentive plan for employees under which it has granted incentive 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. At June 30, 2010 there were no options granted under the 2010 Plan and there were options outstanding to purchase 549,498 shares granted outside any plan. There were 4,362,964 shares reserved for future grants under the 2010 Plan.

ATHERONOVA INC. and SUBSIDIARY
(A Development Stage Company)
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

A summary of the status of the Company's stock options as of June 30, 2010 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, 2009	-	$ -	-	-
Granted	549,498	$ 0.223	6.4167	
Exercised	-	-	-	-
Cancelled	-	-	-	-
Outstanding at June 30, 2010	549,498	$ 0.223	6.4167	$ 262,110
Exercisable at June 30, 2010	-	$ -	-	$ -
Weighted-average fair value of options granted during the six month period ended June 30, 2010	$ 0.223			

As of June 30, 2010, the total compensation cost related to nonvested option awards not yet recognized is $252,902. The weighted average period over which it is expected to be recognized is approximately 3.4 years.

4. WARRANTS

The Company also issued warrants to purchase shares of common stock of the Company. Certain common stock warrants were assumed by the Company in connection with the Merger (See Note 1). A fully-vested warrant to purchase 1,121,424 post-merger shares at $0.223 per share issued in the quarter by AtheroNova Operations and assumed by the Company was recorded as $716,727 of stock-based compensation expense in the three months ended June 30, 2010. All pre-merger warrants were assumed with a cost equivalent cost of that of the warrant that had been issued by AtheroNova Operations. The assumed warrants also kept the same expiration date as the original warrant issued.

During the three months ended June 30, 2010, we also issued warrants to purchase 1,908,797 shares of our common stock associated with the Capital Raise transaction consummated on May 13, 2010 (See Note 1). These warrants have a 4 year term, are exercisable at any time, have a cashless exercise feature which allows the purchaser the option to determine a net number of shares that would be received based on the then current market price and have an automatic conversion clause upon maturity if not previously exercised. Additionally, these warrants were originally issued with an exercise price of $0.39 but the warrant agreement contains an anti-dilution which allows for certain adjustments to the exercise price in case of future issuance of stock below at a price below the original exercise price, see related accounting treatment under Footnote 7.

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As of June 30, 2010 there are warrants to purchase 5,497,355 shares of our common stock outstanding with expiration dates ranging from February 2013 through September 2014 and exercise prices ranging from $0.22 to $0.39. A summary of the status of our warrants as of June 30, 2010 and changes during the period then ended is presented below:

Shares underlying warrants issued:	
Beginning balance at January 1, 2010	-
Shares granted or assumed	5,497,355
Ending balance at June 30, 2010	5,497,355

5. 2.5% SENIOR SECURED CONVERTIBLE NOTES PAYABLE

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 381,759,427 pre-Reverse Split (1,908,797 shares post Reverse) of our common stock at an exercise price equal to approximately $0.00196539 per share ($0.39 on a post Reverse Split basis). 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.

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 guaranteed all of our obligations under the Notes.

Each Note is convertible at any time into common stock at a specified conversion price, which is initially approximately $0.39 per share. Immediate conversion of the Notes would result in the holders receiving 3,817,594 shares of our 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 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 under footnote 7.

The Notes will 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 will also limit and impose financial costs on our acquisition by any third party.

On May 13, 2010 and in connection with the Capital Raise Transaction, we entered into a Registration Rights Agreement with the Purchasers pursuant to which we agreed, at our expense (other than to pay the initial filing expense which will be paid by the Purchasers), generally to promptly file, process and keep open a registration statement under the Securities Act of 1933, as amended (the "Securities Act"), covering all shares that are or may be issued upon conversions of the Notes or exercises of the Warrants, and to qualify resales of such shares under certain state securities laws. An initial S-1 Registration Statement was filed by the Company on June 29, 2010, covering only the shares underlying the conversion of the Notes. This filing was made with the full knowledge and approval of the Note holders that the shares underlying the Warrants would not be included in the S-1 Registration Statement. The Note holders have waived any covenant violations or penalties regarding the non-registration of the shares underlying the Warrants in this filing. If the registration statement does not become effective within a specified time or its effectiveness is not maintained as specified in the agreement, we may owe liquidated damage amounts to the Purchasers. At June 30, 2010, no penalties or liquidated damages have been booked since the probability of incurring those fees is still remote. Management will assess the need for any accrual at each reporting period.

Under the Securities Purchase Agreement, if we meet three specified operating benchmarks during the first twelve months after the closing of the first 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 12-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 original Notes.

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The Notes and Warrants were issued in a private placement, exempt from the Securities Act registration requirements, to purchasers that were accredited investors.

6. DERIVATIVE LIABILITY

In April 2008, the FASB issued a pronouncement which 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 convertible debt and warrants issued to W-Net, Europa and MKM in May 2010 contained such provisions and were recorded as derivative liability.

In accordance with this pronouncement, the Company estimated the fair value of the conversion feature to be $2,370,245 as of the date of the sales of the Notes, May 13, 2010, and recorded a non-cash charge in the quarter ended June 30, 2010 for that amount in our condensed consolidated statement of operations as a component of other (income) expense. As of June 30, 2010, the fair value of this derivative was $2,367,425 as recorded in the accompanying balance sheet as of June 30, 2010, as a component of a current liability, derivative liability. The change of $(2,820) in fair value from the sale date through the quarter ended June 30, 2010 is reported as a non-cash income item in our statement of operations. The net change of $2,367,425 is the net change to other (income) expense in our statement of operations for the three and six months ended June 30, 2010.

Also in accordance with this pronouncement, the Company estimates the fair value of the warrants to be $1,176,323 as of the date of the issuance of the warrants, May 13, 2010, and recorded a non-cash change in the quarter ended June 30, 2010 for that amount as a component of other (income) expense in our statement of operations. As of June 30, 2010, the fair value of this derivative was $1,174,923 as recorded in the accompanying balance sheet as of June 30, 2010, as a component of a current liability, derivative liability. The change of $(1,400) in fair value from the sale date through the end of the quarter ended June 30, 2010 is reported as a non-cash income item in our statement of operations. The net change of $1,174,923 is the net charge to other (income) expense in our statement of operations for the three and six months ended June 30, 2010.

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These derivative liabilities have been measured in accordance with GAAP. The valuation assumptions are classified within Level 2 inputs. The following table represents the Company's derivative liability activity:

Issuance of derivative financial instruments	3,546,568
Mark-to-market adjustment to fair value at June 30, 2010	(4,220)
June 30, 2010	$ 3,542,348

These instruments were not issued with the intent of effectively hedging any future cash flow, fair value of any asset, liability or any net investment in a foreign operation. The instruments do not qualify for hedge accounting, and as such, all future changes in the fair value will be recognized currently in earnings until such time as the instruments are exercised, converted or expire. The following assumptions were used to determine the fair value of the conversion feature and warrants as of June 30, 2010:

	June 30, 2010
Weighted- average volatility	139%
Expected dividends	0.0%
Expected term	4 years
Risk-free rate	1.79% to 2.20%

The Company used an average three valuation methodologies to determine the value of the Company's shares since upon the consummation of the merger transaction, the shares of the Company was thinly traded on the OCT BB and therefore the share price in the market did not reflect the true value of these shares. Management concluded that the share price as of May 13, 2010 and June 30, 2010 was $0.70/share.