AtheroNova Inc.
Form S-1
June 29, 2010

As filed with the Securities and Exchange Commission on June 29, 2010 Registration No. ___-____

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

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FORM S-1
REGISTRATION STATEMENT
UNDER THE
SECURITIES ACT OF 1933
(Amendment No. __)

_____

ATHERONOVA INC.
(Exact name of registrant as specified in its charter)

Delaware	2834	20-1915083
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

2301 Dupont Drive, Suite 525
Irvine, CA 92612
(949) 476-1100
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Mark Selawski, Chief Financial Officer
AtheroNova Inc.
2301 Dupont Drive, Suite 525
Irvine, CA 92612
(949) 476-1100
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

Gregory Akselrud, Esq.
Stubbs Alderton & Markiles, LLP
15260 Ventura Boulevard, 20th Floor
Sherman Oaks, California 91403
(818) 444-4500

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box: x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

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

Large accelerated filer	o	Accelerated filer	o
Non-accelerated filer	o (Do not check if smaller reporting company)	Smaller reporting company	x

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Unit (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fee
Common Stock, par value $0.0001 per share	486,722	$30.00	$14,601,660.00	$1,041.10
Common Stock, par value $0.0001 per share, issuable upon conversion of convertible promissory notes	3,817,596	$30.00	$114,527,880.00	$8,165.84
TOTAL	4,304,318	$30.00	$129,129,540.00	$9,206.94

(1) In the event of a stock split, stock dividend, or other similar transaction involving the Registrant's common stock, in order to prevent dilution, the number of shares registered shall automatically be increased to cover the additional shares in accordance with Rule 416(a) under the Securities Act.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, using the average of the high and low prices as reported on the OTC Bulletin Board on June 28, 2010 (accounting for a 1-for-200 reverse stock split).

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Subject to Completion, Dated June 29, 2010

ATHERONOVA INC.

4,304,318 Shares

Common Stock

_____

This prospectus relates to the offer and sale from time to time of up to 4,304,318 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 June 23, 2010, the last reported sales price of our common stock on the OTC Bulletin Board was $41.00 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.

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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 _____

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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. 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 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	4,304,318 shares by the selling stockholders
Common stock outstanding before this offering	22,680,927 shares
Common stock to be outstanding after this offering	22,680,927 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 22,680,927 shares of our common stock outstanding as of June 23, 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 June 23, 2010, with a weighted average exercise price of approximately $0.28 per share;
- 549,498 shares of our common stock issuable upon the exercise of stock options outstanding as of June 23, 2010, with an exercise price of approximately $0.22 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 June 23, 2010, at a conversion price of approximately $0.39 and
- 4,362,964 additional shares of common stock reserved for issuance under our 2010 Stock Incentive Plan, as of June 23, 2010.

Summary Financial Data

As of March 31, 2010, we had an accumulated deficit of $419,531. We incurred operating losses of $32,633 and $3,163 for the fiscal quarters ended March 31, 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 March 31, 2010

we had approximately $123,734 in cash and cash equivalents and a working capital deficit of approximately $90,855 compared to approximately $53,314 in cash and cash equivalents and a working capital deficit of approximately $62,586 at March 31, 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, 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 June 23, 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 June 23, 2010, there were outstanding:

- 22,680,927 shares of common stock held by approximately 20 stockholders of record;
- options to purchase 549,498 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 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 June 23, 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 June 23, 2010, there were outstanding options exercisable to purchase shares of our common stock, as follows:

- 549,498 shares at an exercise price of approximately $0.22 per share, which will expire on January 7, 2017.

At June 23, 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.

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

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 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.

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 (the "Registration Rights Agreement") 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 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. If the registration statement is not timely filed, it 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.

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.

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.

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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.

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 June 23, 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

On June 23, 2010, the closing sales price of our common stock as reported on the OTCBB was $41.00 per share (accounting for the 1-for-200 reverse stock split). As of June 23, 2010, there were approximately 20 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 remain 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.

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.

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 months ended March 31, 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.

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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.

Three Months Ended March 31, 2010 Compared with Three Months Ended March 31, 2009

Revenue

AtheroNova Operations did not recognize any revenue for the three months ended March 31, 2010 and 2009, respectively.

Cost of Sales

AtheroNova Operations did not recognize any revenue for the three months ended March 31, 2010 and 2009, therefore, did not record any cost of sales in those three-month periods, respectively.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were $32,633 and $3,163 for the three months ended March 31, 2010 and 2009, respectively.

Interest Income, Net

Interest income declined to $6 in the three months ended March 31, 2010 compared to $108 in the three months ended March 31, 2009 due to a decline in cash held in an interest earning saving account.

Liquidity and Capital Resources

Net cash provided by operating activities was $961 and $24,954 in the years ended December 31, 2009 and 2008, respectively. The decrease in the amount of cash provided was largely due to increasing balances in accounts payables.

Net cash used in operating activities the three months ended March 31, 2010 was $230,770 due to the operating loss and the cancellation of the Note payable to related parties, which was a non-cash transaction. Net cash provided in operations in the three months ended March 31, 2009 was $14,268 due to the operating loss.

Net cash used by investing activities was $214,284 and $158,584 in calendar years 2009 and 2008, respectively as the Company continued to use funds to develop and solidify its intellectual property position.

Net cash used by investing activities was $1,042 and $52,323 in the three months ended March 31, 2010 and 2009, respectively as the Company purchased equipment in the current year and used funds to develop intellectual property in 2009.

Net cash provided by financing activities was $150,000 and $225,000 in calendar years 2009 and 2008, respectively. Cash provided by financing activities in both years include funds raised by AtheroNova Operations from working capital stock sale activity. In 2009, professional services with a value of $50,000 were provided in exchange for common stock.

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Net cash provided by financing activities was $327,500 and $0 in the three months ended March 31, 2010 and 2009 respectively. Cash provided by financing activities in 2010 include funds raised by AtheroNova Operations from working capital stock sale activity in the amount of $225,000 and compensation for professional services in exchange for common stock in the amount of $102,500. No financing activity occurred in the three months ended March 31, 2009.

AtheroNova Operations has suffered recurring losses from operations and has an accumulated deficit of $385,945 and $373,622 in calendar years 2009 and 2008, respectively. As a development stage company, we are in need of generating significant cash resources to achieve our future strategic plan. We consequently consummated the Capital Raise Transaction on May 13, 2010. Part of the cost of the Capital Raise Transaction include costs associated with becoming and remaining a public company and filing and maintaining Registration Statements necessary to comply with our covenants in the Capital Raise Transaction. Even with the proceeds we generated from the Capital Raise Transaction, we anticipate that our existing cash and cash equivalents will not be sufficient to fund our business needs for more than 15 months and expect to have to raise significant additional capital. Our ability to continue our operations may prove to be more expensive than we currently anticipate and we may incur significant additional costs and expenses in connection therewith.

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.

Off-Balance Sheet Arrangements

AtheroNova Operations currently does not have any off-balance sheet arrangements or financing activities with special purpose entities.

Critical Accounting Policies and Estimates

This Management's Discussion and Analysis of Financial Condition and Results of Operations section discusses AtheroNova Operations' financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. To prepare these financial statements, management must make estimates and assumptions that affect the reported amounts of assets and liabilities. These estimates also affect its reported revenues and expenses. 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 may differ from these estimates under different assumptions or conditions. The following represents a summary of AtheroNova Operations' critical accounting policies, defined as those policies that it believes are the most important to the portrayal of its financial condition and results of operations and that require management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effects of matters that are inherently uncertain.

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.

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), AtheroNova Operations 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, AtheroNova Operations 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. AtheroNova Operations' 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 its products under development will continue. Either of these could result in future impairment of long-lived asset.

Common Stock and Common Stock Warrants

AtheroNova Operations uses the fair value recognition provision of ASC 718, "Compensation-Stock Compensation," which requires AtheroNova Operations 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. AtheroNova Operations uses the Black-Scholes option pricing model to calculate the fair value of any equity instruments on the grant date. AtheroNova Operations 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.

Recent Accounting Pronouncements

Note 2 to AtheroNova Operations' financial statements for the years ended December 31, 2009 and 2008 sets forth certain accounting pronouncements that are applicable to its 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 October 15, 2007, Z&Z Nevada entered into an employment agreement with Mr. Gardner to assure his continued service to the company, which we assumed pursuant to the Merger. The agreement runs for a term of 3 years, expiring on October 15, 2010. The agreement provides for a base salary of not less than $150,000 per year in the first year following the receipt by the company of $2,000,000 in operating funds, $170,000 per year in the second year following such event and $190,000 per year in the third year following such event. The agreement provides for payment of 50% of each aforementioned amount in the event of his inability to serve in his position due to mental or physical incapacitation. The agreement cannot be terminated for any other reason than fraud, misappropriation, embezzlement or willful misconduct or because of any violation of the agreement regarding confidentiality and protection of company secrets.

We are in current negotiations with Mr. Gardner regarding a new contract in anticipation of his prior commitment to serve as CEO of PhyGen LLC until the end of calendar 2010. It is anticipated that he will share executive management duties for our company and AtheroNova Operations with Mr. Selawski during that time.

On January 7, 2010, Z&Z Nevada and AtheroNova Operations entered into two agreements with Mr. Selawski. The first was a consulting contract with Z&Z Nevada, which we assumed pursuant to the Merger, under which he was to be paid $5,000 per month until such time as the company raises $1,000,000 in operating funds. Concurrent with this agreement, Mr. Selawski was awarded a stock grant of 5,000 shares of AtheroNova Operations' common stock which were converted into 11,215 shares of our common stock in connection with the Merger. Upon closing of the Capital Raise Transaction, the second agreement commenced under which Mr. Selawski will receive $144,000 per year, subject to annual review by our board of directors. He is also eligible to receive up to 10% of his annual compensation as a bonus. Under this agreement Mr. Selawski will be an "at will" employee and can be terminated with or without cause with 30 days notice. On March 6, 2010, Mr. Selawski was granted stock options to purchase up to 245,000 shares of AtheroNova Operations' common stock at a purchase price of $0.50 per share. We assumed these options in the Merger which now entitle Mr. Selawski 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.

We are in current negotiations with Mr. Selawski regarding a new contract in anticipation of his assumption of additional duties with us and AtheroNova Operations due to Mr. Gardner's prior commitment to serve as full-time President of PhyGen LLC until the end of calendar 2010.

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. Members of our board of directors may be paid their expenses, if any, of attendance at a meeting of our board of directors, and may be paid a fixed sum for attendance at each meeting of our board of directors or a stated salary as a director. 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.

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 June 23, 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 and (iv) each selling stockholder.

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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 June 23, 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 Fund I, L.P., Europa International, Inc. and MKM Opportunity Master Fund, Ltd., 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 22,680,927 shares of our common stock outstanding on June 23, 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.

	Number of Shares Beneficially Owned Prior to Offering				Number of Shares Beneficially Owned After Offering		
Name of Beneficial Owner	Number	Percentage of Shares Outstanding		Number of Shares Being Offered	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.	6,078,122	26.8	%	--	6,078,122	26.8	%
Boris Ratiner, M.D. (1)	2,915,704	12.1	%	--	2,915,704	12.1	%
Chaim Davis	--	--		--	--	--	
Gary Freeman	--	--		--	--	--	
All directors and executive officers as a group (2)	12,163,085	50.4	%	--	12,163,085	50.4	%
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. (3) 12400 Ventura Blvd., Ste. 327 Studio City, CA 91604	2,152,159	8.8	%	1,515,893	636,266	2.6	%
Europa International, Inc. (4) 1114 Avenue of the Americas	2,152,159	8.8	%	1,515,893	636,266	2.6	%

45th Floor New York, NY 10036							
MKM Opportunity Master Fund, Ltd. (5) c/o MKM Capital Advisors 1515 Broadway, 11th Fl. New York, NY 10036	1,908,798	7.8	%	1,272,532	636,266	2.6	%
TOTAL:	24,454,323	81.9	%	4,304,318	20,150,005	83.5	%

* Less than 1%

(1) Includes 1,457,852 shares of our common stock that may be acquired pursuant to the exercise of warrants within 60 days of June 23, 2010.

(2) Includes 1,457,852 shares of our common stock that may be acquired pursuant to the exercise of warrants within 60 days of June 23, 2010.

(3) 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 June 23, 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.

(4) 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 June 23, 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.

(5) 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 June 23, 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.

Changes in Control.

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

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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 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 the noteholder.

In connection with Landbank's sale to each of Europa and Woodman Management Corporation, the predecessor in interest to W-Net ("Woodman"), of 198,278 shares of our common stock, the 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 Note, except that each Replacement Note provided that the noteholder would advance up to $250,000. At the Closing, we converted all outstanding indebtedness under the 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.

AtheroNova Operations

On October 15, 2007, Z&Z Nevada entered into an employment agreement with Mr. Gardner to assure his continued service to the company, which we assumed pursuant to the Merger. The agreement runs for a term of 3 years, expiring on October 15, 2010. The agreement provides for a base salary of not less than $150,000 per year in the first year following the receipt by the company of $2,000,000 in operating funds, $170,000 per year in the second year following such event and $190,000 per year in the third year following such event. The agreement provides for payment of 50% of each aforementioned amount in the event of his inability to serve in his position due to mental or physical incapacitation. The agreement cannot be terminated for any other reason than fraud, misappropriation, embezzlement or willful misconduct or because of any violation of the agreement regarding confidentiality and protection of company secrets.

We are in current negotiations with Mr. Gardner regarding a new contract in anticipation of his prior commitment to serve as CEO of PhyGen LLC until the end of calendar 2010. It is anticipated that he will share executive management duties for our company and AtheroNova Operations with Mr. Selawski during that time.

On January 7, 2010, Z&Z Nevada and AtheroNova Operations entered into two agreements with Mr. Selawski. The first was a consulting contract with Z&Z Nevada, which we assumed pursuant to the Merger, under which he was to be paid $5,000 per month until such time as the company raises $1,000,000 in operating funds. Concurrent with this agreement, Mr. Selawski was awarded a stock grant of 5,000 shares of AtheroNova Operations' common stock which converted into 11,215 shares of our common stock in connection with the Merger. Upon the closing of the Capital Raise Transaction, the second agreement commenced under which Mr. Selawski will receive $144,000 per year, subject to annual review by our board of directors. He is also eligible to receive up to 10% of his annual compensation as a bonus. Under this agreement Mr. Selawski will be an "at will" employee and can be terminated with or without cause with 30 days notice. On March 6, 2010, Mr. Selawski was granted stock options to purchase up to 245,000 shares of AtheroNova Operations' common stock at a purchase price of $0.50 per share. We assumed these options in the Merger which now entitle Mr. Selawski 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.

We are in current negotiations with Mr. Selawski regarding a new contract in anticipation of his assumption of additional duties with us and AtheroNova Operations due to Mr. Gardner's prior commitment to serve as full-time President of PhyGen LLC until the end of calendar 2010.

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 and to keep the registration statement continuously effective until the earlier of the date on which (a) all such shares have been publicly sold by the Purchasers or (b) the date that all of such shares have been registered for resale pursuant to a registration statement on Form S-3 (the "Effectiveness Period"). The Registration Rights Agreement provides that if (i) we do not file a registration statement on or before July 12, 2010, (ii) a registration statement is not declared effective on or prior to October 10, 2010 if not subject to a full review or November 9, 2010 if subject to a full review, or the date on which our management and the SEC resolve any applicable comments or inquiries, or (iii) after its effective date, such registration statement ceases to remain continuously effective and available to the holders of such shares at any time prior to the expiration of the Effectiveness Period for an aggregate of more than 5 consecutive trading days or for more than an aggregate of 20 trading days in any 12-month period (which need not be consecutive), then we must pay each Purchaser on the date of such event, and for each month thereafter that such event continues, an amount in cash as partial relief for damages equal to 1% of the aggregate Purchase Price paid by such Purchaser pursuant to the Securities Purchase Agreement for any securities then held by such Purchaser. 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.

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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.

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

	March 31, 2010 (Unaudited)	December 31, 2009
ASSETS		
Current Assets:		
Cash	$123,734	$28,047
Total current assets	123,734	28,047
Equipment, net	955	-
Intellectual property rights	572,867	572,867
Total Assets	697,557	600,914
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable and accrued expenses	$214,589	$211,859
Total current liabilities	214,589	211,859
Commitments and Contingencies		
Stockholders' Equity:		
Common stock, par value $0.001 per share, 20,000,000 shares authorized; 9,873,050 and 9,218,050 shares issued and outstanding at March 31, 2010 and December 31, 2009, respectively	9,873	9,218
Additional paid-in capital	892,626	565,782
Deficit accumulated during the development stage	(419,531)	(385,945)
Total stockholders' equity	482,968	189,055
Total Liabilities and Stockholders' Equity	$697,557	$600,914

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 three Months Ended March 31, 2010 and 2009
And for the period from December 13, 2006 (Inception) through March 31, 2010

	Three Months ended March 31, 2010	Three Months ended March 31, 2009	December 13, 2006 (Inception) through March 31, 2010
Revenues:	$ -	$ -	$ -
Expenses:			
General and administrative	32,633	3,163	420,268
Loss from operations:	(32,633)	(3,163)	(420,268)
Interest income	6	108	1,696
Provision for income taxes	959	-	959
Net loss:	$ (33,586)	$ (3,055)	$ (419,531)
Net loss per share attributable to commons shares – Basic and Diluted:	$ (0.00)	$ (0.00)	-
Weighted average number of shares outstanding:	9,583,050	8,918,050	-

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

Z&Z Medical Holdings, Inc.
(A Development Stage Company)
Statements of Cash Flows
For the Three Months Ended March 31, 2010 and 2009
and for the period December 13, 2006 from (Inception) through March 31, 2010

	For the three months ended March 31, 2010	2009	December 13, 2006 (Inception) through March 31, 2010
Operating Activities:			
Net loss	$(33,586)	$(3,055)	$(419,531)
Adjustments to reconcile net income to net cash (used) provided by operating activities:			
Depreciation and amortization	87	-	87
Changes in operating assets and liabilities			
Accounts payable and accrued expenses	(197,271)	17,323	14,589
Net Cash (Used) Provided by Operating Activities	(230,770)	14,268	(404,855)
Investing Activities:			
Equipment	(1,042)	-	(1,042)
Acquisition of intellectual property	-	(52,323)	(372,868)
Net Cash Used in Investing Activities	(1,042)	(52,323)	(373,910)
Financing Activities:			
Proceeds from issuance of common stock	327,500	-	902,500
Net Cash Provided by Financing Activities	327,500	-	902,500
Net Increase in Cash	95,688	(38,056)	123,734
Cash - Beginning of Period	28,047	91,370	-
Cash - End of Period	$123,734	$52,314	$123,734
Supplemental Cash Flow Disclosures:			
Cash paid during the period for income taxes	$959	$-	$959
Supplemental Disclosures of Non Cash Investing and Financing Transactions:			
Common stock issued in lieu of compensation	$102,500	$-	$102,500
Common stock issued to founders	$-	$-	$200,000
Notes payable related parties issued in exchange for intellectual property	$(200,000)	-	$-
Notes payable related parties issued in lieu of expense reports	$-	$-	$100,000

See accompanying notes, which are an integral part of 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" and/or "Z&Z") 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.

On March 26, 2010, we signed an agreement of merger with Trist Holding, Inc. an OTCBB "shell" company traded under the symbol TRHI. Under the terms of the agreement, a reverse merger will take place whereby the operations of our Company will become the operations of the merged company. The stockholders of Z & Z will receive approximately 98% of the total outstanding shares of the merger company. The officers of Z & Z will become the officers of the merged company and three members of our Board of Directors will become directors of the merged company. Once merged, Trist will change its name to AtheroNova, Inc. to more accurately reflect the healthcare emphasis of the Company.

Concurrent with the merger, a senior convertible debt placement of $1.5 million will be closed with KOM Capital Management. The debt carries an interest rate of 2.5% per annum and is not due and payable until maturity or upon conversion of the underlying debt, and is payable in cash or common stock. The debt matures 4 years from the date of issuance if not converted into common stock prior to that date. The debt is convertible at $0.39 per share, with the total debt representing 3,817,596 shares of the company's common stock. If the full debt is outstanding for the full term and is paid in common stock, there will be an additional 381,762 shares issued. As part of the debt placement, warrants to purchase common stock are also issued to the debt holders. The warrants are exercisable at $0.39 per share and allow for purchase of 1,908,798 shares of our common stock and have an automatic cashless conversion feature if not exercised prior to expiration, which is 4 years after closure of the debt placement.

Both transactions closed on May 13, 2010, please see Subsequent Events Footnote 9.

(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.

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 equipment and patents, along with the variables used to calculate

the valuation of stock options and warrants using the Black-Scholes option valuation model. Actual results could differ from those estimates.

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

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 March 31, 2010 and 2009, 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 March 31, 2010, 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.

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”. 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 three months ended March 31, 2010 and 2009, respectively, as the Company is still in the development stage.

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

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 the Company's long-lived assets.

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.

Stock Based Compensation

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.

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

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. 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.

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.

For the three months ended March 31, 2010 and 2009, we excluded any effect of the 1,845,000 and 450,000 outstanding options and 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.

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

(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 March 31, 2010, and 2009, 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.

(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 three months ended March 31, 2010 and 2009, the Company issued 450,000 and 0 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 three months ended March 31, 2010 and 2009 of $225,000 and $0, 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. Warrants issued in connection with the subscription agreements were 450,000 and 0 in the three months ended March 31, 2010 and 2009, respectively.

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.

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

As of March 31, 2010, there are warrants to purchase 1,600,000 shares of the Company's common stock outstanding with expiration dates ranging from February 2013 through March 2015.

Shares underlying warrants issued:	March 31, 2010	March 31, 2009
Beginning balance	650,000	450,000
Shares granted	950,000	-
Ending balance	1,600,000	450,000

(5) Stock-Based Compensation

The Company's 2010 Equity Incentive Plan (the "Plan"), which is not yet received stockholder-approval, permits the grant of share options and shares to its employees and affiliates for up to 4,362,964 shares of common stock. The Company believes that such awards better align the interests of its employees and affiliates with those of its stockholders. Option awards are generally granted with an exercise price that approximates the market price of the Company's stock at the date of grant.

The Company has granted and issued the stock options in the financial statements as stockholder approval is nothing more than an administrative matter, consistent with ASC 718, "Stock Compensation."

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.

The fair value of each option award is estimated on the date of grant using the Black-Scholes option valuation model that uses the assumptions noted in the following table. Because the Black-Scholes option valuation model incorporate ranges of assumptions for inputs, those ranges are disclosed. Expected volatilities are based on implied volatilities from traded options on the companies in the industry that are very similar to Z&Z, and other factors. The Company uses historical data of reference companies to estimate option exercise and employee termination within the valuation model. The expected term of options granted is derived from estimates and represents the period of time that options granted are expected to be outstanding. The risk-free rate for periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant. Assumptions used to calculate the fair value of the options issued was as follows:

	Three months ended March 31, 2010
Expected life in years	3-7
Stock price volatility	100% to 263%
Risk free interest rate	1.62
Expected dividends	None
Forfeiture rate	0 %

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Z&Z Medical Holdings, Inc.
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Notes to Financial Statements

A summary of option activity as of March 31, 2010 and changes during the three months ended presented below:

	Shares	Weighted Exercise Price	Remaining Contractual Term
Outstanding - January 1, 2010	-	$ -	-
Shares granted	245,000	0.50	7
Exercised	-	-	-
Forfeited	-	-	-
Outstanding – March 31, 2010	245,000	$ 0.50	7
Exercisable – March 31, 2010	-	-	-

There were no options exercised during the three months ended March 31, 2010 and 2009. There is approximately $1,880 of unvested compensation at March 31, 2010.

(6) Income Taxes

The provision for income taxes for the periods ended March 31, 2010, and 2009, was as follows (using a 42.8 percent effective Federal and state income tax rate):

	2010	2009
Current Tax Provision:		
Federal and state-		
Taxable income	$ -	$ -
Total current tax provision	$ -	$ -
Deferred Tax Provision:		
Federal and state-		
Loss carryforwards	$ (14,375)	$ (1,308)
Valuation allowance	14,375	1,308
Total deferred tax provision	$ -	$ -

The Company had deferred income tax assets as of March 31, 2010, and 2009, as follows:

	2010	2009
Loss carryforwards	$ (82,143)	$ (42,456)
Less - valuation allowance	82,143	42,456
Total net deferred tax assets	$ -	$ -

As of March 31, 2010 and 2009, respectively, the Company had net operating loss carryforwards for income tax reporting purposes of approximately $82,143 and $42,456 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.

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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 March 31, 2010 and 2009.

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 March 31, 2010.

(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. Effective March 22, 2010, Mr. Sandoval resigned all positions with the company, effective immediately.

Mr. Gardner has signed an amended contract that will pay him $144,000 per year effective upon closure of the Trist merger agreement. Mr. Selawski, our Chief Financial Officer, has also executed an amended contract that will pay him $144,000 per year upon closure of the Trist merger agreement.

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 $190,150 has been paid on the contract.

(8) Related Party Transactions

The Company had previously executed Notes Payable totaling $200,000 to two directors of the Company for contribution of certain intellectual property. On March 21, 2010, the Company and the note holders agreed to cancellation of the obligation without recourse. The disinterested members of the Board of Directors ratified this action.

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Notes to Financial Statements

(9) 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 April 23, 2010, the Board approved an amendment to all subscription warrants setting the pre-merger price at $0.50 per share and making them immediately exercisable. The respective expiration dates remain unchanged.

May 13, 2010, the Company completed its reverse merger transactions with Trist Holdings, Inc. (“Trist”), 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 a new symbol on the OTC Bulletin Board in the coming days.

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.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. Other Expenses of Issuance and Distribution.

The Purchasers 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. The following table itemizes the expenses in connection with the offering. All the amounts shown are estimates except the SEC registration fee.

	Amount
Registration fee – SEC	$12,275.91
Legal fees and expenses	$11,000.00
Accounting fees and expenses	$1,187.50
Miscellaneous expenses	$5,536.59
Total	$30,000.00

ITEM 14. Indemnification of Directors and Officers.

The Delaware General Corporation Law and certain provisions of our certificate of incorporation, as amended, and bylaws under certain circumstances provide for indemnification of our officers, directors and controlling persons against liabilities which they may incur in such capacities.

In general, any officer, director, employee or agent may be indemnified against expenses, fines, settlements or judgments arising in connection with a legal proceeding to which such person is a party, if that person's actions were in good faith, were believed to be in our best interest, and were not unlawful. Unless such person is successful upon the merits in such an action, indemnification may be awarded only after a determination by independent decision of our board of directors, by legal counsel, or by a vote of the stockholders, that the applicable standard of conduct was met by the person to be indemnified.

The circumstances under which indemnification is granted in connection with an action brought on our behalf is generally the same as those set forth above; however, with respect to such actions, indemnification is granted only with respect to expenses actually incurred in connection with the defense or settlement of the action. In such actions, the person to be indemnified must have acted in good faith and in a manner believed to have been in our best interest, and have not been adjudged liable for negligence or misconduct.

Indemnification may also be granted pursuant to the terms of agreements which may be entered in the future or pursuant to a vote of stockholders or directors. The provision cited above also grants us the power to purchase and maintain insurance which protects our officers and directors against any liabilities incurred in connection with their service in such a position, and such a policy may be obtained by us.

We do not have any indemnification agreements with any of our directors or executive officers.

A stockholder's investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees regarding which indemnification by us is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable.

ITEM 15. Recent Sales of Unregistered Securities.

AtheroNova

On May 13, 2010, in connection with the Merger we converted $540,984 of outstanding indebtedness into 90,166 shares (18,032,810 shares on a pre-reverse stock split basis) of our common stock, issued 88,575,048 shares of Super-Voting Common Stock to AtheroNova Operations' former stockholders (which converted into 22,143,771 shares of our common stock on June 23, 2010) and assumed options and warrants which were exercisable to purchase an aggregate of 1,845,000 shares of AtheroNova Operations' common stock at a per share price of $0.50 and are now exercisable to purchase 4,138,056 shares of our common stock at a per share price of approximately $0.22, and, in connection with the Capital Raise Transaction, issued the Notes and Warrants.

In connection with the above security issuances, we did not pay any underwriting discounts or commissions. None of the sales of securities described or referred to above was registered under the Securities Act. In making the sales without registration under the Securities Act, we relied upon one or more of the exemptions from registration contained in Sections 4(2) of the Securities Act, and in Regulation D promulgated under the Securities Act. No general solicitation or advertising was used in connection with the sales.

AtheroNova Operations

On March 6, 2010, AtheroNova Operations issued options to Mark Selawski to purchase 245,000 shares of AtheroNova Operations' common stock at a purchase price of $0.50 per share. We assumed these options in the Merger which now entitle Mr. Selawski 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 on January 7, 2017.

On March 6, 2010, AtheroNova Operations issued warrants to Boris Ratiner to purchase 650,000 shares of AtheroNova Operations' common stock at an exercise price of $0.50 per share. We assumed these warrants in the Merger, which now entitle Mr. Ratiner to purchase 1,457,852 shares of our common at a per share price of approximately $0.22. Such warrants are fully vested and expire on January 7, 2015.

In connection with the above security issuances, AtheroNova Operations did not pay any underwriting discounts or commissions. None of the grants of securities described above was registered under the Securities Act in reliance upon Rule 701 thereunder.

ITEM 16. Exhibits.

See attached Exhibit Index.

ITEM 17. Undertakings.

The undersigned registrant hereby undertakes to:

(1) File, during any period in which offers or sells are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Irvine, State of California, on June 29, 2010.

ATHERONOVA INC.
(Registrant)

By: /s/ Mark Selawski
Mark Selawski
Chief Financial Officer & Secretary

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints each of Thomas W. Gardner and Mark Selawski as his true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him and his name, place and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement and to file a new registration statement under Rule 461, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the foregoing, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them, or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Thomas W. Gardner Thomas W. Gardner	Chief Executive Officer and President	June 29, 2010
/s/ Mark Selawski Mark Selawski	Chief Financial Officer and Secretary	June 29, 2010
/s/ Filiberto Zadini, M.D. Filiberto Zadini, M.D.	Director	June 29, 2010
/s/ Boris Ratiner, M.D. Boris Ratiner, M.D.	Director	June 29, 2010
/s/ Chaim Davis Chaim Davis	Director	June 29, 2010

/s/ Gary Freeman Gary Freeman	Director	June 29, 2010

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
2.1	Merger Agreement by and between Trist Holdings, Inc., Z&Z Merger Corporation and Z&Z Medical Holdings, Inc., dated March 26, 2010. Incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on April 1, 2010.
3.1	Amended and Restated Certificate of Incorporation. Incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on June 25, 2010.
3.2	Amended and Restated Bylaws. Incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on June 23, 2010.
4.1	Amended and Restated Certificate of Incorporation. Incorporated by reference to Exhibit 3.1.
4.2	Amended and Restated Bylaws. Incorporated by reference to Exhibit 3.2.
4.3	2010 Stock Incentive Plan. Incorporated by reference to Exhibit B to the Definitive Information Statement on Schedule 14C (File No. 000-52315) filed with the Securities and Exchange Commission on June 3, 2010.
5.1	Opinion re legality.
10.1	Employment Agreement of Thomas W. Gardner. Incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on May 20, 2010.
10.2	Employment Agreement of Mark Selawski. Incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on May 20, 2010.
10.3	Securities Purchase Agreement dated May 13, 2010, among AtheroNova Inc., W-Net Fund I, L.P., Europa International, Inc. and MKM Opportunity Master Fund, Ltd. Incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on May 20, 2010.
10.4	Registration Rights Agreement dated May 13, 2010, among AtheroNova Inc., W-Net Fund I, L.P., Europa International, Inc. and MKM Opportunity Master Fund, Ltd. Incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on May 20, 2010.
10.5	

	Security Agreement dated May 13, 2010, among AtheroNova Inc., W-Net Fund I, L.P., Europa International, Inc. and MKM Opportunity Master Fund, Ltd. Incorporated by reference to Exhibit 10.5 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on May 20, 2010.
10.6	IP Security Agreement dated May 13, 2010, among AtheroNova Inc., W-Net Fund I, L.P., Europa International, Inc. and MKM Opportunity Master Fund, Ltd. Incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on May 20, 2010.
10.7	Form of Promissory Note. Incorporated by reference to Exhibit 10.7 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on May 20, 2010.
10.8	Form of Warrant. Incorporated by reference to Exhibit 10.8 to the Current Report on Form 8-K (File No. 000-52315) filed with the Securities and Exchange Commission on May 20, 2010.
21.1	Subsidiaries of the Registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2	Consent of Legal Counsel. Incorporated by reference to Exhibit 5.1.
24.1	Power of Attorney. Incorporated by reference to the signature page to this Registration Statement on Form S-1.