

AtheroNova Inc.
Form SC 13G
December 23, 2014

**SECURITIES
AND
EXCHANGE
COMMISSION
Washington,
D.C. 20549**

**SCHEDULE
13G**

Under the
Securities
Exchange Act of
1934

(Amendment
No.)*

AtheroNova, Inc.
(Name of Issuer)

Common Stock,
\$0.0001 par
value
(Title of Class of
Securities)

047438304
(CUSIP Number)

October 28, 2014
(Date of event
which requires
filing of this
statement)

Check the
appropriate box
to designate the
rule pursuant to
which this
Schedule 13G is
filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

(Page 1 of 9
Pages)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAMES OF REPORTING PERSONS
	Empery Asset Management, LP
2	CHECK THE APPROPRIATE BOX IF A MEMBER (b) " OF A GROUP
3	SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION
	Delaware
5	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH
	SOLE VOTING POWER
6	666,600 shares of Common Stock
7	833,250 shares of Common Stock issuable upon exercise of Warrants (See Item 4)* SOLE DISPOSITIVE POWER
8	SHARED DISPOSITIVE POWER

666,600 shares
of Common
Stock

833,250 shares
of Common
Stock issuable
upon exercise
of Warrants
(See Item 4)*

AGGREGATE
AMOUNT
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON

9 666,600 shares of
Common Stock

833,250 shares of
Common Stock
issuable upon exercise
of Warrants (See Item
4)*

10 CHECK BOX
IF THE
AGGREGATE
AMOUNT IN ..
ROW (9)
EXCLUDES
CERTAIN
SHARES
PERCENT OF
CLASS

11 REPRESENTED BY
AMOUNT IN ROW
(9)

12 7.57% (See Item 4)*
TYPE OF
REPORTING
PERSON

PN

* As more fully described in Item 4, these reported securities are subject to a 4.99% blocker and the percentage set forth in row (11) gives effect to such blocker. However, as more fully described in Item 4, the securities reported in rows (6), (8) and (9) show the number of shares of Common Stock that would be issuable upon full exercise of such

reported securities and do not give effect to such blocker. Therefore, the actual number of shares of Common Stock beneficially owned by such Reporting Person, after giving effect to such blocker, is less than the number of securities reported in rows (6), (8) and (9).

1	NAMES OF REPORTING PERSONS
	Ryan M. Lane
2	CHECK THE APPROPRIATE BOX IF A MEMBER (b) " OF A GROUP
3	SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION
	United States
5	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH
	SOLE VOTING POWER
6	666,600 shares of Common Stock
	833,250 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
7	SOLE DISPOSITIVE POWER
8	SHARED DISPOSITIVE POWER
	666,600 shares of Common

Stock

833,250 shares
of Common
Stock issuable
upon exercise
of Warrants
(See Item 4)*

AGGREGATE
AMOUNT
BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON

9 666,600 shares of
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833,250 shares of
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AMOUNT IN ..
ROW (9)
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SHARES
PERCENT OF
CLASS

11 REPRESENTED BY
AMOUNT IN ROW
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12 7.57% (See Item 4)*
TYPE OF
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PERSON

IN

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reported in rows (6), (8) and (9).

1	NAMES OF REPORTING PERSONS
	Martin D. Hoe
2	CHECK THE APPROPRIATE BOX IF A MEMBER (b) " OF A GROUP
3	SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION
	United States
5	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH
	SOLE VOTING POWER
6	666,600 shares of Common Stock
	833,250 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
7	SOLE DISPOSITIVE POWER
8	SHARED DISPOSITIVE POWER
	666,600 shares of Common

Stock

833,250 shares
of Common
Stock issuable
upon exercise
of Warrants
(See Item 4)*

AGGREGATE
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BENEFICIALLY
OWNED BY EACH
REPORTING
PERSON

9 666,600 shares of
Common Stock

833,250 shares of
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of Warrants (See Item
4)*

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IF THE
AGGREGATE
AMOUNT IN ..
ROW (9)
EXCLUDES
CERTAIN
SHARES
PERCENT OF
CLASS

11 REPRESENTED BY
AMOUNT IN ROW
(9)

7.57% (See Item 4)*

12 TYPE OF
REPORTING
PERSON

IN

* As more fully described in Item 4, these reported securities are subject to a 4.99% blocker and the percentage set forth in row (11) gives effect to such blocker. However, as more fully described in Item 4, the securities reported in rows (6), (8) and (9) show the number of shares of Common Stock that would be issuable upon full exercise of such reported securities and do not give effect to such blocker. Therefore, the actual number of shares of Common Stock beneficially owned by such Reporting Person, after giving effect to such blocker, is less than the number of securities

reported in rows (6), (8) and (9).

Item 1(a). NAME OF ISSUER:

The name of the issuer is AtheroNova, Inc. (the "Company").

Item 1(b). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES:

The Company's principal executive offices are located at 2301 Dupont Drive, Suite 525, Irvine California 92612.

Item 2(a). NAME OF PERSON FILING:

This statement is filed by the entities and persons listed below, who are collectively referred to herein as "Reporting Persons," with respect to the shares of Common Stock (as defined in Item 2(d) below) of the Company:

Investment Manager

(i) Empery Asset Management, LP (the "Investment Manager"), with respect to the shares of Common Stock held by, and underlying the Reported Warrants held by, certain funds to which the Investment Manager serves as investment manager, the "Empery Funds").

Reporting Individuals

(ii) Mr. Ryan M. Lane ("Mr. Lane"), with respect to the shares of Common Stock held by, and underlying the Reported Warrants held by, the Empery Funds.

(iii) Mr. Martin D. Hoe ("Mr. Hoe"), with respect to the shares of Common Stock held by, and underlying the Reported Warrants held by, the Empery Funds.

The Investment Manager serves as the investment manager to each of the Empery Funds. Each of the Reporting Individuals is a Managing Member of Empery AM GP, LLC (the "General Partner"), the general partner of the Investment Manager.

Item 2(b). ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE:

The address of the business office of each of the Reporting Persons is:

1 Rockefeller Plaza, Suite 1205

New York, New York 10020

Item 2(c). CITIZENSHIP:

Citizenship is set forth in Row 4 of the cover page for each Reporting Person hereto and is incorporated herein by reference for each such Reporting Person.

Item 2(d). TITLE OF CLASS OF SECURITIES:

Common Stock, \$0.0001 par value (the "Common Stock")

Item 2(e). CUSIP NUMBER:

047438304

**Item IF THIS STATEMENT IS FILED PURSUANT TO RULES 13d-1(b) OR 13d-2(b) OR (c), CHECK
3. WHETHER THE PERSON FILING IS A:**

- (a) " Broker or dealer registered under Section 15 of the Act,
- (b) " Bank as defined in Section 3(a)(6) of the Act,
- (c) " Insurance Company as defined in Section 3(a)(19) of the Act,
- (d) " Investment Company registered under Section 8 of the Investment Company Act of 1940,
- (e) " Investment Adviser registered under Section 203 of the Investment Advisers Act of 1940,
- (f) " Employee Benefit Plan or Endowment Fund in accordance with Rule 13d-1(b)(1)(ii)(F),
- (g) " Parent Holding Company or control person in accordance with Rule 13d-1(b)(1)(ii)(G),
- (h) " Savings Association as defined in Section 3(b) of the Federal Deposit Insurance Act,
- (i) " Church Plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940,
- (j) " A non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J);
- (k) " Group, in accordance with Rule 13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J), please

specify the type of institution: _____

Item 4. OWNERSHIP.

The information as of the date of the event which requires filing of this statement required by Items 4(a) – (c) is set forth in Rows 5 – 11 of the cover page for each Reporting Person hereto and is incorporated herein by reference for each such Reporting Person. The percentage set forth in Row 11 of the cover page for each Reporting Person is based on 8,809,139 shares of Common Stock issued and outstanding as of October 28, 2014, as represented in the Company's Prospectus Supplement filed pursuant to Rule 424(b)(4), filed with the Securities and Exchange Commission on October 29, 2014, which includes the 4,000,000 shares of Common Stock issued by the Company pursuant to, and as disclosed in, such Prospectus Supplement.

Pursuant to the terms of the reported warrants (the "Reported Warrants"), the Reporting Persons cannot exercise any of the Reported Warrants if the Reporting Persons would beneficially own, after any such exercise, more than 4.99% of the outstanding shares of Common Stock (the "Blocker"), and the percentage set forth in Row 11 of the cover page for each Reporting Person gives effect to the Blocker. Consequently, as of the date of the event which requires the filing of this statement, the Reporting Persons were not able to exercise any of the Reported Warrants due to the Blocker.

The Investment Manager, which serves as the investment manager to the Empery Funds, may be deemed to be the beneficial owner of all shares of Common Stock held by, and underlying the Reported Warrants held by, the Empery Funds. Each of the Reporting Individuals, as Managing Members of the General Partner of the Investment Manager with the power to exercise investment discretion, may be deemed to be the beneficial owner of all shares of Common Stock held by, and underlying the Reported Warrants held by, the Managed Account and the Empery Fund. The foregoing should not be construed in and of itself as an admission by any Reporting Person as to beneficial ownership of shares of Common Stock owned by another Reporting Person. Each of the Reporting Individuals hereby disclaims any beneficial ownership of any such shares of Common Stock.

Item 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.

Not applicable.

Item 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON.

Not applicable.

Item 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY.

Not applicable.

Item 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP.

Not applicable.

Item 9. NOTICE OF DISSOLUTION OF GROUP.

Not applicable.

Item 10. CERTIFICATION.

Each of the Reporting Persons hereby makes the following certification:

By signing below each Reporting Person certifies that, to the best of its knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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SIGNATURES

After reasonable inquiry and to the best of our knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

DATED: December 23, 2014

EMPERY ASSET MANAGEMENT, LP
By: EMPERY AM GP, LLC, its General Partner

By: /s/ Ryan M. Lane
Name: Ryan M. Lane
Title: Managing Member

/s/ Ryan M. Lane
Ryan M. Lane

/s/ Martin D. Hoe
Martin D. Hoe

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EXHIBIT 1

JOINT ACQUISITION STATEMENT
PURSUANT TO RULE 13d-1(k)

The undersigned acknowledge and agree that the foregoing statement on Schedule 13G is filed on behalf of each of the undersigned and that all subsequent amendments to this statement on Schedule 13G shall be filed on behalf of each of the undersigned without the necessity of filing additional joint acquisition statements. The undersigned acknowledge that each shall be responsible for the timely filing of such amendments, and for the completeness and accuracy of the information concerning him or it contained therein, but shall not be responsible for the completeness and accuracy of the information concerning the others, except to the extent that he or it knows or has reason to believe that such information is inaccurate.

DATED: December 23, 2014

EMPERY ASSET MANAGEMENT, LP
By: EMPERY AM GP, LLC, its General Partner

By: /s/ Ryan M. Lane
Name: Ryan M. Lane
Title: Managing Member

/s/ Ryan M. Lane
Ryan M. Lane

/s/ Martin D. Hoe
Martin D. Hoe