ARRHYTHMIA RESEARCH TECHNOLOGY INC /DE/
Form S-8
November 09, 2004
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As filed with the Securities and Exchange Commission on November 9, 2004

Registration No. 333-_____

U.S. SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-8
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Arrhythmia Research Technology, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**72-0925679**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

25 Sawyer Passway, Fitchburg, Massachusetts 01420; (978) 345-5000

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

_____

Arrhythmia Research Technology, Inc. 2001 Stock Option Plan

(Full Title of the Plan)

_____

David A. Garrison
Chief Financial Officer
Arrhythmia Research Technology, Inc.
25 Sawyer Passway
Fitchburg, Massachusetts 01420

(Name and Address of Agent For Service)

(978) 345-5000

(Telephone Number, Including Area Code, of Agent For Service)

Copies To:
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CALCULATION OF REGISTRATION FEE

Title Of Securities To Be Registered	*Amount To Be Registered*	*Proposed Maximum Offering Price Per Share*	*Proposed Maximum Aggregate Offering Price*	*Amount Of Registration Fee*
Common Stock, $.01 par value	**3,000 shares (1)**	**$ 26.70 (2)**	**$ 80,100 (2)**	**$ 100.00**

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, an indeterminate amount of additional shares of Common Stock, which may become issuable pursuant to the anti-dilution provisions of the 2001 Stock Option Plan are also being registered hereunder. The shares being registered consist of the following shares which may be reoffered and resold from time to time: (a) 3,000 shares previously issued pursuant to exercise of options granted under the 2001 Stock Option Plan; (b) 197,000 shares which may be issued pursuant to options granted or which may be granted pursuant to the 2001 Stock Option Plan, which shares were previously registered on Form S-8 (File No. 333-111326) and which registration statement is incorporated herein by reference.

(2) Estimated solely for the purpose of calculating the registration fee, pursuant to Rule 457(c) and (h)(1) under the Securities Act of 1933, as amended. The price per share and aggregate offering price are based on the average of high and low prices of Registrant s Common Stock as reported on the American Stock Exchange on November 5, 2004.

EXPLANATORY NOTE

This Registration Statement registers for reoffer and resale 3,000 shares of common stock of Arrhythmia Research Technology, Inc. (the Company) previously issued upon exercise of options granted pursuant to the Company s 2001 Stock Option Plan. Prior to the filing of this Registration Statement, such shares held by the selling stockholder were deemed to be restricted securities within the meaning of Rule 144 promulgated under the Securities Act of 1933, as amended. This Registration Statement also registers for reoffer and resale an additional 197,000 shares of common stock which may be issued pursuant to options granted or which may be granted under the Company s 2001 Stock Option Plan. The Company hereby incorporates by reference the contents of its Registration Statement on Form S-8, File No. 333-111326, filed with the Commission on December 18, 2003, registering the offer and sale of the 197,000 shares of Common Stock pursuant to the 2001 Stock Option Plan.

The materials which follow Part I, up to but not including the page beginning Part II of this Registration Statement, constitutes a reoffer prospectus, prepared in accordance with the requirements of Part I of Form S-3, in accordance with General Instruction C of Form S-8. The reoffer prospectus may be utilized for reofferings and resales of up to 3,000 restricted shares of common stock acquired by the selling stockholder prior to the date of the reoffer prospectus and up to 197,000 shares of common stock to the extent acquired by certain affiliates of the Company pursuant to the 2001 Stock Option Plan.

PART I

ITEM 1. PLAN INFORMATION

The Company will send or give document(s) containing the information specified in Part I to participants as specified by Rule 428(b)(1). These documents are not required to be filed as part of this Registration Statement.

ITEM 2. REGISTRANT INFORMATION AND EMPLOYEE PLAN ANNUAL INFORMATION

Upon written or oral request by a participant in the 2001 Stock Option Plan or the 2003 Employee Stock Bonus Plan, the Company will provide any of the documents incorporated by reference into the Section 10(a) prospectus, without charge. Any document required to be delivered to the participants pursuant to Rule 428(b) will also be delivered without charge.

Prospectus

Arrhythmia Research Technology, Inc.

200,000 Shares Of Common Stock, Par Value $0.01 Per Share,
Issuable Pursuant To The 2001 Stock Option Plan

This Prospectus covers up to 200,000 shares (the Shares) of common stock, par value $.01 par share (the Common Stock), of Arrhythmia Research Technology, Inc., a Delaware corporation (the Company). Such Shares (a) have been or may be acquired by certain persons, who may be deemed to be affiliates of the Company, including employees, officers, directors and consultants to the Company (the Selling Shareholders), pursuant to options granted or which may be hereafter granted under the Arrhythmia Research Technology, Inc. 2001 Stock Option Plan of the Company (the 2001 Plan) or (b) are deemed to be restricted securities under Rule 144. Shares acquired pursuant to the 2001 Plan prior to the effective date of a registration statement covering securities issued under the 2001 Plan are restricted securities whether or not held by affiliates of the Company. In connection with such resales or reoffers for sale, certain employees, officers, directors of the Company and the brokers through whom such Shares may be sold may be deemed to be underwriters as that term is defined in Section 2(11) of the Securities Act of 1933, as amended (the Securities Act). See The Offering.

The Company s securities are currently traded on the American Stock Exchange (AMEX) under the symbol HRT. On November 5, 2004 the closing sale price of the Common Stock was $26.87.

The Shares may be offered by the Selling Shareholders from time to time through or to brokers in the over-the-counter market or otherwise at prices acceptable to the Selling Shareholders. The Company will not receive any of the proceeds from the sale of the Shares pursuant to this Prospectus. All costs incurred in connection with the registration of the Shares are being borne by the Company. See The Offering.

**AN INVESTMENT IN THESE SECURITIES INVOLVES A HIGH DEGREE OF RISK.
SEE RISK FACTORS BEGINNING ON PAGE 6.**

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is November 9, 2004.

AVAILABLE INFORMATION

The Company is subject to the informational requirements of the Securities Exchange Act of 1934, as amended (the Exchange Act) and under those requirements, it files reports and other information with the Securities and Exchange Commission (Commission). The Commission maintains a website on the Internet that contains reports, proxy and information statements and other information regarding registrants, including our company, that file electronically with the Commission. The Commission s website address is www.sec.gov. In addition, our Exchange Act filings may be inspected and copied at the public reference facilities of the Commission located at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, DC 20549; and at the Commission s regional offices at Citicorp Center, 500 West Madison Street, Room 1400, Chicago, IL 60661, and at 233 Broadway, New York, NY 10279. Copies of the material may also be obtained upon request and payment of the appropriate fee from the Public Reference Section of the Commission located at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, DC 20549.

This Prospectus is a part of a Registration Statement on Form S-8 (together with all amendments and exhibits referred to as the Registration Statement) filed by the Company with the Commission under the Securities Act. This Prospectus omits certain of the information contained in the Registration Statement, and reference is hereby made to the Registration Statement for further information with respect to the Company and the Common Stock offered. Any statements contained herein concerning the provisions of any document filed as an exhibit to the Registration Statement or otherwise filed with the Commission are not necessarily complete, and in each instance reference is made to the copy of such document as filed. Each such statement is qualified in its entirety by such reference.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The following documents filed with the Commission are hereby incorporated by reference in this Prospectus:

We incorporate by reference the documents listed below together with any amendments thereof:

Annual Report on Form 10-KSB for the fiscal year ended December 31, 2003, filed with the Commission on March 30, 2004;
Current Report on Form 8-K filed with the Commission on February 27, 2004;
Current Report on Form 8-K filed with the Commission on March 3, 2004;
Quarterly Report on Form 10-QSB filed with the Commission on May 14, 2004;
Current Report on Form 8-K filed with the Commission on May 21, 2004 and as amended on July 21, 2004;
Current Report on Form 8-K filed with the Commission on August 13, 2004;
Quarterly Report on form 10-QSB filed with the Commission on August 16, 2004;
Current Report on Form 8-K filed with the Commission on November 3, 2004; and
The description of our common stock contained in our Registration Statement on Form 8-A, filed with the Commission on February 12, 1992, including any amendment or reports filed for the purpose of updating such description.

All reports and other documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this Prospectus and prior to the termination of this offering shall be deemed to be incorporated by reference in this Prospectus and to be part hereof from the date of filing of such reports and other documents.

You may request a copy of these filings, at no cost, by writing to David A. Garrison, Chief Financial Officer, Arrhythmia Research Technology, Inc., 25 Sawyer Passway, Fitchburg, MA 01420, or by calling him at (978) 345-5000.

Arrhythmia Research Technology

Company Overview

Arrhythmia Research Technology, Inc. (ART) was incorporated under the laws of the State of Louisiana in 1981 and reincorporated under the laws of the State of Delaware in 1987. ART is engaged in the licensing of medical software, which acquires data and analyzes electrical impulses of the heart to detect and aid in the treatment of potentially lethal arrhythmias. ART s patented products consist of signal-averaging electrocardiographic (SAECG) software. In 2002, ART completed an update to a Windows based version of its proprietary Predictor® series. Rather than restore a direct sales force, the intent is to market ART s product through licensing with original equipment manufacturers. No significant sale of the software was recorded in 2002 or 2003. Work continues to establish contracts with original equipment manufacturers for this product.

Sudden cardiac death afflicts over 400,000 individuals in the United States each year. These occurrences are due to sustained ventricular tachycardia (abnormally rapid heartbeat) or ventricular fibrillation (very fast, completely irregular heartbeat), which severely affect the capability of the heart s pumping chambers or ventricles. The electric signals that emanate from the heart are used to detect the presence of late potentials, which indicate the risk of life-threatening ventricular arrhythmias. The SAECG processes enable late potentials to be amplified and enhanced, while eliminating undesired electrical noise in these tests.

ART s wholly owned subsidiary, Micron Products, Inc. (Micron), is a manufacturer and distributor of silver plated and non-silver plated conductive resin sensors (sensors) used in the manufacture of disposable electrodes constituting a part of ECG diagnostic and monitoring instruments. Micron also acts as a distributor of metal snap fasteners (snaps), another component used in the manufacture of disposable electrodes. In 1997, Micron acquired the rights to an assembly machine, which it manufactures and sells or leases to its sensor and snap customers. Micron was incorporated in the State of Massachusetts in 1972, and is located in the same facility with ART in Fitchburg, Massachusetts. The sensors are a critical component of the signal pathway in many different types of disposable electrodes. The disposable electrodes used to capture the electric impulses of the heart and enable the analysis of late potentials require sensors which provide for an accurate, low noise signal to be transmitted to the monitoring device.

Micron is the largest of a few companies providing silver / silver-chloride sensors to the medical device industry. Micron s customers manufacture monitoring and transmitting electrodes which are utilized in a variety of bio-feedback and bio-stimulation applications including, among many others, electrocardiograms (ECG s), electroencephalograms (EEG s), electro-muscular stimulation (EMS), and thermo-electrical neural stimulation (TENS). Micron's New England Molders division manufacturers injection molded products for medical, electronic, industrial and consumer applications.

The address of our principal executive offices is 25 Sawyer Passway, Fitchburg, Massachusetts 01420, and our telephone number is (978) 345-5000. Our web site is www.arthrt.com. We have not incorporated by reference into this prospectus the information on our web site, and you should not consider it to be a part of this document. Our web site address is included in this document as an inactive textual reference only.

Products

Revenues

The following table sets forth for the periods specified, the revenue derived from the products of ART and its subsidiary Micron (collectively, the Company):

	Revenues for the Years Ended December 31,			
	2003	**%**	**2002**	**%**
Canada	$ 3,128,515	41	$ 3,133,890	44
Continental Europe	1,704,150	22	1,239,172	17
United States	1,149,181	15	1,115,941	16
United Kingdom	1,142,132	15	1,430,459	20
Pacific Rim	471,261	6	230,917	3
Other	82,128	1	41,686	--
Total	$ 7,677,367	100%	$ 7,192,065	100%

Sensors and Snaps

Silver Plated Sensors

Micron is a manufacturer and distributor of silver-plated and non-silver plated conductive resin sensors for use in the manufacture of disposable electrodes for ECG diagnostic, monitoring and related instrumentation. The disposable electrode has proven to be more reliable than the reusable electrodes available in the market. Additionally, disposable electrodes are easier, and less expensive to use as compared to reusable electrodes, which require sterilization after each use. The type of sensor manufactured by Micron consists of a molded plastic substrate plated with a silver/silver chloride surface, which is a highly sensitive conductor of electrical signals. Silver/silver chloride-plated disposable electrodes are utilized in coronary care units, telemetry monitoring units and for other monitoring purposes. In addition to the traditional ECG tests, disposable electrodes incorporating Micron s sensor are used in connection with stress tests and a Holter monitor.

Micron also manufactures sensors and conductive plastic studs used in the manufacture of radiotranslucent electrodes. The radiotranslucent electrodes are virtually invisible to X-rays and are preferred in some applications such as nuclear medicine, cath labs, ICU/CCU and certain stress and Holter procedures. Custom designed sensors are manufactured for specific unique applications in the EEG, EMG or TENS markets. Micron s strength in design and low cost manufacturing support the growth by our customers into unique niche medical treatment and electrophysiological monitoring.

Metal Snap Fasteners

Metal snap fasteners are used to attach the disposable electrode to the lead wires of an ECG machine. Micron purchases the metal snap fasteners for resale from a supplier and performs additional quality control tests, repackaging and inventory stocking for its customers who can purchase the snaps along with Micron s sensors.

Other Molded Components

In 2003, leveraging the capabilities of the injection molding department, Micron began the process of expanding into other custom molded precision high volume component parts. Revenues began to be realized in September of 2004. With interest from other companies in the same industry, sales in high quality molded products will diversify the existing product lines while utilizing unused manufacturing capacity.

On May 7, 2004, the Company completed the acquisition of substantially all of the assets of Shrewsbury Molders, Inc., formerly known as New England Molders, Inc. With the addition of the active customer base and the additional custom injection molding capacity, other molded products had an immediate positive impact on revenues.

High Speed Electrode Assembly Machine

Sensor and snap application machines are used by disposable electrode manufacturers in the assembly of sensors and snaps. Manufacturing, leasing, selling, and maintenance parts for service to medical sensor and snap application machines provide Micron with a complimentary product to sell to existing sensor and snap customers.

Signal-Averaging Electrocardiographic (SAECG) Products

Predictor®7

The Predictor® 7 software is a Windows® compatible version of Arrhythmia Research Technology s analytical program for the detection of Late Potentials. Predictor® 7 utilizes the unique, patented Bi-directional, Four-Pole Butterworth Filtering technique defined as the Standard by the joint AHA/ACC/ESC task force on Signal-Averaging Electrocardiography[1]. All clinically accepted measurement criteria are provided: total QRS duration, duration of the QRS under 40 µV, the RMS voltage of the last 40 msec of the QRS and the noise level. Graphical output of the analysis is presented both on screen and in hard copy. Predictor® 7 also incorporates additional signal processing capabilities for clinical research. The IntraSpect (tm) module permits detection of ventricular late potentials in patients with bundle branch block. Early Potential Analysis software using P-wave triggered SAECG analysis is also available as a research tool for assessing patients at risk for arterial fibrillation and flutter.

Windows® is a registered trademark of Microsoft Corporation

[1] *AHA/ACC/ESC Policy Statement: Standards for the Analysis of Ventricular Late Potentials Using High Resolution or Signal-Averaged Electrocardiography: A Statement by a Task Force Committee of the European Society of Cardiology, the American Heart Association and the American College of Cardiology. JACC Vol. 17, No. 5, April 1991:999-1006*

FORWARD-LOOKING STATEMENTS

In our effort to make the information in this prospectus more meaningful, this prospectus contains both historical and forward-looking statements within the meaning of Section 27A of the Securities Act, Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act), and information relating to Arrhythmia that is based on management s exercise of business judgment as well as assumptions made by and information currently available to management.

Any forward looking statements made herein are based on current expectations of the Company that involves a number of risks and uncertainties and should not be considered as guarantees of future performance. These statements are made under the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995. Forward looking statements may be identified by the use of words such as expect, anticipate, believe, intend, plans, predict, or will . The factors that could cause actual results to differ materially include: impact of com products and pricing, product demand and market acceptance risks, the presence of competitors with greater financial resources than the Company, product development and commercialization risks, changing economic conditions in developing countries, and an inability to arrange additional debt or equity financing.

Although the Company believes that our expectations are based on reasonable assumptions, we can give no assurance that our expectations will materialize. Many factors could cause actual results to differ materially from our forward looking statements. Several of these factors include, in addition to those contained in Factors that may affect future operating results, without limitation:

- our ability to finance our business;
- our ability to maintain our current pricing model and/or decrease our cost of sales;
- a stable interest rate market and/or a stable currency rate environment in the world, and specifically the countries we are doing business in or plan to do business in;
- continued availability of supplies or materials used in manufacturing at the current prices;

adverse regulatory developments in the United States or any other country we plan to do business in;
a new entrance of competitive products in our markets;
no adverse publicity related to our products or the Company itself;
no adverse claims relating to our intellectual property;
the adoption of new, or changes in, accounting principles;
the passage of new, or changes in, legislation or legal proceedings;
our ability to maintain compliance with the AMEX requirements for continued listing of our common stock;
the costs inherent with complying with new statutes and regulations applicable to public reporting companies, such as the Sarbanes-Oxley Act of 2002;
our ability to efficiently integrate future acquisitions, if any;
and other new lines of business that the Company may enter in the future;
other risks referenced from time to time elsewhere in this report and in our filings with the SEC.

The Company is under no obligation and does not intend to update, revise or otherwise publicly release any revisions to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of any unanticipated events.

RISK FACTORS

In addition to the other information in this prospectus, the following factors should be considered in evaluating the Company and its business. The risks and uncertainties described below are not the only ones facing the Company. Additional risks and uncertainties that the Company does not presently know or currently deems immaterial may also impair the Company s business, results of operations and financial condition.

The Company s operating results may fluctuate significantly as a result of a variety of factors.

Our operating results may fluctuate significantly in the future as a result of a variety of factors, many of which are outside of our control. These factors include: the level of demand for the products that we may develop; our ability to attract and retain personnel with the necessary strategic, technical and creative skills required for effective operations; the amount and timing of expenditures by customers; the amount and timing of capital expenditures and other costs relating to the expansion of our operations; government regulation and general economic conditions. As a strategic response to changes in the competitive environment, we may from time to time make certain pricing, service, technology or marketing decisions or business or technology acquisitions that could have a material adverse effect on our quarterly results. Due to all of these factors, our operating results may fall below the expectations of securities analysts, stockholders and investors in any future period.

If trade secrets are not kept confidential, the secrets may be used by others to compete against us.

Micron relies on unpatented trade secrets to protect its proprietary process. There are no assurances that others will not independently develop or acquire substantially equivalent technologies or otherwise gain access to our proprietary process. Ultimately the meaningful protection of such unpatented proprietary technology cannot be guaranteed. The Company relies on confidentiality agreements with its employees. Remedies for any breach by a party of these confidentiality agreements may not be adequate to prevent such actions. Failure to maintain trade secret protection, for any reason, could have a material adverse effect on us.

Dependence on a limited number of customers.

In the fiscal years 2003 and 2002, 68% and 75%, respectively of the Company s revenues was derived from three customers. The loss of any one or more of these customers would have an immediate significant adverse effect on our financial results. In an effort to maintain this customer base, more favorable terms than might otherwise be agreed to could be granted. Currently, the Company generally does not receive purchase volume commitments extending beyond several months. Large corporations can shift focus away from a need for our product with little or no warning.

The vast majority of revenues have historically been derived from the sale of a single product.

In fiscal years 2003 and 2002, the Company derived 94% and 92%, respectively, of its income from medical electrode sensors for use in disposable electrodes. While the technology in electrode sensors has been used for many years, there is no assurance that a new patented or unpatented technology might not replace the existing market for disposable electrode sensors. Any substantial technological advance that eliminates our product will have a material adverse effect on our operating results. There can be no assurance our efforts to diversify will sufficiently mitigate the effects of possible loss of electrode sensor sales.

The Company is subject to stringent environmental regulations.

The Company is subject to a variety of Federal, state and local requirements governing the protection of the environment. These environmental regulations include those related to the use, storage, handling, discharge and disposal of toxic or otherwise hazardous materials used in or resulting from the Company s manufacturing processes. Failure to comply with environmental law could subject the Company to substantial liability or force us to significantly change our manufacturing operations. In addition, under some of these laws and regulations, the Company could be held financially responsible for remedial measures if its properties are contaminated, even if it did not cause the contamination.

The Company may make acquisitions of companies, products or technologies that may disrupt the business and divert management s attention, adversely impacting our results of operations and financial condition.

The Company may make acquisitions of complementary companies, products or technologies from time to time. Any acquisitions will require the assimilation of the operations, products and personnel of the acquired businesses and the training and motivation of these individuals. Management may be unable to maintain and improve upon the uniform standards, controls, procedures and policies if we fail in this integration. Acquisitions may cause disruptions in operations and divert management s attention from day-to-day operations, which could impair our relationships with current employees, customers and strategic partners. We may also have to, or choose to, incur debt or issue equity securities to pay for any future acquisitions. The issuance of equity securities for an acquisition could be substantially dilutive to our stockholders holdings. In addition, our profitability may suffer because of such acquisition-related costs or amortization costs for other intangible assets. If management is unable to fully integrate acquired businesses, products, technologies or personnel with existing operations, we may not receive the intended benefits of such acquisitions. Other than as disclosed herein or disclosed since December 31, 2003, we are not party to any agreements, written or oral, for the acquisition of any company, product or technology.

If the Company is unable to keep up with rapid technological changes, our processes, products or services may become obsolete and unmarketable.

The medical device and medical software industries are characterized by technological change over time. Although we attempt to expand our technological capabilities in order to remain competitive, discoveries by others may make our processes or products obsolete. If we cannot compete effectively in the marketplace, our potential for profitability and financial position will suffer.

The Company could become involved in litigation over intellectual property rights.

The medical device industry has been characterized by extensive litigation regarding patents and other intellectual property rights. Litigation, which would likely result in substantial cost to us, may be necessary to enforce any patents issued or licensed to us and/or to determine the scope and validity of others proprietary rights. In particular, our competitors and other third parties hold issued patents and are assumed to hold pending patent applications, which may result in claims of infringement against us or other patent litigation. The Company also may have to participate in interference proceedings declared by the United States Patent and Trademark Office, which could result in substantial cost, to determine the priority of inventions.

A product liability suit could adversely affect our operating results.

The testing, manufacture, marketing and sale of medical devices of our customers entail the inherent risk of liability claims or product recalls. If our customers are involved in a lawsuit, it is foreseeable that the Company would also be named. Although the Company maintains product liability insurance, coverage may not be adequate. Product liability insurance is expensive, and in the future may not be available on acceptable terms, if at all. A successful product liability claim or product recall could have a material adverse effect on our business, financial condition, and ability to market product in the future.

Provisions in our charter documents could prevent or frustrate shareholders attempts to replace or remove current management.

Our Certificate of Incorporation provides for staggered terms for the members of the Board of Directors. The Certificate provides that the Board of Directors shall be divided into three classes, each such class to be as nearly as possible equal in number of directors to each other class. Each director shall serve a term of three years. At stockholders meetings only those directors comprising one of the three classes shall have completed their term and be subject to re-election or replacement.

In addition, our Certificate of Incorporation authorizes the issuance of serial blank check preferred stock with such designations, rights, and preferences as may be determined by our Board of Directors. Accordingly, the Board of Directors may, without shareholder approval, issue shares of preferred stock with dividend, liquidation, conversion, voting, or other rights that could adversely affect the voting power or other rights of the holders of our common stock. Blank check preferred stock could also be issued to discourage, delay, or prevent a change in our

control, although we do not currently intend to issue any additional series of our preferred stock.

Classifying the Board of Directors and the issuance of blank check preferred stock are traditional anti-takeover measures installed to present obstacles to takeovers. These provisions of our Certificate of Incorporation make it difficult for a majority shareholder to gain control of the Board of Directors and of the Company because, for instance, classification of the Board would delay the time within which a majority shareholder could obtain effective control of the Board. Such provisions may be beneficial to the Company s management and its Board in a hostile tender offer and may have an adverse impact on shareholders who may want to participate in such a tender offer, or who may want to replace the Board of Directors.

Provisions in our by-laws provide for indemnification of officers and directors, which could require us to direct funds away from our business and products.

Our by-laws provide for indemnification of officers and directors. We may be required to pay judgments, fines, and expenses incurred by an officer or director, including reasonable attorneys fees, as a result of actions or proceedings in which such officers and directors are involved by reason of being or having been an officer or director. Funds paid in satisfaction of judgments, fines and expenses may be funds we need for the operation of our business and the development of our products, thereby affecting our ability to attain profitability. This could cause our stock price to drop**.**

THE OFFERING

This Prospectus relates to the Shares which have been or may be acquired by certain employees, officers, directors and consultants to the Company named below who may be deemed affiliates of the Company or who hold restricted stock pursuant to the exercise by them of options granted pursuant to the terms of the 2001 Plan. The address of each Selling Shareholder is c/o Arrhythmia Research Technology, Inc., 25 Sawyer Passway, Fitchburg, MA 01420. The 2001 Plan was adopted by the Board of Directors on March 21, 2001, and subsequently approved by the Company s shareholders on October 5, 2001. Under the terms of the 2001 Plan, no awards may be granted after the ten-year anniversary of the 2001 Plan, except for awards granted pursuant to commitments prior to the ten-year anniversary.

Beneficial ownership calculations are determined in accordance with the rules of the SEC and are based on 2,655,822 Common Stock shares outstanding as of October 15, 2004. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock that are presently exercisable or that will become exercisable within 60 days of the date of this prospectus are deemed outstanding for such person, but are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

Selling Stockholders

The following table sets forth certain information as of the date of this Prospectus with respect to the Selling Stockholders:

Name of Selling Shareholder	Shares Beneficially Owned	% of Outstanding Shares	Shares Owned After Completion of this Offering [2]	% of Outstanding Shares After Completion of this Offering [2]
James E. Rouse, Chief Executive Officer	21,000 [1]	*	-0-	-0-
David A. Garrison, Chief Financial Officer	25,000 [3]	*	-0-	-0-

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* Less than 1%.

(1) Includes 6,000 shares issuable pursuant to options granted under the 2001 Plan, which are exercisable within 60 days.

(2) Assumes the issuance to and sale by the Selling Shareholder of all of the Shares.

(3) Includes 5,000 shares issuable pursuant to options granted under the 2001 Plan, which are exercisable within 60 days.

Shares covered by this Prospectus may be reoffered and resold from time to time by each Selling Shareholder through brokers on the AMEX or otherwise at prices acceptable to the Selling Shareholder. To the Company s knowledge, no specific brokers or dealers have been designated by any Selling Shareholder nor has any agreement been entered into in respect of brokerage commissions or for the exclusive sale of

any securities, which may be offered pursuant to this Prospectus. Alternatively, the Selling Shareholder may from time to time offer the Shares through underwriters, dealers or agents, which may receive compensation in the form of underwriting discounts, concessions or commissions from the Selling Shareholder and/or the purchasers of the Shares for whom they may act as agents. The Selling Shareholder and any underwriters, dealers or agents that participate in the distribution of the Shares may be deemed to be underwriters under the Securities Act and any profit on the sale of the Shares by them and any discounts, commissions or concessions received by any such underwriters, dealers or agents might be deemed to be underwriting discounts and commissions under the Securities Act.

Under applicable rules and regulations under the Exchange Act, any person engaged in a distribution of any of the shares may not simultaneously engage in market activities with respect to the common stock for the applicable period under Regulation M prior to the commencement of such distribution. In addition and without limiting the foregoing, the selling security owners will be governed by the applicable provisions of the Securities and Exchange Acts, and the rules and regulations thereunder, including without limitation Rules 10b-5 and Regulation M, which provisions may limit the timing of purchases and sales of any of the shares by the selling stockholders. Furthermore, under Regulation M, persons engaged in a distribution of securities are prohibited from simultaneously engaging in market making and certain other activities with respect to such securities for a specified period of time prior to the commencement of such distributions subject to specified exceptions or exemptions. All of the foregoing may affect the marketability of our securities.

The Company will pay all of the fees and expenses incident to the registration of the Shares (other than any fees or expenses of any counsel retained by the Selling Shareholder and any out-of-pocket expenses incurred by the Selling Shareholder or any person retained by the Selling Shareholder in connection with the registration of the Shares) and fees and expenses of compliance with state securities or blue sky laws and commissions. The expenses payable by the Company are estimated to be approximately $5,000.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and certain provisions of the Certificate of Incorporation, as amended, and the By-Laws is a summary and is qualified in its entirety by reference to the provisions of the Certificate of Incorporation and the By-Laws, copies of which are filed with the SEC as exhibits to this Registration Statement, of which this prospectus forms a part.

Our authorized capital stock consists of 10,000,000 shares of common stock, $0.01 par value and 2,000,000 shares of preferred stock, par value $1.00 per share. As of October 15, 2004, there were outstanding:

2,655,822 shares of common stock; and

43,000 shares issuable upon exercise of options issued pursuant to our employee benefit plans.

Common Stock

We are authorized to issue 10,000,000 shares of common stock, $0.01 par value per share. Subject to preferences that may be applicable to any preferred stock outstanding at the time, the holders of outstanding shares of common stock are entitled to receive dividends out of assets legally available therefore at such times and in such amounts as the Board of Directors may from time to time determine. Each shareholder is entitled to one vote for each share of common stock held on all matters submitted to a vote of shareholders. Cumulative voting for the election of directors is not authorized.

The common stock is not entitled to preemptive rights and is not subject to conversion or redemption. Upon liquidation, dissolution or winding up of Arrhythmia, the remaining assets legally available for distribution to shareholders, after payment of claims of creditors and payment of liquidation preferences, if any, on outstanding preferred stock, are distributable ratably among the holders of the common stock and any participating preferred stock outstanding at that time. Each outstanding share of common stock is fully paid and nonassessable.

Preferred Stock

The Certificate of Incorporation authorizes us to issue 2,000,000 shares of serial blank check preferred stock, $1.00 par value per share. Blank check preferred stock allows the Board of Directors to create one or more series of preferred stock, and to designate the rights, privileges, restrictions, preferences and limitations of any given series of preferred stock. Accordingly, the Board of Directors may, without stockholder approval, issue shares of preferred stock with dividend, liquidation, conversion, voting or other rights that could adversely affect the voting power or other rights of the holders of our common stock. Blank check preferred stock could also be issued to discourage, control, although we have no present intent to issue any additional series of our preferred stock. The Board of Directors ability to issue blank check preferred stock serves as a traditional anti-takeover measure installed to present obstacles to takeovers. This provision of our Certificate of Incorporation makes it difficult for a majority shareholder to gain control of the Company and, therefore, may be beneficial to the Company s management and its

Board in a hostile tender offer and may have an adverse impact on shareholders who may want to participate in such a tender offer. Also, the issuance of preferred stock with voting and conversion rights could materially and adversely affect the voting power of the holders of the common stock and may have the effect of delaying, deferring or preventing a change in control of the Company.

As of the date of this prospectus there are no shares of preferred stock issued and outstanding.

TRANSFER AGENT

The transfer agent for our common stock is Continental Stock Transfer & Trust Co., 17 Battery Place, New York, NY 10004.

USE OF PROCEEDS

The Company will not receive any of the proceeds from the sale of the Shares. All proceeds from the sale of the Shares will be for the account of the Selling Shareholders, as described above. See The Offering and Plan of Distribution.

PLAN OF DISTRIBUTION

Shares covered by this Prospectus may be reoffered and resold from time to time by each Selling Shareholder through brokers on the AMEX or otherwise at prices acceptable to the Selling Shareholder. To the Company s knowledge, no specific brokers or dealers have been designated by any Selling Shareholder nor has any agreement been entered into in respect of brokerage commissions or for the exclusive sale of any securities, which may be offered pursuant to this Prospectus. Alternatively, the Selling Shareholder may from time to time offer the Shares through underwriters, dealers or agents, which may receive compensation in the form of underwriting discounts, concessions or commissions from the Selling Shareholder and/or the purchasers of the Shares for whom they may act as agents. The Selling Shareholder and any underwriters, dealers or agents that participate in the distribution of the Shares may be deemed to be underwriters under the Securities Act and any profit on the sale of the Shares by them and any discounts, commissions or concessions received by any such underwriters, dealers or agents might be deemed to be underwriting discounts and commissions under the Securities Act.

Any securities covered by this Prospectus that qualify for sale pursuant to Rule 144 under the Securities Act may be sold under that Rule rather than pursuant to this Prospectus. There can be no assurance that the Selling Shareholders will sell any or all of the Shares of common stock offered hereunder.

LEGAL MATTERS

Certain legal matters in connection with the Shares have been passed upon for the Company by Dilworth Paxson LLP, Washington, D.C.

EXPERTS

The financial statements incorporated by reference in this Prospectus have been audited by BDO Seidman, LLP, an independent registered public accounting firm, to the extent and for the periods set forth in their report, incorporated herein by reference and are incorporated herein by reference in reliance upon such report given upon the authority of said firm as experts in auditing and accounting.

No dealer, salesman or any other person has been authorized in connection with this offering to give any information or to make any representations other than those contained in this Prospectus. The Prospectus does not constitute an offer or a solicitation in any jurisdiction to any person to whom it is unlawful to make such an offer or solicitation. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstances, create an implication that there has been no change in the circumstances of the Company or the facts herein set forth since the date hereof

ARRHYTHMIA RESEARCH TECHNOLOGY, INC.

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PROSPECTUS

Arrhythmia Research Technology, Inc. has filed with the Securities and Exchange Commission, Washington, D.C., a Registration Statement under the Securities Act with respect to the Shares offered hereby. This Prospectus omits certain information contained in the Registration Statement. The information omitted may be obtained from the Securities and Exchange Commission upon payment of the regular charge therefore.

November 9, 2004

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The SEC allows us to incorporate by reference information from other documents that we file with them, which means that we can disclose important information by referring to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information.

We incorporate by reference the documents listed below together with any amendments thereof:

Annual Report on Form 10-KSB for the fiscal year ended December 31, 2003, filed with the SEC on March 30, 2004;
Current Report on Form 8-K filed with the SEC on February 27, 2004;
Current Report on Form 8-K filed with the SEC on March 3, 2004;
Quarterly Report on Form 10-QSB filed with the SEC on May 14, 2004;
Current Report on Form 8-K filed with the SEC on May 21, 2004 as amended on July 21, 2004;
Current Report on Form 8-K filed with the SEC on August 13, 2004;
Quarterly Report on Form 10-QSB filed with the SEC on August 16, 2004;
Current Report on Form 8-K filed with the Commission on November 3, 2004; and
The description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on February 12, 1992, including any amendment or reports filed for the purpose of updating such description.

We also incorporate by reference additional documents that may be filed with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the sale of all of the shares covered by this prospectus. These include periodic reports, such as Annual Reports on Form 10-KSB, Quarterly Reports on Form 10-QSB and Current Reports on Form 8-K, as well as proxy statements.

We will provide to you, without charge, upon your written or oral request, a copy of any or all of the documents that we incorporate by reference, including exhibits. Please direct requests to: Arrhythmia Research Technology, Inc., 25 Sawyer Passway, Fitchburg, Massachusetts 01420, Attn: Corporate Secretary; (978) 345-5000.

Item 4. Description of Securities

NA.

Item 5. Interests of Named Experts and Counsel

NA.

Item 6. Indemnification of Officers and Directors

Section 145 of the General Corporation Law of the State of Delaware grants each corporation organized thereunder, such as the Company, the power to indemnify its directors and officers against liability for certain of their acts. Section 102(b)(7) of the Delaware Corporation Law permits a provision in the certificate of incorporation of each corporation organized thereunder eliminating or limiting, with specified exceptions, the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. The Company s certificate of incorporation contains this provision. The foregoing statements are subject to the detailed provisions of Sections 145 and 102(b)(7) of the Delaware General Corporation Law.

Article VI of the Company s By-Laws provides that the Company will indemnify its officers, directors and employees to the fullest extent permitted by the Delaware General Corporation Law in connection with proceedings with which any such person is involved by virtue of his or her status as an officer, director, employee or agent. The Company maintains directors and officers liability insurance, including a reimbursement policy in favor of the Company.

The By-Laws may require Arrhythmia, among other things, to indemnify directors or officers against certain liabilities that may arise by reason of their status or service as directors (other than liabilities resulting from willful misconduct of a culpable nature), to advance expenses to them as they are incurred, provided that they undertake to repay the amount advanced if it is ultimately determined by a court that they are not entitled to indemnification, and to obtain and maintain directors and officers insurance if available on reasonable terms.

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

Item 7. Exemption from Registration Claimed

The issuance of the restricted Shares being offered by the Form S-3 resale prospectus were deemed exempt from registration under the Securities Act in reliance upon Section 4(2) of the Securities Act or Regulation D promulgated thereunder, or Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions by an issuer not involving a public offering or transactions pursuant to compensatory benefit plans and contracts relating to compensation as provided under such Rule 701. The recipients of securities in each such transaction represented their intention to acquire the securities for investment only and not with a view to sell or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates and instruments issued in such transactions. All recipients had adequate access, through their relationship to the Registrant, to information about the Registrant.

Item 8. Exhibits

Exhibit Number	Description
4.1[(1)]	Arrhythmia Research Technology, Inc. 2001 Stock Option Plan
5.1	Opinion of Dilworth Paxson LLP.
23.1	BDO Seidman, LLP Consent.
23.2	Dilworth Paxson LLP Consent (included in Exhibit 5.1).
24.1	Power of Attorney is contained on the signature page of this Registration Statement.

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(1) Filed as Exhibits to the Company's Registration Statement on Form S-8 (File No. 333-111326) incorporated herein by reference.

Item 9. Undertakings

a. The undersigned Registrant will:

(1) File, during any period in which it offers or sells securities, a post-effective amendment to this registration statement to include any additional or changed material information on the plan of distribution.

(2) For determining liability under the Securities Act, treat each post-effective amendment as a new registration statement of the securities offered, and the offering of the securities at that time to be the initial *bona fide* offering thereof.

(3) File a post-effective amendment to remove from registration any of the securities that remain unsold at the end of the offering.

b. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement 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.

c. Insofar as indemnification for liabilities arising under the Securities Act 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 Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Fitchburg, Massachusetts, on the 9th day of November, 2004.

ARRHYTHMIA RESEARCH TECHNOLOGY, INC.
(Registrant)

By: /s/ David A. Garrison
David A. Garrison
Chief Financial Officer

POWER OF ATTORNEY

Each of the undersigned officers and directors of the Registrant, Arrhythmia Research Technology, Inc., whose signature appears below, hereby appoints David A. Garrison and James E. Rouse, jointly and individually, as attorneys-in-fact for the undersigned with full power of substitution, to execute in his or her name and on behalf of such person, individually, and in each capacity stated below, this Registration Statement on Form S-8 and one or more amendments (including post-effective amendments) to this Registration Statement and any related registration statement under Rule 462(b) under the Securities Act of 1933 as the attorney-in-fact shall deem appropriate, and to file any such amendment (including exhibits thereto and other documents in connection herewith) to this Registration Statement on Form S-8 or Rule 462(b) registration statement with the Securities and Exchange Commission, granting unto said attorneys-in-fact, 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 premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, or either of them, 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/ James E Rouse James E. Rouse	President, Chief Executive Officer and Director	November 9, 2004
/s/ E.P. Marinos E. P. Marinos	Chairman of the Board and Director	November 9, 2004
/s/ Russell C. Chambers Russell C. Chambers	Director	November 9, 2004
/s/ Julius Tabin Julius Tabin	Director	November 9, 2004
/s/ Paul F. Walter Paul F. Walter	Director	November 9, 2004
/s/ David A. Garrison David A. Garrison	Chief Financial Officer	November 9, 2004

EXHIBIT INDEX

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23.2	Dilworth Paxson LLP Consent (included in Exhibit 5.1)
24.1	Power of Attorney is contained on the signature page of this Registration Statement.

(1) Filed as exhibits to the Company s Registration Statement on Form S-8 (File No. 333-11326) incorporated herein by reference.