SIGNALIFE, INC.
Form SB-2/A
December 12, 2007

As filed with the Securities and Exchange Commission on December 12, 2007

Commission File No. 333 146126

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Amendment No. 2
to
Form SB-2

Registration Statement Under The Securities Act Of 1933

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Signalife, Inc.

(Name of small business issuer in its charter)

Delaware	**3845**	**87-0441351**
(State or other jurisdiction of incorporation or organization)	**(Primary Industrial Code)**	**(I.R.S. Employer Identification No.)**

Lowell T. Harmison
President and Chief Operating Officer

4705 Laurel Canyon Blvd., Suite 203
Studio City, California 91607
(818) 232-4560
(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)
(Name, address, including zip code, and telephone number, including area code, of agent for service of process)

Copies to

John M. Woodbury, Jr., Esq.
7251 Owensmouth Ave, Suite 7
Canoga Park, California 91303
(818) 337-2602

Approximate date of proposed sale to 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 of 1933, 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 of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering: o __

If delivery of this prospectus is expected to be made pursuant to Rule 434, please check the following box: o

Calculation of Registration Fee

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Offering Price Per Share	Proposed Aggregate Offering Price	Amount of Registration Fee
Common stock	4,375,730	$1.33(3)	$ 5,819,720.90	$ 178.67(5)
Common stock (2)	1,000,000	$1.00(4)	$ 1,000,000.00	$ 30.70(5)
Common stock (2)	500,000	$2.00(4)	$ 1,000,000.00	$ 30.70(5)
Total	5,875,730		$ 7,819,720.90	$ 240.07

(1)

Pursuant to SEC Rule 416(a), also covers additional common shares that may be offered to prevent dilution as a result of stock splits, stock dividends or similar transactions relating to these securities.

(2)

Represents common stock reserved for issuance by the registrant with respect to the prospective exercise of common share purchase warrants at the election of the holder of those warrants.

(3)

Pursuant to SEC Rule 457(h)(1) and 457(c), the filing fee is computed upon the basis of the average of the high and low prices reported by the American Stock Exchange as of the close of market on September 6, 2007.

(4)

Pursuant to SEC Rule 457(h)(1), the filing fee is computed based upon the exercise price for the underlying options or warrants.

(5)

Previously paid in connection with the initial filing of this registration statement on September 17, 2007.

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 this registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION, DATED DECEMBER 12, 2007

Prospectus

5,875,730 Common Shares

This prospectus relates to the offer and sale by some of our shareholders during the period in which the registration statement containing this prospectus is effective of up to 5,875,730 common shares consisting of up to:

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4,375,730 currently issued and outstanding common shares; and

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1,500,000 common shares issuable by the company upon the prospective exercise of currently issued and outstanding securities purchase warrants at the election of the holder of those warrants.

This offering is not being underwritten. The common shares offered under this prospectus may be sold by the selling shareholders on the public market, in negotiated transactions with a broker-dealer or market maker as principal or agent, or in privately negotiated transactions not involving a broker or dealer. We will not receive any of the proceeds from those sales.

Our common shares trade on the American Stock Exchange under the trading symbol SGN .

Please read this prospectus carefully. It describes our company, finances, products and services. Federal and state securities laws require that we include in this prospectus all the important information that you will need to make an investment decision.

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An investment in the common shares offered for sale under this prospectus involves a high degree of risk. You should purchase our securities only if you can afford losing your entire investment.
See Risk Factors beginning on page 5 of this prospectus.

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Neither the United States Securities and Exchange Commission nor any state securities commission has approved or disapproved of the common shares offered for sale under this prospectus or the merits of that offering, or has determined that this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

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The date of this Prospectus is December 12, 2007

4705 Laurel Canyon Blvd., Suite 203, Studio City, California 91607

(818) 432-4560

The information in this prospectus is not complete and may be changed. We have filed a registration statement containing this prospectus with the Securities and Exchange Commission. The common stock offered for sale under this prospectus may not be offered for sale or sold until that registration statement is declared effective by the Securities and Exchange Commission. This prospectus is not an offer to sell the common shares and doesn t solicit an offer to purchase the common shares in any jurisdiction where this offer or sale is not otherwise permitted

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PROSPECTUS SUMMARY

This summary highlights important information about our company and business. Because it is a summary, it may not contain all of the information that is important to you. To understand this offering fully, you should read this entire prospectus and the financial statements and related notes included in this prospectus carefully, and in particular that section of this prospectus captioned *Risk Factors*. Unless the context requires otherwise, *Signalife*, *we*, *us*, *our* a similar terms refer to Signalife, Inc.

On April 11, 2003, we effected a split in our common shares on a 3:1 forward basis through the mechanism of a stock dividend. Whenever we make any reference in this prospectus to the grant or issuance of common shares or options or warrants to purchase common shares, such reference shall, for comparison purposes, be made in reference to post-split numbers and, in the case of options and warrants, exercise prices, unless we state otherwise.

The Company And Business

Signalife, Inc. is a medical device company focused on researching, developing and marketing medical devices which monitor and measure physiological signals in order to detect diseases that impact an individual s health. Physiological signals are small bioelectrical signals generated by the body.

Our initial product, the Signalife *Fidelity 100 Monitor System* or *Fidelity 100*, is a heart monitoring system that uses our proprietary Model 100 patient module to acquire, amplify and process physiological signals associated with a patient s cardiovascular system. Heart monitor systems are used in a variety of medical settings. For example, they are used to collect physiological data for electrocardiogram or ECG tests for the purpose of detecting and identifying cardiovascular disease, and also used to monitor the condition of the heart during surgical procedures. Our patient module operates using our proprietary patented signal acquisition and amplification technology, as well as Bluetooth technology which allows the acquired signals to be wirelessly transmitted to a personal computer for interpretation and storage by the physician. Our proprietary signal acquisition and amplification technology provides the capability to collect, enlarge and process physiological signals in a manner that discriminates them from ambient or background electromagnetic noise, thereby facilitating the examination of the signal data for diagnostic purposes.

The *Fidelity 100 Monitor System* is marketed as an integrated system containing all of the components the Model 100 Module, electrode lead sets, and a personal computer with monitor and printer, which could either be in a desk top or laptop configuration. The *Fidelity 100* is principally used for clinical (resting) and in-patient ambulatory applications. For example, ECG data may be instantaneously acquired, processed, amplified and transmitted to the personal computer for analysis in stationary settings, such as while conducting ECG tests in resting or in-patient ambulatory settings or during surgeries.

Our initial marketing efforts for the *Fidelity 100* since its introduction have been extremely limited to date principally due to performance issues with third-party distributors and sales agents to whom we originally delegated sales authority, our limited internal sales and marketing support functions and personnel, and the focus of prior management on other activities. We have only recently launched a company-sponsored program to aggressively market and promote the *Fidelity 100* in the United States, in which we will rely upon new senior management and directors to market our products within the United States to selected marquee hospitals and physician groups, and are re-evaluating the use of independent distributors.

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We are also currently working on a number of products using our proprietary signal acquisition and amplification technology that are in the late development stage and which we expect to introduce to market within the next year or soon thereafter. These products include the Signalife *Fidelity 200 Event Recording System* or *Fidelity 200* , the Signalife *Fidelity 300 Holder Monitor* or *Fidelity 300* , the Signalife *Fidelity 400 Intracardiac Monitor* or *Fidelity 40* and the Signalife *Cardiac Vest*.

The Signalife *Fidelity 200 Event Recording System* is a direct-to-consumer non-prescription credit card-sized heart monitoring device which has been specifically designed to be used in conjunction with monitoring centers. We anticipate that we will sell the *Fidelity 200* to consumers through retail outlets such as drug stores, retail pharmacies, and major retail discount chains. The consumer will then separately subscribe to a monitoring service that is compatible with the device. This product has recently received FDA 510(k) clearance as a class II medical device, and we are actively involved in engineering the final production version which we will commercially introduce into the market at the first available opportunity.

The *Fidelity 300* is a three-lead ambulatory Holter monitor which will be used while the patient carries out his or her daily activities away from the physicians office or hospital to collect ECG data relating to arrhythmia and other transient heart disease. Specifically, the data is acquired, processed, amplified and stored in a computer storage chip contained in the *Fidelity 300*, and then downloaded by the physician at a later date when the patient returns to the physician s office. The Fidelity 300 will allow up to thirty days of data to be recorded, satisfying physician needs for a more extensive database, unlike other Holter markets currently on the market that record only for a period of 24 to 48 hours. We anticipate a production version of this product will be completed and brought to market at the end of 2008.

The Signalife *Cardiac Vest*, developed in conjunction with the Champ Car World Series, is an extremely lightweight, close-fitting vest that will be used as a more effective, convenient and comfortable alternative for the electrode and lead sets customarily used with ambulatory cardiac monitors. The design is planned to allow a patient to use the vest on a 24/7 basis for extended periods of time, being removed only intermittently for showers, etc. We anticipate a production version of this product will be completed and brought to market at the end of 2008 at the earliest.

We are also actively pursuing other marketing alternatives. For example, we have recently successfully completed a pilot program in which patrons of a gym were tested using the *Fidelity 100* in order to detect and identify cardiovascular disease that could be triggered or exacerbated by exercise programs. We are now in the process of expanding the program to fitness facilities across the country. We are also participating in the Athletes For Life program which will focus on developing protocols to test professional and amateur athletes for cardiovascular disease and abnormalities as part of their regular training regime, and will also promote testing for impoverished communities where early detection of cardiovascular disease simply does not exist.

As of November 27, 2007, we had issued and outstanding or accrued for issuance a total of: (1) 53,372,803 common shares (as that term is defined in that section of the prospectus captioned *Description Of Equity Securities*); (2) 14,574 series A preferred shares (as that term is defined in that section of the prospectus captioned *Description Of Equity Securities*), plus an additional 40,764 unissued series A preferred shares accrued for issuance as dividends through September 30, 2007; and (3) stock purchase options and warrants entitling the holders to purchase up to 11,259,179 and 179,292 common shares and series A preferred shares, respectively, at weighted average exercise prices of $1.98 and $3.00 per share, respectively.

Our corporate offices are located at 4705 Laurel Canyon Blvd., Suite 203, Studio City, California. Our telephone number is (818) 432-4560.

Our common shares are currently quoted on the American Stock Exchange or AMEX under the symbol SGN.

The Offering

This prospectus relates to the offer and sale by some of our shareholders during the period in which the registration statement containing this prospectus is effective of up to 5,875,730 common shares consisting of up to:

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4,375,730 currently issued and outstanding common shares; and

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1,500,000 common shares issuable by the company upon the prospective exercise of currently issued and outstanding securities purchase warrants at the election of the holder of those warrants.

The outstanding common shares offered under this prospectus may be sold by the selling shareholders on the public market, in negotiated transactions with a broker-dealer or market maker as principal or agent, or in privately negotiated transactions not involving a broker or dealer. Information regarding the selling shareholders, the common shares they are offering to sell under this prospectus, and the times and manner in which they may offer and sell those shares is provided in the sections of this prospectus captioned *Selling Shareholders* , *Registration Rights* and *Plan of Distribution* . We will not receive any of the proceeds from those sales. Should the selling shareholders in their discretion exercise any of the common share purchase warrants underlying the common shares offered under this prospectus, we would, however, receive the exercise price for those warrants. The registration of common shares pursuant to this prospectus does not necessarily mean that any of those shares will ultimately be offered or sold by the selling shareholders, or that any of the common share purchase warrants underlying the common shares offered under this prospectus will be exercised.

The common shares offered for sale under this prospectus include a total of 2,956,830 common shares held by YA Global Investments, L.P. (*YA Global Investments*), and 1,500,000 common shares issuable to that investor upon exercise of common stock purchase warrants granted to that investor, in connection with a private placement that closed on August 16, 2007 pursuant to which we raised gross proceeds of $2,000,000. Also included for sale under this prospectus are 1,404,495 common shares issued to YA Global Investments as compensation for entering into a Standby Equity Distribution Agreement concurrently with the aforesaid private placement. Also included for sale under this prospectus are 14,405 common shares issued to Newbridge Securities Corporation as compensation for acting as Signalife s exclusive placement agent in connection with the aforesaid transactions. For more complete information as to the aforesaid transactions, see those sections of this prospectus captioned *Management s Discussion And Analysis Of Financial Condition And Results of Operations Liquidity And Capital Resources* and *Registration Rights* .

Summary Financial Data

The following tables summarize the statements of operations and balance sheet data for our company for the periods or as of the dates indicated, respectively:

Statement of Operations Data	Nine Months Ended September 30, 2007	Nine Months Ended September 30, 2006	Year Ended December 31, 2006	Year Ended December 31, 2005
	(unaudited)	(unaudited)		
Product Sales	$	$	$ 190,170	$
Costs of products sold	$	$	$ 42,316	$
Gross profit	$	$	$ 147,854	$
Research and development expenses	$ 1,009,011	$ 692,388	$ 2,694,958	$ 1,328,482
General and administrative expenses	$ 10,130,880	$ 7,441,667	$ 10,806,932	$ 6,224,105
Loss from operations	$ (11,139,891)	$ (8,134,055)	$ (13,354,036)	$ (7,552,587)
Other income (expense)	$ 559,539	$ 1,091,191	$ 1,637,910	$ (1,108,101)
Net loss	$ (10,580,352)	$ (7,042,864)	$ (11,716,126)	$ (8,660,688)
Basic and diluted loss per share attributable to common stockholders	$ (0.23)	$ (0.18)	$ (0.30)	$ (0.23)
Weighted average shares outstanding, basic and diluted	46,234,610	38,950,260	39,333,720	37,298,692

Balance Sheet Data:	September 30, 2007	December 31, 2006

	(unaudited)	
Current assets		
	$ 2,311,070	$ 3,644,454
Total assets		
	$ 5,099,286	$ 4,520,287
Current liabilities		
	$ 922,738	$ 1,575,668
Total liabilities		
	$ 922,738	$ 1,575,668
Total stockholders equity		
	$ 4,176,548	$ 2,944,619
Total liabilities and stockholders equity		
	$ 5,099,286	$ 4,520,287

RISK FACTORS

An investment in our common shares involves a high degree of risk and is subject to many uncertainties. These risks and uncertainties may adversely affect our business, operating results and financial condition. In such an event, the trading price for our common shares could decline substantially, and you could lose all or part of your investment. In order to attain an appreciation for these risks and uncertainties, you should read this prospectus in its entirety and consider all of the information and advisements contained in this prospectus, including the following risk factors and uncertainties.

Risks Relating To Our Business

Our limited operating history will make it difficult for you to predict our future operating results and to otherwise assess or predict the likelihood of our business success.

While we introduced our first heart monitoring product, the *Fidelity 100 Monitor System*, in late 2006, we have only recently launched a company-sponsored program to aggressively market and promote this product in the United States and have limited sales to date. Prior to the introduction of the *Fidelity 100*, we were a development stage company solely engaged in research and development activities. Our limited operating history will make it difficult, if not impossible, to predict future operating results and to assess the likelihood of our business success in considering an investment in our company.

We have nominal sales revenues to date and have accumulated losses since our inception. Our continued inability to generate revenues and profits could cause us to go out of business.

We have incurred cumulative net losses before preferred dividends available to common shareholders in the amount of $45,379,008 from our inception through September 30, 2007. We project that we will not be cash flow positive based solely on projected sales and service revenues less manufacturing, general and administrative, marketing expenses and other operating costs for an indefinite period of time. We anticipate that we will continue to incur substantial operating losses for the foreseeable future, notwithstanding any anticipated revenues we may receive in the near future.

If we are unable to raise additional working capital, we will be unable to fully fund our operations and to otherwise execute our business plan, leading to the reduction or suspension of our operations and ultimately our going out of business.

As noted in the prior risk factor, we only recently introduced our first heart monitoring product, the *Fidelity 100 Monitor System*, to market and commenced commercial sales of that product, and further anticipate that after such introduction we will continue to be cash flow negative due to our anticipated costs exceeding our anticipated revenues for an indefinite period of time. We believe that our standby equity purchase arrangement with YA Global Investments, L.P. and line of credit with SES Capital will be sufficient to continue our business for at least the next twelve months (although the standby equity purchase arrangement is subject to a number of conditions and restrictions which may limit our ability to sell common shares under that facility, including our inability to make sales to YA Global Investments to the extent such sales would increase its holdings to more than 9.99% of our outstanding common shares calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934 (the *Exchange Act*)).

Should our costs and expenses prove to be greater than we currently anticipate, or should we change our current business plan in a manner that will increase or accelerate our anticipated costs and expenses, such as through an acquisition of new products, the depletion of our working capital would be accelerated. To the extent it becomes necessary to raise additional cash in the future as our current cash and working capital resources are depleted, we will seek to raise it through the public or private sale of debt or equity securities, the procurement of advances on contracts or licenses, funding from joint-venture or strategic partners, debt financing or short-term loans, or a combination of the foregoing. We may also seek to satisfy indebtedness without any cash outlay through the private issuance of debt or equity securities. Other than our line of credit with SES Capital and the pending investment and standby equity purchase arrangement with YA Global Investments, we currently do not have any binding commitments for, or readily available sources of, additional financing. We cannot give you any assurance that we will be able to secure the additional cash or working capital we may require to continue our operations.

Even if we are able to raise additional financing, we might not be able to obtain it on terms that are not unduly expensive or burdensome to the company or disadvantageous to our existing shareholders.

Even if we are able to raise additional cash or working capital through the public or private sale of debt or equity securities, the procurement of advances on contracts or licenses, funding from joint-venture or strategic partners, debt financing or short-term loans, or the satisfaction of indebtedness without any cash outlay through the private issuance of debt or equity securities, the terms of such transactions may be unduly expensive or burdensome to the company or disadvantageous to our existing shareholders. For example, we may be forced to sell or issue our securities at significant discounts to market, or pursuant to onerous terms and conditions, including the issuance of preferred stock with disadvantageous dividend, voting or veto, board membership, conversion, redemption or liquidation provisions; the issuance of convertible debt with disadvantageous interest rates and conversion features; the issuance of warrants with cashless exercise features; the issuance of securities with anti-dilution provisions; and the grant of registration rights with significant penalties for the failure to quickly register. If we raise debt financing, we may be required to secure the financing with all of our business assets, which could be sold or retained by the creditor should we default in our payment obligations. We also might be required to sell or license our products or technologies under disadvantageous circumstances we would not otherwise consider, including granting licenses with low royalty rates and exclusivity provisions.

Our sales, marketing and distribution capabilities are currently in the initial stages of development and are limited in manpower and financial resources, which limits our ability to rapidly penetrate the markets with our products and to generate revenue growth

Our initial marketing efforts for the *Fidelity 100* since its introduction have been extremely limited to date principally due to performance issues with third-party distributors and sales agents to whom we originally delegated sales authority, our limited internal sales and marketing support functions and personnel, and the focus of prior management on other activities. We have only recently launched a company-sponsored program to aggressively market and promote this product in the United States, in which we will rely upon new senior management and directors to market our products within the United States to selected marquee hospitals and physician groups, and are re-evaluating the use of independent distributors. Going forward, we also intend to develop a more effective internal sales and marketing

team. Our ability to actively market and promote our products will require significant amounts of capital that would be diverted from other uses. The distribution of our products and consequential revenue growth will therefore be limited as these marketing and distributions channels grow and funding becomes available. While we are in discussions with a number of large third party marketing and distribution partners with the manpower and financial resources to more quickly and aggressively promote our products, there is no assurance that we will enter into an agreement with these potential partners on acceptable terms or at all.

We intend to rely upon the third-party FDA-approved manufacturers or suppliers to manufacture our heart monitoring products. Should these manufacturers fail to perform as expected, we will need to develop or procure other manufacturing sources, which would cause delays or interruptions in our product supply and result in the loss of significant sales and customers.

We currently have no internal manufacturing capability, and will rely extensively on FDA-approved licensees, strategic partners or third party contract manufacturers or suppliers. We have recently entered into a contract manufacturing agreement with a private-label manufacturer to manufacture our Model 100 Monitors and package our Model 100 Monitor System. We cannot give you any assurance that this contract manufacturer or any other contract manufacturer or supplier we procure will be able to supply our product in a timely or cost effective manner or in accordance with applicable regulatory requirements or our specifications. Further, should we be forced to manufacture our products, we cannot give you any assurance that we will be able to develop an internal manufacturing capability or procure third party suppliers.

We are dependent for our success on a few key executive officers. Were we to lose one or more of these key executive officers, we would be forced to expend significant time and money in the pursuit of a replacement, which would result in both a delay in the implementation of our business plan and the diversion of working capital.

Our success depends to a critical extent on the continued efforts of services of our executive management team comprised of Dr. Lowell T. Harmison, our President and Chief Operating Officer, and Dr. Budimir S. Drakulic, our Chief Technology Officer. Were we to lose one or more of these key executive officers, we would be forced to expend significant time and money in the pursuit of a replacement, which would result in both a delay in the implementation of our business plan and the diversion of working capital. We are currently under discussions with Dr. Harmison in connection with entering into an employment agreement. Dr. Drakulic is employed as a consultant under a loan-out agreement through June 26, 2016. None of these agreements will preclude any of these key officers from leaving the company, and no assurance can be given that we will enter into an employment agreement with Dr. Harmison. We currently maintain key man life insurance policies in the amount $3 million with respect to Dr. Drakulic which will assist us in recouping some of our costs in the event of the death of that officer.

Our products are highly regulated. We will not be able to introduce our products to market if we cannot obtain the necessary regulatory approvals. If we are unable to obtain regulatory approvals for our products in selected key markets at all or in a timely manner, we will not be able to grow as quickly as

expected, and the loss of anticipated revenues will also reduce our ability to fully fund our operations and to otherwise execute our business plan. Our failure to receive the regulatory approvals in the United States would likely cause us to go out of business.

The manufacture, sale, promotion and marketing of our heart monitoring products and other products we intend to develop are subject to regulation by the Food and Drug Administration (*FDA*) and similar government regulatory bodies in other countries. As we develop or obtain new products we will be required to determine what regulatory requirements, if any, we must comply with in order to market and sell our products in the United States and worldwide. The process of obtaining regulatory approval could take years and be very costly, if approval can be obtained at all. If we fail to comply with these requirements, we could be subjected to enforcement actions such as an injunction to stop us from marketing the product at issue or a possible seizure of our assets. We intend to work diligently to assure compliance with all applicable regulations that impact our business. We can give you no assurance, however, that we will be able to obtain regulatory approval for all of our products. We also cannot assure you that additional regulations will not be enacted in the future that would be costly or difficult to satisfy.

Because we are not diversified, we are subject to a greater risk of going out of business should our single proposed product line fail.

The only business opportunities we are presently pursuing are the heart monitoring or ECG market and, later, using the same technology, the neurological brain scan or EEG market. Unlike many established companies that are diversified, we do not presently have other businesses, properties, investments or other income producing assets upon which we could rely upon should our single product line fail, thereby increasing the risk of our going out of business.

Many of our customers will rely upon third party reimbursements from third party payors to cover all or a portion of the cost of our products. If third party payors do not provide reimbursement for our products, we will not be able to grow as quickly as expected, and the loss of anticipated revenues will also reduce our ability to fully fund our operations and to otherwise execute our business plan.

We intend to sell our heart monitoring products to individual patients and doctors, hospitals and clinics who will seek reimbursement from various third party payors, including government health programs, private health insurance plans, managed care organizations and other similar programs. We can give you no assurance that reimbursement will be available from third party payors at all, or for more than a nominal portion of the cost of our products.

Our inability to protect our intellectual property rights could allow competitors to use our property rights and technologies in competition against our company, which would reduce our sales. In such an event we would not be able to grow as quickly as expected, and the loss of anticipated revenues will also reduce our ability to fully fund our operations and to otherwise execute our business plan.

We rely on a combination of patent, patent pending, copyright, trademark and trade secret laws, proprietary rights agreements and non-disclosure agreements to protect our intellectual properties. We cannot give you any assurance that these measures will prove to be effective in protecting our intellectual

properties. We also cannot give you any assurance that our existing patents will not be invalidated, that any patents that we currently or prospectively apply for will be granted, or that any of these patents will ultimately provide significant commercial benefits. Further, competing companies may circumvent any patents that we may hold by developing products which closely emulate but do not infringe our patents. While we intend to seek patent protection for our products in selected foreign countries, those patents may not receive the same degree of protection as they would in the United States. We can give you no assurance that we will be able to successfully defend our patents and proprietary rights in any action we may file for patent infringement. Similarly, we cannot give you any assurance that we will not be required to defend against litigation involving the patents or proprietary rights of others, or that we will be able to obtain licenses for these rights. Legal and accounting costs relating to prosecuting or defending patent infringement litigation may be substantial.

We also rely on proprietary designs, technologies, processes and know-how not eligible for patent protection. We cannot give you any assurance that our competitors will not independently develop the same or superior designs, technologies, processes and know-how.

While we have and will continue to enter into proprietary rights agreements with our employees and third parties giving us proprietary rights to certain technology developed by those employees or parties while engaged by our company, we can give you no assurance that courts of competent jurisdiction will enforce those agreements.

Risks Relating To An Investment In Our Securities

Our common shares are sporadically or thinly traded, so you may be unable to sell at or near ask prices or at all if you need to sell your shares to raise money or otherwise desire to liquidate your shares

Our common shares have historically been sporadically or thinly traded, meaning that the number of persons interested in purchasing our common shares at or near ask prices at any given time may be relatively small or non-existent. This situation is attributable to a number of factors, including the fact that we are a small company which is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unestablished company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without a material reduction in share price. We cannot give you any assurance that a broader or more active public trading market for our common shares will develop or be sustained, or that current trading levels will be sustained. Due to these conditions, we can give you no assurance that you will be able to sell your shares at or near ask prices or at all if you need money or otherwise desire to liquidate your shares.

The market price for our common shares has a small and thinly-traded public float and is particularly volatile given our status as a company which has only recently introduced its products to market, and our

limited operating history, nominal revenues and lack of profits to date, all of which could lead to wide fluctuations in our share price. The price at which you purchase our common shares may not be indicative of the price that will prevail in the trading market. You may be unable to sell your common shares at or above your purchase price, which may result in substantial losses to you. The volatility in our common share price may subject us to securities litigation.

The market for our common shares is characterized by significant price volatility when compared to seasoned issuers, and we expect that our share price will continue to be more volatile than a seasoned issuer for the indefinite future. The volatility in our share price is attributable to a number of factors. First, we have relatively few common shares outstanding in the public float since most of our shares are held by a small number of shareholders. In addition, as noted above, our common shares are sporadically or thinly traded. As a consequence of this lack of liquidity, the trading of relatively small quantities of shares by our shareholders may disproportionately influence the price of those shares in either direction. The price for our shares could, for example, decline precipitously in the event that a large number of our common shares are sold on the market without commensurate demand, as compared to a seasoned issuer which could better absorb those sales without a material reduction in share price. Secondly, we are a speculative or risky investment due to our limited operating history, nominal revenues and lack of profits to date, and uncertainty of future market acceptance for our products. As a consequence of this enhanced risk, more risk-adverse investors may, under the fear of losing all or most of their investment in the event of negative news or lack of progress, be more inclined to sell their shares on the market more quickly and at greater discounts than would be the case with the stock of a seasoned issuer. Additionally, in the past, plaintiffs have often initiated securities class action litigation against a company following periods of volatility in the market price of its securities. We may in the future be the target of similar litigation. Securities litigation could result in substantial costs and liabilities and could divert management s attention and resources.

The following factors may add to the volatility in the price of our common shares: actual or anticipated variations in our quarterly or annual operating results; acceptance of our products and services as viable market solution; government regulations, announcements of significant acquisitions, strategic partnerships or joint ventures; our capital commitments; and additions or departures of our key personnel. Many of these factors are beyond our control and may decrease the market price of our common shares, regardless of our operating performance. We cannot make any predictions or projections as to what the prevailing market price for our common shares will be at any time, including as to whether our common shares will sustain their current market prices, or as to what effect that the sale of shares or the availability of common shares for sale at any time will have on the prevailing market price.

Since a single shareholder currently beneficially owns more than one-third of our outstanding common shares, that shareholder retains the ability to influence or control our management and the outcome of corporate actions requiring shareholder approval notwithstanding the overall opposition of our other shareholders. This concentration of ownership could discourage or prevent a potential takeover of our company that might otherwise result in you receiving a premium over the market price for your common shares.

ARC Finance Group, LLC (*ARC Finance Group*), which is owned and controlled by Ms. Tracey Hampton, owns more than one-third of our outstanding common shares and voting securities. As a consequence of its substantial stock ownership position, ARC Finance Group effectively holds the practical ability to elect a majority of our board of directors or to remove any director, and thereby control our management. ARC Finance Group also has the practical ability to control the outcome of corporate actions requiring shareholder approval, including mergers and other changes of corporate control, going private transactions, and other extraordinary transactions. ARC Finance Group actively evaluates potential modifications to our board of directors and management, and could make such modifications or wholesale changes at any time if deemed to be in the company s best interest.

The sale of a large amount of common shares held by our shareholders or our executive officers or directors, or the perception that such sales could occur, could depress the prevailing market prices for our shares.

There are a substantial number of common shares either currently outstanding or acquirable upon exercise of common share purchase options or warrants by our officers, directors and principal shareholders that may be freely sold on the public markets. Included in these holdings are 3,500,000 common shares (out of a total of approximately 22,605,800 common shares) held by our controlling shareholder, ARC Finance Group, that we registered for sale in mid-2005 to provide ARC Finance Group with a mechanism to sell such shares on the public market should it decide to do so in view of its apparent ineligibility to sell those shares under the Rule 144 safe harbor under current SEC interpretations. Shortly after such registration, ARC Finance Group transferred a substantial portion of these shares to independent trustees under blind trusts it has established. As of this date neither ARC Finance Group nor Signalife knows if the independent trustees have sold any of such shares or, in the alternative, increased their position. ARC Finance Group reserves the right to sell the balance of the registered 3,500,000 common shares under 10b-5 plans or otherwise, although to our knowledge it has not, to date, sold those shares. We also regularly issue registered common shares to officers, employees, directors and certain eligible consultants as compensation for the provision of services, which are immediately available for sale. A large number of our shares, both registered and unregistered, may also be sold under available resale exemptions under the federal securities laws, including Rule 144 (albeit subject to volume limitations in the case of shares held by affiliates or restricted stock held for less than two years). We anticipate that a substantial number of the aforesaid registered and unregistered shares, whether currently held or acquired in the future by way of grant or exercise of common share purchase options or warrants, will be sold on the public markets for a number of reasons, including the need to satisfy income tax liabilities, the need to cover the purchase price of option and warrant exercises, or decisions predicated on market conditions. The occurrence of such sales, or the perception that such sales could occur, could depress the prevailing market prices for our shares.

A large number of common shares are issuable upon the exercise of outstanding common share purchase options or warrants. The exercise of these securities could result in the substantial dilution of your investment in terms of your percentage ownership in the company as well as the book value of your common shares. The sale of a large amount of common shares received upon the exercise of these securities on the public market to finance the exercise price or to pay associated income taxes, or the perception that such sales could occur, could depress the prevailing market prices for our shares.

There are currently outstanding as of November 27, 2007, share purchase options and warrants entitling the holders to purchase 11,259,179 common shares at weighted average exercise prices of $1.98 per share. Included in these share purchase options are a large number granted to directors, officers, employees and consultants that are subject to vesting conditions. In the event of the exercise of these securities, you could suffer substantial dilution of your investment in terms of your percentage ownership in the company as well as the book value of your common shares. In addition, the holders of the common share purchase options or warrants may sell common shares in tandem with their exercise of those options or warrants to finance that exercise, or may resell the shares purchased in order to cover any income tax liabilities that may arise from their conversion or exercise of these securities.

Our issuance of additional common shares or preferred shares, or options or warrants to purchase those shares, would dilute your proportionate ownership and voting rights. Our issuance of additional preferred shares, or options or warrants to purchase those shares, could negatively impact the value of your investment in our common shares as the result of preferential voting rights or veto powers, dividend rights, disproportionate rights to appoint directors to our board, conversion rights, redemption rights and liquidation provisions granted to the preferred shareholders, including the grant of rights that could discourage or prevent the distribution of dividends to you, or prevent the sale of our assets or a potential takeover of our company that might otherwise result in you receiving a distribution or a premium over the market price for your common shares.

We are entitled under our certificate of incorporation to issue up to 100,000,000 common and 10,000,000 blank check preferred shares. After taking into consideration our common and series A preferred shares outstanding or accrued for issuance as of November 27, 2007, we will be entitled to issue up to 46,627,197 additional common shares and 9,985,453 additional preferred shares. Our board may generally issue those common and preferred shares, or options or warrants to purchase those shares, without further approval by our shareholders based upon such factors as our board of directors may deem relevant at that time. Any preferred shares we may issues shall have such rights, preferences, privileges and restrictions as may be designated from time-to-time by our board, including preferential dividend rights, voting rights, conversion rights, redemption rights and liquidation provisions. It is likely that we will be required to issue a large amount of additional securities to raise capital to further our development and marketing plans. It is also likely that we will be required to issue a large amount of additional securities to directors, officers, employees and consultants as compensatory grants in connection with their services, both in the form of stand-alone grants or under our various stock plans. We cannot give you any assurance that we will not issue additional common or preferred shares, or options or warrants to purchase those shares, under circumstances we may deem appropriate at the time.

We are subject to the Delaware Business Combination Act, which could discourage or prevent a potential takeover of our company that might otherwise result in you receiving a premium over the market price for your common shares.

As a Delaware corporation, we are subject to the Delaware Business Combination Act which precludes a shareholder who owns 15% or more of our shares from entering into a business combination involving our company for a period of three years, unless (1) our board of directors approves the combination before the shareholder acquires the 15% interest; (2) the interested shareholder acquires at least 85% of our shares as part of the transaction in which he acquired the initial 15%, excluding shares owned by our officers who are also directors and voting stock held by employee benefit plans; or (3) the combination is approved by a majority vote of our board of directors and two-thirds vote of our other shareholders at a duly called shareholders meeting. A business combination is defined as (1) a merger or consolidation requiring shareholder approval, (2) the sale, lease, pledge, or other disposition of our assets, including by dissolution, having at least 50% of the entire asset value of our company, or (3) a proposed tender or exchange offer of 50% or more of our voting stock.

The elimination of monetary liability against our directors, officers and employees under our certificate of incorporation and the existence of indemnification rights to our directors, officers and employees may result in substantial expenditures by our company and may discourage lawsuits against our directors, officers and employees.

Our certificate of incorporation contains provisions which eliminate the liability of our directors for monetary damages to our company and shareholders to the maximum extent permitted under Delaware corporate law. Our bylaws also require us to indemnify our directors to the maximum extent permitted by Delaware corporate law. We may also have contractual indemnification obligations under our agreements with our directors, officers and employees. The foregoing indemnification obligations could result in our company incurring substantial expenditures to cover the cost of settlement or damage awards against directors, officers and employees, which we may be unable to recoup. These provisions and resultant costs may also discourage our company from bringing a lawsuit against directors, officers and employees for breaches of their fiduciary duties, and may similarly discourage the filing of derivative litigation by our shareholders against our directors, officers and employees even though such actions, if successful, might otherwise benefit our company and shareholders.

FORWARD-LOOKING STATEMENTS

In this prospectus we make a number of statements, referred to as *forward-looking statements*, which are intended to convey our expectations or predictions regarding the occurrence of possible future events or the existence of trends and factors that may impact our future plans and operating results. These forward-looking statements are derived, in part, from various assumptions and analyses we have made in the context of our current business plan and information currently available to us and in light of our experience and perceptions of historical trends, current conditions and expected future developments and other factors we believe to be appropriate in the circumstances. You can generally identify forward-looking statements through words and phrases such as *seek*, *anticipate*, *believe*, *estimate*, *expect* *intend*, *plan*, *budget*, *project*, *may be*, *may continue*, *may likely result*, and similar

expressions. When reading any forward looking statement you should remain mindful that actual results or developments may vary substantially from those expected as expressed in or implied by that statement for a number of reasons or factors, such as those relating to: (1) the success of our research and development activities, the development of a viable commercial production model, and the speed with which regulatory authorizations and product launches may be achieved; (2) whether or not a market for our products develops and, if a market develops, the pace at which it develops; (3) our ability to successfully sell our products if a market develops; (4) our ability to attract the qualified personnel to implement our growth strategies; (5) our ability to develop sales, marketing and distribution capabilities; (6) our ability to obtain reimbursement from third party payers for the products that we sell; (7) the accuracy of our estimates and projections; (8) our ability to fund our short-term and long-term financing needs; (9) changes in our business plan and corporate strategies; and other risks and uncertainties discussed in greater detail in the sections of this prospectus, including those captioned *Risk Factors* and *Management s Discussion And Analysis Of Financial Condition And Results Of Operations* .

Each forward-looking statement should be read in context with, and with an understanding of, the various other disclosures concerning our company and our business made elsewhere in this prospectus as well as other public reports filed with the United States Securities and Exchange Commission (the *SEC*). You should not place undue reliance on any forward-looking statement as a prediction of actual results or developments. We are not obligated to update or revise any forward-looking statement contained in this prospectus to reflect new events or circumstances unless and to the extent required by applicable law.

USE OF PROCEEDS

The proceeds from the sale of the common shares to be sold under this prospectus will be retained by the selling shareholders, and will not be paid or remitted or otherwise made available to our company.

Included in the common shares offered for sale under this prospectus, are 1,500,000 common shares issuable upon the exercise of common share purchase warrants. These warrants contain cashless exercise provisions to the extent the sale of the underlying shares are not subject to an effective registration statement or in the event of an event of default as defined in the underlying Securities Purchase Agreement. In the event that the selling shareholders exercise any or all of these warrants for cash, we would be entitled to such cash proceeds.

BUSINESS

Overview

Signalife, Inc. is a medical device company focused on researching, developing and marketing medical devices which monitor and measure physiological signals in order to detect diseases that impact an individual s health. Physiological signals are small bioelectrical signals generated by the body. Our initial product, the Signalife *Fidelity 100 Monitor System* or *Fidelity 100* , is a heart monitoring systems that uses our proprietary Model 100 patient module to acquire, amplify and process physiological signals associated with a patient s cardiovascular system. Heart monitor systems are used in a variety of medical settings. For example, they are used to collect physiological data for electrocardiogram or ECG tests for

the purpose of detecting and identifying cardiovascular disease, and also used to monitor the condition of the heart during surgical procedures. Our patient module operates using our proprietary patented signal acquisition and amplification technology, as well as Bluetooth technology which allows the acquired signals to be wirelessly transmitted to a personal computer for interpretation and storage by the physician. Our proprietary signal acquisition and amplification technology provides the capability to collect, enlarge and process physiological signals in a manner that discriminates them from ambient or background electromagnetic noise, thereby facilitating the examination of the signal data for diagnostic purposes.

Recent Corporate History

Signalife was originally incorporated in Delaware on January 19, 1987 under the name Mt. Olympus Enterprises Inc. Since our formation, we changed our name to Recom Managed Systems, Inc. on November 6, 1998, and then to Signalife, Inc. on November 2, 2005.

Prior to September 19, 2002, we were an inactive corporate shell. On September 19, 2002, we acquired certain know how, trade secrets and other proprietary intellectual property rights relating to the development of a physiological signal amplification equipment and technology, referred to in this prospectus as the *Signal Technologies*, from ARC Finance Group, LLC (*ARC Finance Group*), our parent corporation, in exchange for 23,400,000 common shares (7,800,000 shares pre-split). The shares represented approximately 85% of our issued and outstanding common shares. We valued the Signal Technologies at $78,023 for financial accounting purposes, reflecting ARC Finance Group s cost to acquire the Signal Technologies from Dr. Budimir S. Drakulic as discussed below. The terms of the acquisition were determined by the parties on an arms-length negotiated basis. No independent valuation was sought from a business/technology appraiser or other third party due to financial constraints. There was no relationship between Signalife, including our officers, directors and shareholders, and ARC Finance Group, including its officers, directors and shareholders, prior to our acquisition of the Signal Technologies from ARC Finance Group. No finder s fees or other forms of consideration were paid by Signalife or ARC Finance Group or our respective officers, directors or shareholders in connection with our acquisition of the Signal Technologies.

The principal component of the Signal Technologies is our proprietary patented signal acquisition and amplification technology which was originally invented by our Chief Technology Officer, Dr. Budimir S. Drakulic. The underlying patent covers methods of discriminating different biomedical signals from ambient electromagnetic noise. Also included in the Signal Technologies was an assignment of a license agreement dated December 9, 1993 between Dr. Drakulic and Teledyne Electronic Technologies (*Teledyne*) pursuant to which Dr. Drakulic granted a limited license to that company to manufacture electroencephalogram or EEG monitor products based upon an early version of the amplification technology. This early version amplifier is also currently used by the National Institute of Health as well as companies such as Titan Systems and Teledyne, Inc. for purposes of monitoring different physiological signals. This license agreement specified that Dr. Drakulic retained ownership of the original patent and underlying technology and the right to use technology to develop new products as long as they would not infringe on Teledyne s licensed products. Dr. Drakulic has since received a letter from Teledyne acknowledging that the use of the technology for our proposed heart monitor systems does not infringe

on Teledyne s licensed products. Concurrent with our acquisition of the Signal Technologies, we obtained Dr. Drakulic s services as our Chief Technology Officer to lead our product development efforts.

ARC Finance Group is a Delaware limited liability company formed in May 2002 which is owned and controlled by Ms. Tracey Hampton. In or about May 2002, ARC Finance Group entered into an understanding with Dr. Drakulic pursuant to which it would fund informal proof-of-concept activities and product development costs to be incurred by Dr. Drakulic in order to establish to the satisfaction of ARC Finance Group the potential of the Signal Technologies for ECG applications, and would also pay other expenses of Dr. Drakulic, in exchange for the rights to acquire and market the Signal Technologies. Pursuant to that understanding, ARC Finance Group funded these activities and costs in the amount of $78,023 during the summer of 2002, and acquired the Signal Technologies from Dr. Drakulic when it became satisfied that the Signal Technologies could be applied for ECG applications. Following its acquisition of the Signal Technologies, ARC Finance Group sought a third-party company to license or acquire the Signal Technologies for its commercial development, leading to our acquisition of the Signal Technologies from ARC Finance Group. Since that acquisition, ARC Finance Group has remained a holding company for an investment in our company. ARC Finance Group s only investments and sources of revenue and business activity to date relates to Signalife. There is no past or current relationship between ARC Finance Group and Titan Systems or Teledyne Inc.

Description Of Heart Monitor Systems And ECGs

A heart monitor system is a system used to monitor and record changes in physiological signals associated with a patient s cardiovascular system. The principal use of heart monitor systems is to collect physiological data for electrocardiogram or ECG tests for the purpose of detecting and identifying cardiovascular disease. Other uses include the monitoring of the heart during surgical procedures. An ECG gives the cardiologist important information about the heart. For example, by examining changes in waveforms from 0.67 Hz to 40 Hz frequency range, a cardiologist can identify irregularities in the heart s rate and rhythm, known as arrhythmia. By examining changes in waveforms in the broader 0.05 Hz to 150 Hz frequency range, a cardiologist can identify different types of heart disease, including damage to the heart muscles or tissue resulting from (1) decreased blood flow attributable to the narrowing of the arteries, known as cardiac ischemia, (2) enlargement of the heart resulting from additional effort attributable to the hardening of the heart muscle, known as hypertrophy, and (3) the existence of past or presently occurring heart attacks.

When an ECG test is ordinarily conducted in a clinical setting, the physiological signals from the patient s heart are displayed through a heart monitor system called a 12-lead ECG, based on acquiring a signal from ten electrodes, one of which is attached to each of the patient s arms, six to the chest and one to each leg. The placement of the ten electrodes enables the heart to be examined for different diseases. Physiological signals generated by the heart are amplified and recorded in the form of a series of waveforms that can be displayed on a screen or printed on paper for interpretation by a cardiologist. Any irregularity in heart rhythm, damage or stress to the heart muscle will result in a deviation from a normal waveform.

There are three settings under which ECGs are normally taken: (1) the clinical or resting setting where the patient is immobile; (2) the ambulatory setting where the patient is mobile; and (3) the exercise setting where the patient is subjected to physical stress in a controlled environment. These three types of ECG tests are more fully described as follows:

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ECGs administered in the clinical or resting setting are generally taken (1) on an annual or periodic basis for typically older patients as part of their annual or regular physical examination; (2) under emergency or exigent circumstances when an individual complains of symptoms typically associated with heart disease such as chest pains, shortness of breath or heart palpitations; or (3) as part of surgeries and medical procedures, such as heart surgery. Most clinical ECGs are obtained in the resting setting. In a resting setting, the principal technical issue in interpreting ECG waveforms arise from the existence of ambient or background noise emanating from other electromagnetic sources, including (1) signals generated by the other organs, muscles and systems of the body, whether from movement or the performance by those organs of their bodily functions, and (2) signals generated by sources external to the body, such as electronic equipment, lights or engines. This ambient noise is commonly referred to as an artifact . As previously discussed, cardiologists can identify irregularities in the heart s rate and rhythm, known as arrhythmia, by examining changes in the 0.67 to 40 Hz frequency range. Because of the relatively large amplitudes of these waveforms in this range, cardiologists can, as a practical matter, easily identify arrhythmia notwithstanding the existence of electromagnetic ambient noise from other sources. However, it is very difficult for cardiologists to distinguish physiological signals from ambient noise in the broader frequency ranges used to identify different types of heart disease, including cardiac ischemia, hypertrophy and the existence of past or presently occurring heart attacks. The reason for this difficulty is that the physiological signals associated with these other heart diseases are of a much lower amplitude or strength in the lower 0.05 to 0.67 Hz and upper 40 to 150 Hz portions of the frequency range, meaning that they do not stand-out from the ambient noise in these portions and therefore cannot be easily discriminated from that ambient noise. In order to minimize ambient noise in the clinical setting, ECGs are normally taken in the hospital or physician offices. Cardiologists instruct the patient to lie in the supine position, being as still as possible while a reading is taken to reduce ambient noise caused by physical movement. Another method to reduce ambient noise is to reduce the sensitivity of the monitoring equipment, although this alternative results in a loss of signal quality and the ability to read certain signal intricacies.

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ECGs administered in the ambulatory setting are given in an attempt to identify so-called transient heart disease that is, problems that come and go, and that are not apparent in the low-activity states where a standard clinical or resting ECG is typically taken. Examples of transient heart disease are cardiac ischemia and cardiac hypertrophy. Additionally, the existence of past or presently occurring heart attacks can escape detection without longer-term monitoring in a physically active or stressful setting. An ambulatory heart monitor system, commonly known as a Holter monitor, allows the patient s heart to be continuously monitored over a period of hours or days, while the patient carries out his or her daily activities under typical conditions of stress away from the physicians office or hospital. The principal technical limitation in deciphering ECG waveforms in an ambulatory setting is that in many cases, ambulatory heart monitor systems are

unable to accurately identify many of the heart conditions they are intended to identify due to their inability to clearly distinguish and discriminate the physiological signals associated with these conditions from electromagnetic ambient noise in the lower and upper portions of the full 0.05 to 150 Hz frequency range. Therefore, the industry standard for ambulatory recorders is 0.67 to 40 Hz.

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ECGs administered in the exercise or stress setting are given while the patient exercises on a treadmill, step machine or exercise cycle to enable the cardiologist to monitor, among other things, the patient s heart behavior under conditions of physical stress. Exercise can exacerbate cardiovascular abnormalities that are not present at rest and it can be used to determine the adequacy of cardiac function. Similar to an ambulatory ECG, this allows the cardiologist to identify different heart disease such as cardiac ischemia and cardiac hypertrophy as well as the existence of past or presently occurring heart attacks that may not be evident under a clinical resting or simple ambulatory ECG test conditions. Indeed, many physicians administer a stress ECG before proceeding to an ambulatory ECG. While external sources of ambient noise can be reduced in the clinical setting when exercise ECGs are conducted, high levels of physical activity inherent in exercise ECGs generate higher internal levels of ambient noise due to necessary patient movement. To address this issue, exercise ECG devices are connected to computers which run sophisticated software to filter and process physiological signals and produce average waveforms for interpretation by the cardiologist. However, the American Heart Association and American College of Cardiology each state that computer processing is not completely reliable because of software limitations in handling noise and the technical limitations of the algorithms used in the software, and cardiologists are therefore advised to look at the raw data and not to rely solely upon software-processed data.

Description Model 100 Patient Module

The core component of our heart monitoring systems is our battery-operated, digital 12-lead Model 100 patient module (the *Model 100 Module*), a compact device approximately 4 x 3.5 x 1.5 inches in size and 5.5 oz. in weight, that allows a patient s heart to be continuously monitored over a period of 24 to 48 hours in a variety of settings both non-ambulatory (stationary) and ambulatory (moving) such as hospitals, surgeries, clinics, doctors offices, exercise and sports medicine clinics and laboratories. The Model 100 Module contains both our proprietary patented amplification technology which acquires, processes and amplifies ECG signals, as well as Bluetooth technology which allows the acquired signals to be wirelessly transmitted to a personal computer for interpretation and storage by the physician.

The production version of our Model 100 Module was originally designed, engineered, fabricated and tested by Battelle Memorial Institute, Health and Life Sciences, pursuant to a research and development services agreement completed by Battelle Memorial Institute in December 2004. Battelle Memorial Institute is a global science and technology enterprise that designs, develops and commercializes technology and manages laboratories for customers. The pre-production model of our Model 100 Module, which was completed by Battelle Memorial Institute in December 2004, was tested and determined to comply with all applicable performance, safety, environmental and regulatory standards, including the United States Food And Drug Administration (*FDA*)-recognized consensual American

National Standards Institute/Association for the Advancement Of Medical Instrumentation (*ANSI/AAMI*) EC-38 industry standards for ambulatory ECG devices, Federal Communications Commission (*FCC*) requirements for Human Exposure to Radiofrequency (RF), the FDA-recognized consensual industry standards for electromagnetic compatibility for medical devices (EMC), the FDA-recognized IE 60601-1 international safety standard relating to medical electrical equipment, and the FDA's Quality System Regulations. These testing results also satisfied our obligation under our abbreviated 510(k) submission to have supporting data in our files before marketing the Model 100 Module as part of the Model 100 Monitor System. The Model 100 Module also complies with ANSI/AAMI EC-11 and EC-13 ECG standards to the extent they relate to non-diagnostic features and alarm functions for stationary (non-ambulatory) ECG devices.

Description Of Products

Fidelity 100 Monitor System

Our initial product using the Model 100 Module is the Signalife *Fidelity 100 Monitor System* or *Fidelity 100* . The *Fidelity 100* is an integrated system in which our Model 100 Module collects, processes and amplifies ECG signals from that patient through a set of twelve electrode lead sets provided with the system, and then wirelessly transmits that signal to a nearby personal computer provided with the system. The signals are then displayed on a computer monitor and can be printed on a printer provided with the system for analysis by the cardiologist.

The *Fidelity 100 Monitor System* is marketed an integrated system containing all of the components the Model 100 Module, electrode lead sets, and a personal computer with monitor and printer, which could either be in a desk top or laptop configuration. This product has received FDA 510(k) clearance as a class II medical device.

The *Fidelity 100 Monitor System* is principally used for clinical (resting) settings, including (1) monitoring the performance of the heart during surgical procedures including heart surgery; (2) under emergency or exigent circumstances when an individual complains of symptoms typically associated with heart disease such as chest pains, shortness of breath or heart palpitations; and (3) as part of regular examinations or preventative programs for the purpose of detecting and identifying cardiovascular disease.

We introduced the *Fidelity 100 Monitor System* by presenting the system at the annual meeting of the American College of Cardiology held at Atlanta, Georgia, from March 12-14, 2006, and received our first orders for this product in October 2006. Nevertheless, our marketing efforts for this product within the United States have been nominal to date, principally due to third-party performance issues in distributing our products while prior management devoted its limited time and resources to other matters. We are now focusing our efforts on formally launching this product into the United States market using our own resources.

Fidelity 200 Event Recording System

The Signalife *Fidelity 200 Event Recording System* or *Fidelity 200* , which is in the final development stage as discussed below, is a direct-to-consumer non-prescription credit card-sized heart monitoring

device which has been specifically designed to be used in conjunction with monitoring centers. This product has received FDA 510(k) clearance as a class II medical device.

The *Fidelity 200*, which utilizes the proprietary physiological signal acquisition and amplification technology used in the *Model 100 Module*, will be used as an early-detection device by patients who desire to independently monitor their condition. Specifically, at the onset of an event that will be recorded, the patient holds the event recorder to his/her chest, presses the record button, and records up to a 45-second event. The event recorder will be capable of storing up to six, 45-second recordings. The patient will then either take the recorder to his or her physician for review or transmit the data to a subscription-based 24-hour monitoring center via a telephone phone line. In the latter case, the patient will call the monitoring center and upon verbal communication with receiving station personnel, position the monitor over the telephone mouthpiece, and start the transmission by pressing the play button. Data will then be transmitted to the monitoring center where it can be immediately evaluated by a qualified ECG technician, cardiac nurse or cardiologist.

We anticipate that we will sell the *Fidelity 200* to consumers through retail outlets such as drug stores, retail pharmacies, and major retail discount chains. The consumer will then separately subscribe to a monitoring services that is compatible with the device. We are currently in negotiations with several established monitoring centers in connection with pooling our efforts on the use and sale of the *Fidelity 200* for those centers and the sharing of subscription fees. We are actively involved in engineering the final production version which we will commercially introduce into the market at the first available opportunity.

Fidelity 300 Holter Monitor

The Signalife *Fidelity 300 Holder Monitor* or *Fidelity 300* , which contains the proprietary physiological signal acquisition and amplification technology used in the *Model 100 Module*, is a three-lead ambulatory Holter device. The *Fidelity 300* is used while the patient carries out his or her daily activities away from the physicians office or hospital to collect ECG data relating to arrhythmia and other transient heart disease. Specifically, the data is acquired, processed, amplified and stored in a computer storage chip contained in the *Fidelity 300*, and then downloaded by the physician at a later date when the patient returns to the physician s office. The Fidelity 300 will allow up to thirty days of data to be recorded, satisfying physician needs for a more extensive database, unlike other holter markets currently on the market that record only for a period of 24 to 48 hours.

A major industry partner has indicated its desire to provide the software to be used with this product to scan the processed data, in conjunction with tests to be conducted through the Cleveland Clinic Heart Center. We have extended a right of first negotiation to that industry partner to distribute the *Fidelity 300* on an OEM basis, and are in the process of documenting the anticipated testing regime. We are also in negotiations with another industry partner relating to a joint venture or distribution arrangement. Although we received FDA 5120(k) clearance for an earlier version of this prototype as a class II medical device, we intend to procure additional clearance given new features we have added. We anticipate that we would commence marketing the *Fidelity 300* by the end of fiscal 2008. We have extended a right of first negotiation to the aforesaid major industry partner to distribute the *Fidelity 300* on an OEM basis,

and are in negotiations with another industry partner relating to a potential joint venture or distribution arrangement.

Fidelity 400 Intracardiac Monitor

The Signalife *Fidelity 400 Intracardiac Monitor* or *Fidelity 400* applies our proprietary physiological signal acquisition and amplification technology to read intracardiac signals procured from intracardiac catheter products. An intracardiac catheter is a flexible tube that is inserted through a vein in the leg and fed into the heart. The catheter is equipped with electrodes which allows the signal to be recorded within the heart, and the catheter data is transmitted to a monitor, which allows the physician to evaluate cardiac function, including arrhythmia, or irregular heartbeat. These readings are beneficial in that they measure signals directly from the heart, as opposed to signals read from the surface of the body as is typical in the ordinary application of heart monitors.

We developed and successfully tested a proto-type version of this product at the Electrophysiology Laboratories at the Cleveland Clinic Heart Center as was reported in a poster presentation at the Heart Rhythm Society in Boston in May 2006. We are in the process of planning a series of clinical studies through the Cleveland Clinic for the purposes of procuring FDA 510(k) clearance of the proto-type as a class II medical device. We are also currently designing, engineering and fabricating a production version of this product, which we anticipate will be completed and brought to market by the end of 2008 at the earliest. We are currently in discussion with several major industry partners relating to the commercialization and distribution of this product.

Cardiac Vest

In conjunction with the Champ Car World Series, the North America-based formula-one style auto racing circuit, and cardiologists from the Cleveland Clinic, we have tested a new variant of a patient vest containing proprietary electrodes to be used with our monitors previously under development by Signalife (the Signalife *Cardiac Vest*). The design is planned to allow a patient to use the vest on a 24/7 basis for extended periods of time, being removed only intermittently for showers, etc.

The Signalife *Cardiac Vest* is an extremely lightweight, close-fitting vest or undergarment made of stretchable material in which the electrodes are stitched into the fabric. Cardiologists at the Cleveland Clinic successfully tested the vest during fiscal 2006 in the Champ Car Series, in which selected race-car drivers would wear the vest during races, and the data collected would be transmitted wirelessly to a modified *Fidelity 100* using telemetry. It should be noted that in spite of extremely harsh and noisy testing conditions, we were able to precisely measure ECG signals using the *Cardiac Vest* and the *Fidelity 100*, demonstrating the efficacy of each.

We believe that the Signalife *Cardiac Vest* is more effective and convenient than the electrode/wire sets currently employed with ambulatory recording devices. When employing these electrode/wire sets, the intended attachment site requires proper shaving and preparation of the site and the use of gels to ensure that the lead remains affixed to the site. If the electrode is dislodged from the location site by physical activity or lack of proper site preparation, the Holter monitor will not record the proper signal. In the case of the Signalife *Cardiac Vest,* the electrodes incorporated into the vest do not need to be attached to

the skin. Instead, they need only remain adjacent to the proper location, which is effected through the design and materials used in the vest.

We have are currently designing, engineering and fabricating a production version of the Signalife *Cardiac Vest*, which we anticipate will be completed and brought to market by the end of fiscal 2008 at the earliest. We will also need to procure FDA 510(k) clearance for this product. We have entered into preliminary discussions with an industry partner relative to the prospective distribution of this product for both typical ambulatory purposes as well as for athletic applications.

Patient Monitoring Centers

Signalife has previously considered in the longer term developing, acquiring or entering into joint venture, licensing or other collaborative arrangements with patient monitoring centers that would work in conjunction with our products and with certain monitoring capabilities which we have internally established. Signalife s involvement with patient monitoring centers would enable us to receive a continuous stream of revenues from monitoring devices we sell, which would allow us to substantially enhance our revenues from the initial sale of such devices.

Patient monitoring centers are typically used in ambulatory settings, where a patient either uses an event recorder to independently monitor their condition, or wears a Holter monitor to record data over an extended period of time while performing his or her daily activities away from the physicians office or hospital. The data from the event recorder or Holter monitor is typically transmitted to the monitoring center either by telephone or the Internet. The data is then transferred or made available to the cardiologist.

We would likely expand the services offered by our patient monitoring centers to include mobile outpatient monitoring using either or both of our *Fidelity 200 Event Recording System* or a telemetry-based version of the Signalife *Fidelity 300 Holter Monitor* in conjunction with our *Cardiac Vest*. At this point we are in discussions with several patient monitoring centers relating to a collaborative arrangement whereby the center would use the *Fidelity 200* and we would share subscription fees.

Description Of Products In Investigational Stage

EEG Products

We have initiated a study of the applicability of our technology to electroencephalogram or EEG-related applications, in particular the detection of Alzheimer s, Parkinson s and other neurological diseases. As previously discussed above, earlier versions of our amplification technology are now used in EEG equipment used to measure neurological or brain responses. We believe the enhancements Dr. Drakulic has designed since for ECG purposes may have similar application for the EEG market. As discussed below in this prospectus, this activity will not impact the Teledyne licensing agreement.

Given our immediate focus on marketing and distributing our *Fidelity 100 Monitor System* and introducing our Signalife Holter Monitor and Signalife *Fidelity 200 Event Recording System* to market, we do not anticipate that we actively pursue the data collection and other activities necessary to further this

product until fiscal 2009 at the earliest, however, new management and board members at the company are actively re-evaluating this stratagem.

Description of Signal Technologies; Evaluative Studies

Our patient modules operate using the Signal Technologies. The Signal Technologies are a patented amplification technology originally developed by our Chief Technology Officer, Dr. Budimir S. Drakulic, to address the electrical interference or noise issue during physiological recordings. In an effort to explore ways to accurately and objectively monitor pilot performance, the United States Air Force desired to record a pilot s neurological brain responses, consisting of tiny electrical impulses generated by the brain, to different tasks and stresses that occur in-flight using an electroencephalogram or EEG test. However, the Air Force found that the neurological signal monitoring equipment then available was not able to accurately monitor EEG in an electromagnetically-charged (i.e., noisy or artifact-intensive) environment such as the cockpit of a fighter jet or a B-52 bomber. In 1992, Dr. Drakulic led a team from the University of California at Los Angeles (*UCLA*) and the Veterans Administration in an effort to develop a device to resolve this problem. This effort resulted in the creation by Dr. Drakulic in 1994 of a first-generation amplifier that was successfully used by the Air Force to monitor pilot EEG signals. This early version amplifier is also currently used by the National Institute of Health as well as companies such as Titan Systems and Teledyne, Inc. for purposes of monitoring different physiological signals.

The Signal Technologies were originally acquired by ARC Finance Group from Dr. Drakulic and then by Signalife from ARC Finance Group, based upon the belief of Dr. Drakulic and the principals of these companies that with the technological, development and financial assistance of these companies the capability of the technology to discriminate EEG signals, particularly in an electromagnetically-charged environment such as fighter aircraft cockpits, would have a similar application in discriminating ECG signals from ambient noise. Specifically, it was and continues to be believed by these persons that the Signal Technologies, as applied to the ECG market, would have the ability to amplify and discriminate the lower-amplitude physiological signals associated with those in the lower and upper portions of the full 0.05 to 150 Hz frequency range, thereby facilitating the ability to more clearly identify heart diseases in an ambulatory setting. In developing Signalife s initial ambulatory patient modules and overall heart monitor systems, and adopting the Signal Technologies for those modules and systems, Dr. Drakulic has since enhanced the signal processing technology such that Signalife has filed five additional patents covering these enhancements.

In order to validate our beliefs as to the performance of our technology in the ECG market, on August 30, 2004 we entered into an agreement with the Duke Clinical Research Institute at Duke University to evaluate the performance of our *Fidelity 100 Monitor System* against a well established high fidelity ECG monitor. Under this agreement, the Duke Clinical Research Institute under the supervision of Dr. Mitchell W. Krucoff, as principal investigator, designed and conducted DIVA clinical studies evaluating our *Fidelity 100 Monitor System* during catherization procedures at the Durham, North Carolina, Medical Center from January 2005 to December 2005. The results of the complete study indicate that the *Fidelity 100 Monitor System* provides excellent detection and quantification of transient ischemia. A summary of the results were presented at the IEEE EMBC 2007 conference held in

August 2007 in Lyon, France, and full clinical data will be released in the American Journal of Cardiology.

As previously discussed, we have also validated our beliefs as to the performance of our signal acquisition and amplification technology through the tests conducted by cardiologists at the Cleveland Clinic successfully tested the vest during fiscal 2006 in the Champ Car Series pursuant to which we were able, in spite of harsh and noisy racing conditions, to precisely measure ECG signals.

Competitive Advantages And Marketing Strategy

As discussed above, Signalife believes that the Signal Technologies afford our ECG monitoring devices the ability to amplify and discriminate physiological signals in all settings, notwithstanding the existence of electromagnetic ambient noise from other sources, and in all frequency ranges, including lower-amplitude physiological signals associated with those in the lower and upper portions of the full 0.05 to 150 Hz frequency range associated with transient heart diseases. Signalife believes that this ability affords the *Fidelity 100* heart monitor with significant competitive advantages over the state-of-the-art heart monitors currently on the market. These advantages can be most easily demonstrated and explained by the following graphic, which compares two ECG print-outs taken during a cardiac surgical procedure (seen in the background) recently performed at a major hospital.

The readout on the left is from the *Fidelity 100* heart monitor, while the read-out on the right is from a state of the art heart monitor offered by a competitor. The *Fidelity 100* read out shows the waveform of the normal or proper heart function from all eight leads. The read-out from the state of the art monitor, on the other hand, shows only one lead (on the top) which has any similarity whatsoever to a normal waveform. The data from the second lead is confusing and essentially meaningless, although it could be construed to indicate that there are potentially heart problems, even though there is none indicated on the Signalife read-out. The other leads show no data whatsoever. The significance of the foregoing is that not only does the *Fidelity 100* monitor consistently give accurate signals from all leads in all cases, it also avoid false positives relating to inaccurate information. Specifically, since, as a practical matter, the meaning of the signal from the second lead on the state of the art monitor is meaningless, the physician can only speculate as to what is going on with the heart, and can potentially misdiagnose the condition of the heart.

The reason for the efficacy of the *Fidelity 100* heart monitor over state of the art heart monitors is fairly simple. The *Fidelity 100* has been designed to collect only the signals from the heart, while ignoring and

not being confused by all the other electronic clutter that is occurring in the operating (or ambulatory) environment, including other physiological signals from the body (such as from the brain and other organs) and other electromagnetic signals from the numerous devices in the operating room or surrounding environment. In the case of the state of the art devices, they collect all of the data from the surrounding environment, both physiological and electromagnetic, and then attempt to filter out the other noise sources, with the results seen above. Specifically, much of the data is either distorted, confusing and potentially misleading (as in the case of lead 2), or omitted or non-existent (such as in the case of leads 3 to 8).

As a consequence, Signalife believes that hospitals and physicians will have a huge inducement to purchase the *Fidelity 100* they can more accurate monitor heart functions in all settings and under all conditions surgical, diagnostic, and ambulatory--and avoid misdiagnosis, leading to better patient results, eliminating liability. Moreover, this ability will allow them to eliminate other monitoring functions, thereby reducing procedure costs. Given that there is one heart attack in the United States every 34 seconds, Signalife believes that this enhanced ability to detect cardiac disease early and will lead to life-saving intervention.

Based upon these beliefs, Signalife is marketing or will market our ECG devices as follows:

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In certain clinical resting settings where there is a high incidence of electromagnetic interference, such as in surgical suites, Signalife is promoting the ability of our ECG devices to provide clear and accurate signal data that is not adversely affected by the electromagnetic interference.

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In the case of other clinical resting settings where resting ECGs are typically taken, Signalife is promoting the ability of our ECG devices to allow the patient to walk around the facility or on a treadmill while the ECG is being taken, thereby allowing the physician to better identify transient heart diseases. Since competitive resting ECG devices do not presently have this ability, this should lend our ECG devices a clear competitive advantage over traditional resting ECG devices.

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In the case of ambulatory settings, where a patient wears a Holter monitor or event recorder for an extended period of time while performing his or her daily activities away from the physicians office or hospital, Signalife is promoting the ability of our ECG devices to amplify and discriminate physiological signals in the lower-amplitude physiological signals associated with those in the lower and upper portions of the full 0.05 to 150 Hz frequency range associated with transient heart diseases. Since competitive ambulatory ECG devices do not presently have this ability, this should lend our ECG devices a clear competitive advantage.

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In the case of exercise or stress settings, Signalife is promoting the ability of our ECG devices to provide clear signal data that does not need to be filtered and processed by computer software to eliminate electromagnetic noise, addressing the reliability issues arising from the use of such programs.

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The ability of our ECG devices to provide clear data output and more accurate results across the full Hz frequency ranges also allows us to provide the physician with signal data that will facilitate

greater diagnostic yield , a medical term which means that the physician can more accurately and expeditiously diagnose the cardiac disease or condition, leading to better patient outcomes.

To date, the cardiac monitor market is a mature one with little innovation or product differentiation and limited market growth. Competitors principally compete on price and relatively small margins in order to maintain market share. Volume is mainly predicated on product replacement and the increased need for devices compatible with data networks. Given the product advantages afforded by our Signal Technologies, we believe that we can differentiate the benefits of our products from those of competitors and sell our products for greater prices and margins than our competitors. We also believe that our monitoring devices will cause existing versions in the market to be deemed obsolete, with will accelerate the growth of replacement sales and the overall growth of the market. The principal hurdle we must overcome in order to attain these ends will be educating prospective purchasers as to the product differences and benefits afforded by our products over competitive products.

Market And Competition

Market

Cardiovascular disease accounts for 40% of all hospital revenue and approximately 37% of deaths in the United States. Over 500,000 Americans survive heart attacks every year and need to be diagnostically monitored. In the United States alone, over 280,000 patients have various heart devices implanted. The US Department of Health and Human Services estimates that heart disease costs including, hospital expenses, home care, medications and lost earnings, exceed $400 billion. Experts estimate that 85% of cardiovascular disease could be prevented or halted by sufficient early diagnosis.

According to the American Heart Association, a patient that survives the acute stage of a heart attack has a chance of illness and death that is 1.5-15 times higher than that of the general population. Signalife's patented heart monitoring technology will allow physicians to monitor patients in an ambulatory setting, giving them access to vital life-improving and life-saving information.

Competition

Each of the ECG market segments is highly concentrated with five or six companies typically accounting for a substantial majority of all sales. Our principal competitors in the resting ECG market segment are GE Healthcare, Royal Philips Electronics, Cardiac Science, Inc. and Welch Allyn, Inc. Our principal competitors in the stress ECG market are GE Healthcare, Cardiac Science, Inc, Welch Allyn, Inc. and Schiller AG. Our principal competitors in the ambulatory ECG market segment include Del Mar Reynolds Medical Ltd., GE Healthcare, Royal Philips Electronics, Cardiac Science, Inc, Mortara Instrument, Inc., Rozinn Electronics, Inc., CardioNet, Inc., Raytel Medical Corporation, Cardiac Telecom, Inc. and Card Guard Instromedix and Lifewatch subsidiaries.

The market for heart monitoring products and services is intensely competitive, especially for small companies. Given the lack of product differentiation and intense competition, companies principally compete on price. There are no substantial barriers to entry, and we expect that competition will be intense and may increase. Many of our existing competitors may have substantially greater financial,

product development, technical and marketing resources, larger customer bases, longer operating histories, better name recognition and more established relationships in the industry. As a result, certain of these competitors may be able to develop and expand their product and service offerings more rapidly, adapt to new or emerging technologies and changes in customer requirements more quickly, take advantage of acquisition and other opportunities more readily, devote greater resources to the marketing and sale of their products and services, or aggressively reduce their sales prices below the our costs. We cannot assure you that we will be able compete successfully with existing competitors or new competitors.

Marketing And Distribution Strategy

Our initial marketing efforts for the *Fidelity 100* since its introduction have been extremely limited to date principally due to performance issues with third-party distributors and sales agents to whom we originally delegated sales authority, our limited internal sales and marketing support functions and personnel, and the focus of prior management on other activities. We have recently launched a company-sponsored program to aggressively market and promote the *Fidelity 100* in the United States, in which we will rely upon new senior management and directors, consisting of Dr. Lowell T. Harmison, the President and Chief Operating Officer and a director of Signalife, and Drs. Steven J. Phillips, Robert E. Windom and Jay A. Johnson, directors of Signalife, taking the initiative to personally market the *Fidelity 100* to selected marquee cardiac hospitals in the United States and selected physicians and physician groups to whom they have pre-existing relationships and entrees to top management and decision makers. Given their prominent reputations in the industry, Signalife believes Drs. Harmison, Phillips, Windom and Johnson will be able to cut through red-tape to more quickly demonstrate the benefits of the product and procure purchase orders, thereby in kick-starting sales and achieving market acceptance of the *Fidelity 100* heart monitor as the state of the art heart monitor. Given that Drs. Harmison, Phillips, Windom and Johnson and have extensive experience in one or more different but complementary medical areas that will use the Signalife *Fidelity 100* heart monitor for slightly different purposes and benefits cardiology, internal medicine, and cardiac surgery Signalife will have the ability to better address physician concerns in each such area.

Signalife also intends to develop its own internal sales team, and will likely engage independent commissioned salespersons or joint venture partners to distribute our products in the United States under certain circumstances. New management is currently reevaluating the company`s existing independent sales agents in view of prior performance issues. We have also entered into agreements with several firms to market, promote and otherwise introduce our products to medical professionals and health care institutions, both internationally (principally Mexico to date) and the United States, and to otherwise generate product awareness.

We are also in discussions with several prospective industry partners relative to distributing our products, including an the *Fidelity 100 Monitor System*; the Signalife *Fidelity 200 Event Recording System*; the *Fidelity 300 Holter Monitor*, the *Fidelity 400 Intracardiac Monitor*, and an industry partner that is investigating the use of the Signalife *Cardiac Vest* for Holter monitor purposes. No assurance can be given that we will enter into agreements with any of these industry partners.

We have recently successfully completed a pilot program with a national gym, in which patrons of the gym at a selected facility were tested using the Signalife *Fidelity 100 Monitor System* in order to detect and identify cardiovascular disease that could be triggered or exacerbated by exercise programs. As part of the program, we developed a set of test protocols and procedures to address cardiac risks inherent to exercise. We are now in the process of expanding the program to fitness facilities across the country.

We are also participating in the Athletes For Life program which will focus on developing protocols to test professional and amateur athletes for cardiovascular disease and abnormalities as part of their regular training regime, and will also promote testing for impoverished communities where early detection of cardiovascular disease simply does not exist. A large number of high-profile athletes have indicated their desire both in participating in this program given the high incidence of cardiovascular abnormalities associated with athletes involved in professional sports and track and field; and also sponsoring the community outreach portion of the program given their desire to promote community fitness and cardiovascular testing in the general community.

Manufacturing Capacity

We intend to manufacture our products both domestically and off-shore using third party FDA-certified contract manufacturers or joint-venture partners. Most of the components of our products are standard parts which are available from multiple supply sources at competitive prices. This, coupled with the lack of significant start-up costs attributable to the use of contractors, should minimize production and product costs. Currently, we have engaged one contract manufacturer, Ventrex, Inc., which has been manufacturing the Model 100 Modules used in our *Fidelity 100 Monitor System* since December 2005.

Research And Development

We currently conduct research and early stage development activities in-house and with engineering consultants. We retain title to all improvements or enhancements to our technology developed by or worked on by our engineering consultants under their contracts. Our research and development expenses for fiscal 2006 and 2005 were $2,694,958 and $1,328,482, respectively. None of these expenditures were borne by customers. We have budgeted approximately $1,465,000 for research and development for fiscal 2007.

Regulatory Overview

Current Status

Our heart monitors are Class II medical devices that must be cleared by the FDA in order to be marketed within the United States. We have, to date, received FDA 510(k) clearance under the FDA s abbreviated 510(k) submission format allowing us to market our Model 100 Module as a class II medical device as part of an overall ECG system, on the basis of it being substantially equivalent to other ambulatory monitor systems on the market which satisfy the industry s consensual ANSI/AAMI EC-38 standard for non-diagnostic monitor systems. We have similarly received 510(k) clearance for the *Fidelity 200* Event Recorder. Under the terms of the abbreviated 510(k) clearance, we are required to have supporting data in our files documenting that the heart monitoring device/system will conform to

performance standards before it can be marketed. As such, we may continue to perform engineering and design work on the heart monitoring device/system without resubmitting the system for further FDA 510(k) clearance unless we were to significantly alter the safety or effectives of the system as cleared by FDA. We do not currently anticipate this will occur.

FDA Regulations And Requirements

ECG heart monitor products are regulated in the United States by the Food and Drug Administration (the *FDA*) under the Medical Device Amendments of 1976 (the *Medical Device Act*), a section of the Federal Food, Drug & Cosmetic Act (the *FDC Act*). Under the Medical Device Act, medical devices are designated as Class I, II or III devices depending upon the level of control and review necessary to assure the safety and effectiveness of the device, which in turn is based upon the level of risk to the patient. ECG heart monitor products are classified as a Class II medical device, which cannot be sold in the United States unless the seller can first demonstrate or represent to the FDA pursuant to section 510(k) of the FDC Act, that the device is substantially equivalent to one or more similar devices currently on the U.S. market, referred to as predicate devices. To demonstrate substantial equivalency, the applicant must show that the new device (1) has the same intended use as the predicate device or devices, and (2) has either the same technological characteristics as the predicate device or devices, or has different technological characteristics that do not raise new questions of safety and effectiveness. A claim of substantial equivalence does not mean the new and predicate devices must be identical. Substantial equivalence is established with respect to intended use, design, energy used or delivered, materials, performance, safety, effectiveness, labeling, biocompatibility, standards and other applicable characteristics. Until the applicant receives clearance declaring a device substantially equivalent, it may not proceed to market the device within the United States.

The review period and FDA determination of substantial equivalence should be made within 90 days of submission of a 510(k) application, unless additional information or clarification or clinical studies are requested or required by the FDA. As a practical matter, the review process and FDA determination can take significantly longer than 90 days.

It should be noted that 510(k) clearance is a grandfather process. As such, 510(k) clearance does not imply that the safety, reliability and effectiveness of the medical device has been approved or validated by the FDA, but merely means that the medical device is determined to be substantially equivalent to a previously cleared commercially-related medical device.

As an alternative to the traditional 510(k) submission process, the FDA has also adopted an abbreviated or summary 510(k) submission process in cases where device-specific guidance documents or special controls have been established, or the FDA has recognized a relevant consensus standard, and the applicant certifies compliance or conformance with those documents, controls or standards. The applicant can procure abbreviated 510(k) clearance by either; (1) submitting a declaration that the applicant has in its files test data confirming that the medical device conforms to the consensus standard at the time of submission, or (2) submitting a statement that the medical device will conform to the consensus standard and that the applicant will have that supporting data in its files before marketing the device. Under either approach, the FDA reviewers will normally accept the declaration or statement

without requesting the submission of information demonstrating conformity with the standard. In the case of ECG heart monitor products, the FDA has recognized the EC-38 Ambulatory Electrocardiograph, EC-11 Diagnostic ECG, and EC-13 Arrhythmia Detection and Alarm standards adopted by the American National Standards Institute or ANSI and the Association for the Advancement of Medical Instrumentation or AAMI as voluntary consensus standards for Class II 510(k) submission purposes. In the event that we make improvements to a previously-cleared device, the FDA also has a process that allows us to compare the improved device to our previously-cleared device on an expedited basis, typically 30 days.

Both domestic and foreign manufacturers and distributors of medical devices that intend to market those devices in the United States must register their establishments with the FDA and annually update the registration. Registration provides the FDA with the location of medical device manufacturing facilities and importers. In addition, all medical devices that are manufactured and imported into the United States must be listed with the FDA. Medical device listing is a means of keeping the FDA advised of the generic categories of devices an establishment is manufacturing and marketing.

Manufacturing facilities must undergo FDA inspections to assure compliance with good manufacturing practices or GMPs set forth under the quality system or QS regulation promulgated by the FDA. The quality system regulation provides a basic framework to ensure that manufacturers of finished medical devices intended for commercial distribution in the United States have in place a quality system for the design, manufacture, packaging, labeling, storage, installation and services of finished medical devices intended for commercial distribution in the United States. These regulations require that various specifications and controls be established for devices; that devices be designed under a quality system to meet these specifications; that devices be manufactured under a quality system; that finished devices meet these specifications; that devices be correctly installed, checked and serviced; that quality data be analyzed to identify and correct quality problems and that complaints be processed. Thus, the quality system regulation helps assure that medical devices are safe and effective for their intended use. The FDA monitors device problem data and inspects the operations and records of device developers and manufactures to determine compliance with the GMPs.

Medical devices sold in the United States must also conform to general labeling requirements adopted by the FDA stipulating the content and format of product information that must be provided with the device, including information relating to the manufacturer of, and the intended use of the device, as well as directions for use of the device.

Under Medical Device Reporting or MDR regulations established by the FDA, manufacturers, distributors and users of medical devices are required to report complaints of device malfunctions or incidents of serious injuries or deaths associated with medical devices to the FDA. The MDR regulations provide a post-surveillance mechanism for the FDA and manufacturers to identify, monitor and track significant adverse events involving medical devices for the purpose of detecting and correcting problems in a timely manner.

The FDA has established regulations governing the voluntary recall of medical devices by a manufacturer or importer should it be determined that the devices are defective, present a risk of injury, or are

deceptive. Under the Medical Device Recall Authority regulation promulgated by the FDA, that agency also has the authority to order the involuntary recall of medical devices. Under the Medical Device Corrections And Removal regulations established by the FDA, manufacturers and importers are required to report to the FDA the occurrence of any correction or removal of a medical device where made to reduce a risk to health or a violation of the FDC Act.

The FDA has established regulations governing the import and export of medical devices. For a Class II medical device to be legally imported into the United States, it must meet FDA regulatory requirements. At this time, the FDA does not recognize regulatory approvals from other countries. Any Class II medical device may be legally exported from the United States without prior FDA notification or approval so long as it is in legal commercial distribution within the United States. Legal commercial distribution means that (1) the manufacturing establishment is registered with the FDA; (2) the device is listed with the FDA; (3) the sale of the device in the United States is authorized by either 510(k) notification or pre-market approval (PMA); (4) FDA labeling requirements are satisfied; and (5) the device is manufactured in accordance with GMP practices stipulated under the QS regulation. While the FDA does not place any restrictions on the export of these medical devices, certain countries may require written certification that a manufacturer or its devices are in compliance with U.S. law. In such instances the FDA will accommodate the exporter by providing a certificate of compliance called a Certificate for Foreign Government or CFG . If the medical device does not satisfying the foregoing requirements, it may be generally exported under two alternatives. First, if 510(k) clearance for the device is pending in the United States, it may be exported upon a showing that the device will reasonably obtain 510(k) clearance. In addition, the exporter must obtain a Certificate of Exportability from the FDA should the foreign country or consignee request assurance that the device complies with U.S. law. If the exporter does not intend to market the device in the United States, he may obtain a Certificate of Exportability to export the device based upon a showing that the device (1) complies with the laws of the foreign country; (2) meets the foreign purchaser s specifications; (3) is labeled for export on the shipping carton; and (4) is not sold or offered for sale in domestic commerce.

The failure of the manufacturer, importer, distributor or user to meet any of the FDA requirements imposed on it under the FDC Act or administrative regulations adopted thereunder by the FDA, may subject it to civil money penalties, administrative remedies or legal remedies under that Act or regulations.

Other U.S. Regulations And Requirements

Our heart monitor products and systems must also conform to a number of performance, safety, environmental and regulatory standards, such as those relating to electromagnetic interference, electromagnetic susceptibility, shock and current leakage, and transmission frequency. These standards include the IEC60601-2-27 requirements for the safety of electrocardiograph devices; the IEC 60601-1-2 requirements for safety and electromagnetic compatibility; the UL2601-1 medical equipment general requirements for safety, and FCC regulations under part 15, subpart C, governing allowable frequency ranges for different types of transmission devices, including medical devices.

The server and network we will use in our monitoring station to collect heart data must comply with the Health Insurance Portability and Accountability Act, which requires that we meet federally mandated requirements when handling patient data.

International Regulations And Requirements

The requirements for approval or clearance to market medical products in foreign countries vary widely. The requirements range from minimal requirements to requirements comparable to those established by the FDA. For example, many countries in South America have minimal regulatory requirements, while many others, such as Japan, have requirements at least as stringent as those of the FDA. Foreign governments do not always accept FDA approval as a substitute for their own approval or clearance procedures.

As of June 1998, the member countries of the European Union require that all medical products sold within their borders carry a Conformite Europeane Mark (*CE Mark*). The CE Mark denotes that the applicable medical device has been found to be in compliance with guidelines concerning manufacturing and quality control, technical specifications and biological or chemical and clinical safety. The CE Mark supersedes all current medical device regulatory requirements for European Union countries. In the case of a class II medical device, the CE Mark is granted based upon the manufacturer s certification of conformity with European Union guidelines, and does not require further examination of the product by a competent authority.

The FDA has issued to Signalife a Certificate to Foreign Government, which allows the importation of the Signalife *Fidelity 100 Monitor System* into Mexico, which conditions such importation upon written certification from the FDA that a firm or its devices are in compliance with U.S. law, including Good Manufacturing Practices and FDA labeling requirements.

We are in the process of applying for a CE Mark for our *Fidelity 100 Monitor System*, which will, upon grant, allow us to sell that product in the European Union. We are awaiting confirmation from the European Union as to the appropriate classification for the device, and anticipate that the CE Mark will be granted by the end of the first quarter of fiscal 2008.

Patents And Licenses

We hold patent number 5,678,559 issued by the United States Patent and Trademark Office for our core technology, the Signalife amplification methods. This patent, labeled *A Method and System of Recording Different Physiological Signal from a Human Body* , describes methods of discriminating different biomedical signals from ambient noise. This patent, which was assigned to us by ARC Finance Group as part of our acquisition of the Signal Technologies, was granted on October 21, 1997 and expires on October 21, 2014.

We also patent number 7,299,083 issued by the United States Patent and Trademark Office captioned *Electrode for and Method of, Indicating Signal Characteristics at Particular Positions in a Patient Body.* This patent, which describes electrodes for monitoring a patient s heart, was granted on November 20, 2007 and expires on November 20, 2024.

We also hold the following patent applications filed with the United States Patent and Trademark Office for which we are awaiting action: (1) number 10/293,105 captioned *System for, and Method of, Acquiring Physiological Signals of a Patient* filed on November 13, 2002, which describes technical methods for processing and amplifying different physiological signals; (2) number 10/611,696 captioned *Amplified System for Determining Parameters of a Patient* filed July 1, 2003; which describes methods of amplifying physiological signals while a patient is ambulatory without changing the characteristics of the signal; (3) number 10/664,711 captioned *Apparatus for, and Method of, Determining the Characteristics of a Patient s Heart* filed September 17, 2003, which describes the use of electrodes and amplifiers in a garment; and (4) number 11/008706 captioned *System for, And Method of, Monitoring Heartbeats of a Patient*, filed on December 9, 2004, which describes technical methods for monitoring a patient s heart.

Dr. Drakulic has also been issued or applied for patents in Canada, India, Japan, Mexico, Republic of Korea and the European Patent Convention for the patent captioned above *System for, and Method of, Acquiring Physiological Signals of a Patient* ; in Canada, India, Japan, Peoples Republic of China, and Republic of Korea for the patent captioned above, *Amplified System for Determining Parameters of a Patient* ; in Australia, Brazil, Canada, India, Japan, Mexico, People s Republic of China for the patent captioned above *Apparatus for, and Method of, Determining the Characteristics of a Patient s Heart* , and under the Patent Cooperation Treaty for the patent captioned above *System for, And Method of, Monitoring Heartbeats of a Patient* and *Electrode for and Method of, Indicating Signal Characteristics at Particular Positions in a Patient Body* .

Dr. Drakulic is the inventor named in our core patent and in each of the above patent applications, all of which are owned by Signalife. We are currently waiting for initial comment from the United States Patent and Trademark Office on each of the above patent applications, which generally occurs between two and two and one-half years after submission based upon current Patent and Trademark Office staffing levels. We anticipate that it will take three to four years for the above patent applications to issue**.**

Also included in the Signal Technologies agreement was an assignment of a license agreement dated December 9, 1993 between Dr. Drakulic and Teledyne Electronic Technologies pursuant to which Dr. Drakulic granted Teledyne a limited license to manufacture and sell certain products based upon an early version of the amplification technology. We do not expect to earn significant revenues from that license. To our knowledge Teledyne is not currently marketing any EEG devices using that early version of the amplification technology, and we do not anticipate that they will in the future market any such products due to technical advancements that they would be required to incorporate into the products. We believe that the incorporation of these advancements would effectively change the underlying product from that which was licensed. Based upon the foregoing, we do not believe the license will prevent Signalife from competing in the broader market for EEG diagnostic products.

Costs And Effects Of Compliance With Environmental Laws

There are no special or unusual environmental laws or regulations that will require us to make material expenditures or that can be expected to materially impact on the operation of our business.

Subsidiaries

On October 26, 2007, we formed Signalife Development, Inc., a Delaware corporation, to centralize and to perform research and development activities on behalf of the company and various entities we may form or joint ventures we may enter into.

On October 21, 2003, we formed Memonitor, Inc., a Delaware corporation, to act as a vehicle for the prospective application of our technology for the treatment and monitoring of Alzheimer s, Parkinson s and related neurological diseases of the brain. To date, Memonitor has not commenced business activities, and we will not activate this subsidiary until further developments relating to our pending studies of EEG applications for our technology.

Employees

We currently have twelve officers and other employees. None of our employees is represented by a labor union and we consider our relationships with our employees to be good.

PROPERTIES

Our executive offices and research and development facilities are located at 4705 Laurel Canyon Boulevard, Suite 203, Studio City, California. We lease these facilities, consisting of approximately 3,550 square feet, from Bershin Properties I, LLC on a month-to-month basis. We may terminate the lease upon 30 days notice and the payment of two months rent. We currently pay approximately $9,200 per month in base rent for these facilities, which we believe reflects market value, and are also required to pay our share of any increase in operating expenses. Operating expenses include expenses for maintenance of common areas, heating, air conditioning, plumbing, trash disposal, janitorial and security services and other like expenses.

We also lease offices at 531 South Main Street, Suite 301, Greenville, South Carolina 29601, previously used as our executive offices and now used as an administrative facility. We lease these facilities, consisting of approximately 4,029 square feet, from Falls Place, LLC, for a 36 month term that commenced June 1, 2005. The lease is terminable after 18 months upon 90 days notice provided the termination is attributable to our outgrowing the premises. Our monthly base rent for years one, two and three is $6,211, $6,336 and $6,463 per month, respectively, which we believe reflects market value. We are also required to pay our share of any increase in operating expenses over the base year of the lease. The lease is renewable for an additional 36 months subject to the payment of a 2% per year increase in base rent.

The aforesaid leased premises are in good condition and we believe they will be suitable for our purposes for at least twelve months. There is no affiliation between Signalife or any of our principals or agents and our landlords or any of their principals or agents.

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

General

The following discussion of our financial condition and results of operations should be read in conjunction with (1) our unaudited interim financial statements and their explanatory notes for the nine-month interim period ended September 30, 2007 included as part of this prospectus, and (2) our audited annual financial statements and explanatory notes for the year ended December 31, 2006 included as part of this prospectus. The results for the nine-month interim period ended September 30, 2007 are not necessarily indicative of the results to be expected for the full year ending December 31, 2007.

Overview

Signalife, Inc. is a medical device company focused on researching, developing and marketing medical devices which monitor and measure physiological signals in order to detect diseases that impact an individual s health. Physiological signals are small bioelectrical signals generated by the body.

Our initial product, the Signalife *Fidelity 100 Monitor System* or *Fidelity 100* , is a heart monitoring system that uses our proprietary Model 100 patient module to acquire, amplify and process physiological signals associated with a patient s cardiovascular system. The *Fidelity 100 Monitor System* is marketed an integrated system containing all of the components the Model 100 Module, electrode lead sets, and a personal computer with monitor and printer, which could either be in a desk top or laptop configuration. The *Fidelity 100* is principally used for clinical (resting) and in-patient ambulatory applications. For example, ECG data may be instantaneously acquired, processed, amplified and transmitted to the personal computer for analysis in stationary settings, such as while conducting ECG tests in resting or in-patient ambulatory settings or during surgeries.

Our initial marketing efforts for the *Fidelity 100* since its introduction have been extremely limited to date principally due to performance issues with third-party distributors and sales agents to whom we originally delegated sales authority, our limited internal sales and marketing support functions and personnel, and the focus of prior management on other activities. We have only recently launched a company-sponsored program to aggressively market and promote this product in the United States, in which we will rely upon new senior management and directors to market the *Fidelity 100* within the United States to selected marquee hospitals and physician groups, and are re-evaluating the use of independent distributors.

We are also currently working on a number of products using our proprietary signal acquisition and amplification technology that are in the late development stage and which we expect to introduce to market in 2008. These products include the Signalife *Fidelity 200 Event Recording System* or *Fidelity 200* , the Signalife *Fidelity 300 Holder Monitor* or *Fidelity 300* , the Signalife *Fidelity 400 Intracardiac Monitor* or *Fidelity 400* , and the Signalife *Cardiac Vest*.

Results of Operations

Fiscal 2006 As Compared To Fiscal 2005

Our revenues from products sales for fiscal 2006 were $190,170, as compared to $0 for fiscal 2005. Our cost of products sold, gross margin and gross profit for fiscal 2006 were $42,316, 78% and $147,854, respectively.

General and administrative expenses for fiscal 2006 were $10,806,932, representing a 74% increase over general and administrative expenses of $6,224,105 for fiscal 2005. The primary components of general and administrative expenses for fiscal 2006 were legal fees, general consulting fees, salaries and stock based compensation and marketing and media advertising. The $4,582,827 or 74% increase in general and administrative expenses was principally attributable to a $2,246,177 increase in salaries and compensation expense, a $1,191,037 increase in professional fees, including legal, accounting and investment banking; and a $1,396,902 increase in marketing and media advertising expense, partially offset by a decrease of $644,911 in consulting fees. Included in salaries and stock based compensation for fiscal 2006 were charges of $1,918,884 related to the fair value of employee options which vested in that period, with no similar expense in 2005. These charges resulted from the implementation of a new accounting principal during the current period. See Note 3, *Significant Accounting Policies*, contained in the explanatory notes to (1) our unaudited interim financial statements and explanatory notes for the nine-month interim period ended September 30, 2007 included as part of this prospectus, and (2) our audited annual financial statements and explanatory notes for the year ended December 31, 2006 included as part of this prospectus.

Research and development expenses for fiscal 2006 were $2,694,958, as compared to $1,328,482 for fiscal 2005. The $1,366,476 or 103% overall increase in research and development expenditures for fiscal 2006 was principally attributable to an increase in research and development consulting costs in the amount of $1,806,568, offset by a decrease in outside services of $219,877. During 2006 there was a shift of research and development activities to internal staff from outside consultants.

We had net other income of $1,637,910 for fiscal 2006, as compared to net other expense of $1,108,101 for fiscal 2005. The $2,746,011 improvement was principally attributable to $1,500,000 in co-exclusivity fees recognized under our since-terminated agreement with Rubbermaid, the elimination of $1,292,715 in interest expense, the elimination of $226,294 in warrant repricing and other financing costs associated with a debenture issued and paid 2005, and higher interest income attributable to higher average cash balances during fiscal 2006; partially offset by a elimination of $318,000 positive change in fair value of warrant liability.

We incurred a net loss before preferred dividends of $11,716,126 for fiscal 2006, as compared to $8,660,688 for fiscal 2005. The $3,055,438 or 35% increase in our net loss before preferred dividends for fiscal 2006 was attributable to the $4,582,827 increase in general and administrative expenses and the $1,366,476 increase in research and development expenses; partially offset by the $147,854 in gross profit and the overall $2,746,011 change in other income (expense).

We also incurred preferred dividend expense of $34,331 for fiscal 2006, as compared to $54,920 for fiscal 2005. The $20,589 or 37% decrease in preferred dividend expense was principally attributable to a decrease in preferred shares outstanding, resulting from conversions of preferred shares into common shares.

Nine Months Ended September 30, 2007 As Compared To Nine Months Ended September 30, 2006

The company had no revenues or corresponding costs from products sales for the nine-month interim periods ended September 30, 2007 and 2006, respectively.

General and administrative expenses for the nine-month interim period ended September 30, 2007 were $10,130,880, as compared to $7,441,667 for the corresponding interim period in fiscal 2006. The primary components of general and administrative expenses for the nine -month interim period ended September 30, 2007 were professional fees, general consulting fees, salaries and stock based compensation and marketing and public relations. The $2,689,213 or 36% increase in general and administrative expenses was principally attributable to a $2,565,240 increase in investor/public relations, a $154,793 increase in professional fees, including legal, accounting and investment banking; a $717,911 increase in consulting; partially offset by a decrease of $274,845 in salaries, a decrease of $234,167 in outside services and a decrease of $511,071 in stock compensation related to SFAS No. 123R.

Research and development expenditures for the nine-month interim period ended September 30, 2007 were $1,009,011, as compared to $692,388 for the corresponding interim period in fiscal 2006. The $316,623 or 46% overall increase in research and development expenditures for the nine-month interim period ended September 30, 2007 was principally attributable to an increase in research and development consulting costs in the amount of $163,081, and an increase of salaries of $232,518; offset by a decrease in outside services and professional fees of $84,151.

We had other income of $559,539 for the nine-month interim period ended September 30, 2007, as compared to $1,091,191 for the corresponding interim period in fiscal 2006. The $531,652 decrease was attributable a reduction of $500,000 in co-exclusivity fees recognized under our since-terminated agreement with Rubbermaid, together with a reduction of $31,652 in interest income.

We incurred a net loss before preferred dividends of $10,580,352 for the nine-month interim period ended September 30, 2007, as compared to $7,042,864 for the corresponding interim period in fiscal 2006. The $3,537,488 or 50% increase in our net loss before preferred dividends for the nine-month interim period ended September 30, 2007 was attributable to the $2,689,213 increase in general and administrative expenses, the $316,623 increase in research and development expenses and the $531,652 decrease in other income.

Plan Of Operation

Our overall plan of operation for the twelve-month period going forward commencing as of October 1, 2007 is to (1) ramp-up domestic and international commercial marketing and sales efforts with respect to our *Fidelity 100 Monitor System*, both through our internal sales staff and independent distributors, (2) finalize development and commence marketing of our *Fidelity 200 Event Recording*

System , *Fidelity 300 Holder Monitor*, *Fidelity 400 Intracardiac Monitor* and *Signalife Cardiac Vest* products, including participation in potential monitoring center opportunities; and (3) continue evaluation activities in connection with the development of an EEG monitor device.

In connection with the preparation of our most recent interim financial statements, we budgeted $8,478,000 anticipated cash expenditures for the twelve-month period commencing October 1, 2007, including (1) $760,000 to cover our projected sales, marketing and product awareness expenses (excluding any sales and marketing, manufacturing and fulfillment costs associated with products sold during the twelve-month period, which we anticipate would be covered by any revenues associated with such sales): (2) $6,285,000 to cover our projected general and administrative expenses during this period; and (3) $1,433,000 for research and development activities. The aforesaid budgeted cash expenditures exclude any manufacturing, sales and marketing (including sales commissions) and fulfillment costs associated with products sold during the twelve-month period, which we anticipate would generate positive cash flow after payment of such costs. Management is constantly reviewing and revising the aforesaid budget based upon developments, and the aforesaid budget will change accordingly.

We anticipate that we will add additional staff, either as employees or consultants, principally in direct sales marketing and distribution areas, as sales activities increase. We also anticipate that we will add additional accounting personnel, including a permanent chief financial officer, over this twelve-month period. We do not currently have an estimate as to the number or range of employees or consultants that would be added.

Our anticipated costs and projected completion dates described above are estimates based upon our current business plan, known resources and market dynamics. Our actual costs or actual project completion dates could vary materially from those projected. Our management team is continually re-evaluating our core business plan as it relates to marketing and developing our monitoring products and identifying new applications and markets for our technology. We may at any time decide to terminate our ongoing development plans with respect to products and services if they are deemed to be impracticable or not to be commercially viable. Further changes to our current business plan could also result, such as the acquisition of new products or services or the decision to manufacture our own products, resulting in a change in our anticipated strategic direction, investments, and expenditures. See that section of this prospectus captioned *Forward-Looking Statements* .

Liquidity And Capital Resources

Historical Sources of Capital Resources

We have historically financed our operations through a combination of (1) gross proceeds from contributed capital, including the sale of our common shares, series A preferred shares and common share purchase warrants for cash, and the exercise of stock purchase warrants for cash; (2) the issuance of common shares or common share purchase warrants in payment of the provision of services; (3) gross proceeds from the sale of a debenture which was subsequently converted into common shares; (4) the grant of non-exclusive rights to market our products and services; and (5) advances against our line of

credit. Included in the foregoing are the following significant financing transactions as reported in (1) our audited annual financial statements and explanatory notes for the year ended December 31, 2006 included as part of this prospectus, and (2) our unaudited interim financial statements and explanatory notes for the nine-month interim period ended September 30, 2007 included as part of this prospectus:

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On March 31, 2005, we sold a total of 1,562,500 unregistered common shares, together with common share purchase warrants entitling the holder to purchase 1,500,000 restricted common shares, to Trellus Partners, LP for the sum of $5,000,000 pursuant to a private placement. The warrants are exercisable at $1.60 per share, contain cashless exercise provisions, and lapse if unexercised on or before March 31, 2010. As part of the transaction, we agreed to file a registration statement with the SEC on or before April 20, 2005 to register the common shares sold and the common shares issuable upon the conversion of the warrants. We further agreed to reduce the exercise price of the warrants to $1.20 per share should we fail to file the registration statement on a timely basis. Subsequent to the private placement, we procured an extension of the filing date to June 30, 2005, and filed the registration statement with the SEC on June 29, 2005. The registration statement was declared effective on July 22, 2005.

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On April 8, 2005, we sold a total of 937,500 unregistered common shares, together with common share purchase warrants entitling the holder to purchase 900,000 restricted common shares, to Lagunitas Partners LP, Gruber & McBaine International, Jon D. and Linda W. Gruber, and J. Patterson McBaine for the sum of $3,000,000 pursuant to a private placement. The warrants are exercisable at $1.60 per share, contain cashless exercise provisions, and lapse if unexercised on or before April 8, 2010. As part of the transaction, we agreed to file a registration statement with the SEC within 20 days to register the common shares sold and the common shares issuable upon the conversion of the warrants. We further agreed to reduce the exercise price of the warrants to $1.20 per share should we fail to file the registration statement on a timely basis. Subsequent to the private placement, we procured an extension of the filing date to June 30, 2005, and filed the registration statement with the SEC on June 29, 2005. The registration statement was declared effective on July 22, 2005.

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On March 26, 2006, we entered into a Sales and Marketing Services Agreement with Rubbermaid Inc. (*Rubbermaid*), a subsidiary of Newell Rubbermaid Inc. Pursuant to the terms of this agreement, we received a $2,000,000 fee upon execution for the grant of the right to act as Signalife s exclusive third-party agent market our *Fidelity 100 Monitor System*. This agreement was subsequently terminated on January 24, 2007.

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On October 31, 2006, we closed several private placements to accredited institutional investors pursuant to which we received gross proceeds of $2,500,000 from Trellus Partners, LP, an existing shareholder, and its affiliates, and $430,000 from three new shareholders through the sale of a total of 1,890,322 common shares priced at $1.55 per share, together with five-year warrants entitling the holders to purchase a total of 756,129 common shares at $2.23 per share. Maxim Partners, LLC acted as placement agent with respect to procuring the three new shareholders, and was paid a cash commission of $32,250, or 7.5% of the proceeds raised from the new shareholders, plus five-year placement agents warrants entitling it to purchase units comprised of 27,742 common

shares at $1.55 per share, plus warrants entitling it to purchase a total of 11,097 common shares at $2.23 per share.

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Since January 2007 until June 30, 2007, we have drawn a total of $202,148 in advances against our $10 million line of credit with S.E.S. Capital, LLC. Pursuant to our rights under the credit facility, we intend to convert these advances into common shares. For a description of this credit facility, see *Capital Resources Going Forward* below.

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On August 6, 2007, Signalife entered into a series of related transactions with YA Global Investments, L.P. (*YA Global*) which closed on August 16, 2007, including a Securities Purchase Agreement, a Standby Equity Distribution Agreement, and Registration Rights Agreements, pursuant to which:

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For the sum of $2,000,000 pursuant to the Securities Purchase Agreement, YA Global purchased: (1) 2,956,830 unregistered common shares (based upon the formula of $2,000,000 divided by 95% of the average VWAP of Signalife s common stock for the twenty-day period prior to the date of the Securities Purchase Agreement;), (2) five-year common stock purchase warrants entitling YA Global to purchase 1,000,000 unregistered common shares at a price of $1 per share, and (3) five-year common stock purchase warrants entitling YA Global to purchase 500,000 unregistered common shares at a price of $2 per share. The aforesaid warrants are exercisable in cash, except to the extent that the underlying common shares are not registered or in the event of an event of default as defined under the Securities Purchase Agreement. The aforesaid warrants also carry full-ratchet anti-dilution rights. The aforesaid warrants cannot be exercised to the extent it would cause the total shares beneficially held by YA Global Investments and its affiliates to exceed 9.99% of our then outstanding common shares, calculated in accordance with Section 13(d) of the Exchange Act. Such prohibition expires sixty days prior to the expiration date for the warrants, and may also be waived by YA Global Investments upon the provision of 65 days prior notice. As a result of these provisions, by YA Global Investments disclaims beneficial ownership in excess of 9.99% of our outstanding common shares.

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Pursuant to the terms of the Standby Equity Distribution Agreement, YA Global Investments granted to Signalife the right at its election without any obligation to do so, over a three-year period, to incrementally sell up to $100,000,000 in common shares to YA Global Investments at a price equal to 97% of the lowest daily VWAP for Signalife s common stock on its primary market over a five-day trading period (the *pricing period*) following the date of notice of Signalife s exercise of its selling rights. For further information on the terms of the Standby Equity Distribution Agreement, see *Capital Resources Going Forward* below.

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Pursuant to the terms of the Standby Equity Distribution Agreement, Signalife issued to YA Global Investments 1,404,495 unregistered common shares as compensation for entering into the Equity Agreement and committing to selling shares to YA Global Investments thereunder.

In connection with the aforesaid transactions, Signalife entered into a Placement Agent Agreement with Newbridge Securities Corporation, a NASD registered broker-dealer, which acted as Signalife s exclusive placement agent in the aforesaid transaction. Under that agreement, Signalife issued to Newbridge 14,405 unregistered common shares as compensation for acting as Signalife s exclusive placement agent.

Capital Resources Going Forward

We have approximately $1,500,000 of cash on hand as of September 30, 2007 to fund our operations going forward. We also have in place two different types of credit facilities that will allow us to raise capital to the extent necessary: a Standby Equity Distribution Agreement dated August 6, 2007 with YA Global Investments, and a line of credit entered into on January 25, 2007 with S.E.S. Capital, LLC (*SES Capital*).

Under our Standby Equity Distribution Agreement with YA Global Investments, we have the right at our election without any obligation to do so, over a three-year period commencing August 6, 2007, to incrementally sell or put up to $100,000,000 in common shares to YA Global Investments at a price equal to 97% of the lowest daily VWAP for Signalife s common stock on its primary market over a five-day trading period (the *pricing period*) following the date of notice of Signalife s exercise of its selling rights. The principal conditions and restrictions under this arrangement is that under no circumstances can Signalife put common shares to YA Global Investments (1) in the event that such shares are not issuable pursuant to an effective registration statement; or (2) to the extent it would (i) cause the total shares beneficially held by YA Global Investments and its affiliates to exceed 9.99% of our then outstanding common shares, calculated in accordance with Section 13(d) of the Exchange Act; or (ii) exceed 20% of our outstanding shares as of the date of the agreement without procuring shareholder approvals or consents in accordance with AMEX rules.

Under our line of credit with SES Capital, we can draw up to $10 million at any time over a three-year term. Interest will accrue on any advance at the rate of 7% per annum. Under the underlying Loan Agreement, SES Capital will at all times maintain $1 million in a bank account under which Signalife may withdraw the advances, and Signalife may withdraw up to $100,000 with respect to each such advance. When Signalife withdraws an advance, SES Capital will have 30 days to replenish the account. Principal and interest is payable in a balloon payment on February 25, 2010, although Signalife may pay off principal and interest at any time without penalty. To date, we have drawn $205,686 against the line of credit. Given the Standby Equity Distribution Agreement and certain rights of refusal granted to YA Global Investments, we do not intend to draw-down on the S.E.S. line of credit in the near future.

Signalife reserves the right at any time to fully or partially convert unpaid principal and interest into common shares at a conversion rate equal to $3.15 per share or, if greater, the fair market value of those shares on AMEX as of the date of a draw request. As additional compensation for any conversion, Signalife will issue SES Capital a five-year warrant entitling it to purchase a number of common shares equal to 25% of the shares received upon conversion at the same price as the conversion price. These warrants are subject to standard capital adjustments, but do not contain price adjustments predicated on future offerings, including weighted-average or full-ratchet price adjustments.

As compensation for the extension of the line of credit, Signalife issued to SES Capital a five-year warrant entitling it to purchase 200,000 common shares at $2.15 per share, reflecting a 12% premium to the fair market value of those shares on AMEX as of the date of the Loan Agreement. These warrants are subject to standard capital adjustments, but do not contain price adjustments predicated on future offerings, including weighted-average or full-ratchet price adjustments.

We believe that our cash currently on hand, together with anticipated revenues and borrowings against our standby equity purchase arrangement with YA Global Investments as discussed above and our line of credit with SES Capital discussed above, will be sufficient to cover our anticipated cash expenditures for the twelve-month period going forward commencing as of October 1, 2007 as discussed above in *Plan Of Operation*. We have taken and will continue to take steps to preserve our cash, including making payments to selected service providers and employees in common shares in lieu of cash. Should our costs and expenses prove to be greater than we currently anticipate, or should we change our current business plan in a manner that will increase or accelerate our anticipated costs and expenses, such as through an acquisition of new products, the depletion of our working capital would be accelerated. To the extent it becomes necessary to raise additional cash in the future as our current cash and working capital resources as discussed above are depleted, we anticipate we would raise it the public or private sale of debt or equity securities, the procurement of advances on contracts or licenses, funding from joint-venture or strategic partners, debt financing or short-term loans, or a combination of the foregoing. We may also seek to satisfy indebtedness without any cash outlay through the private issuance of debt or equity securities. Other than our line of credit with SES Capital as discussed above and the pending investment and standby equity purchase arrangement with YA Global Investments as discussed above, we currently do not have any binding commitments for, or readily available sources of, additional financing. We cannot give you any assurance that we will be able to secure the additional cash or working capital we may require to continue our operations.

Our anticipated costs are based upon our current business plan and estimates. Our actual costs could vary materially from those estimated, particularly in the event that the projected sales revenues going forward upon which we have calculated those costs do not materialize. Further, we could also change our current business plan resulting in a change in our anticipated costs. See the discussion concerning forward-looking statements in that section of this prospectus captioned *Forward-Looking Statements*.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities For a description of those and other generally accepted accounting policies that we follow, see Note 3, *Significant Accounting Policies*, contained in the explanatory notes to (1) our unaudited interim financial statements and explanatory notes for the nine-month interim period ended September 30, 2007 included as part of this prospectus, and (2) our audited annual financial statements and explanatory notes for the year ended December 31, 2006 included as part of this prospectus.

On an ongoing basis, we evaluate our estimates, including those related to reserves, deferred tax assets and valuation allowance, impairment of long-lived assets, and fair value of equity instruments issued to consultants for services. We base our estimates on historical experience and on various other assumptions that we believe 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; however, we believe that our estimates, including those for the above-described items, are reasonable.

Recent Accounting Pronouncements

In February of 2007 the Financial Accounting Standards Board (*FASB*) issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities Including an amendment of FASB Statement No. 115*. The statement permits entities to choose to measure many financial instruments and certain other items at fair value. The objective is to improve financial reporting by providing entities with the opportunity to mitigate volatility in reported earnings caused by measuring related assets and liabilities differently without having to apply complex hedge accounting provisions. The statement is effective as of the beginning of an entity s first fiscal year that begins after November 15, 2007. We are analyzing the potential accounting treatment of this pronouncement.

In July 2006, the FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No.109*. Fin No. 48 prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Benefits from tax positions should be recognized in the financial statements only when it is more likely than not that the tax position will be sustained upon examination by the appropriate taxing authority that would have full knowledge of all relevant information. The amount of tax benefits to be recognized for a tax position that meets the more-likely-than-not recognition threshold is measured as the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. Tax benefits relating to tax positions that previously failed to meet the more-likely-than-not recognition threshold should be recognized in the first subsequent financial reporting period in which that threshold is met or certain other events have occurred. Previously recognized tax benefits relating to tax positions that no longer meet the more-likely-than-not recognition threshold should be derecognized in the first subsequent financial reporting period in which that threshold is no longer met. Fin No. 48 also provides guidance on the accounting for and disclosure of tax reserves for unrecognized tax benefits, interest and penalties and accounting in interim periods. We adopted Fin No. 48 effective January 1, 2007. The impact of the adoption of Fin No. 48 did not have a material impact on the company s financial statements.

LEGAL PROCEEDINGS

We have summarized below (1) any legal or governmental proceedings relating to our company or properties to which we are a party which we consider to be material and which are pending as of the date of this prospectus, and (2) any proceedings to which any of our directors, executive officers or affiliates are a party adverse to us or which have a material interest adverse to us which are pending as of the date of this prospectus.

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On March 30, 2006, a complaint was filed in the Los Angeles County Superior Court against Signalife, each of its current directors, ARC Finance Group, Tracey Hampton, Mitchell Stein, and Atlas Stock Transfer Corporation, entitled *Marvin Fink, individually, and Marvin Fink as Trustee of the Fink Family Trust, Plaintiffs, vs. Signalife, Inc., et al, Defendants*. In the complaint, Mr. Fink alleges various causes of action including, without limitation, breach of contract, breach of the implied covenant of good faith and fair dealing, breach of fiduciary duty, deceit, fraud, and negligence, and seeking damages and a mandatory injunction forcing Signalife to accept a legal opinion letter from Mr. Fink's legal counsel and to remove a restrictive legend from his Signalife common shares. The gravamen of the complaint is that the defendants induced Mr. Fink to enter into an employment agreement with Signalife in 2002 providing for payment of compensation in the form of 2,100,000 shares of restricted stock, but have since refused to remove the restrictive legend from the shares to allow Mr. Fink to sell the shares on the public market under SEC Rule 144. Signalife believes that Mr. Fink's claims are without basis and is vigorously defending the action. On May 30, 2006, the company and other defendants filed Demurrers and Special Motions to Strike attacking each cause of action and the complaint as a whole as legally deficient and lacking in evidentiary support, and seeking dismissal of the action in its entirety on this and other grounds. A Motion to Quash challenging personal jurisdiction was also filed on behalf of certain of the individual defendants, which the Court granted, resulting in dismissal of four directors from the suit. Subsequently, plaintiffs filed a First Amended Complaint, to which defendants filed renewed Demurrers and Special Motions to Strike. At a hearing held on September 1, 2006, the Court denied defendants' Special Motions to Strike, and granted in part and denied in part the Demurrers, with leave to amend. Defendants filed a Notice of Appeal of the Court's ruling denying their Special Motions to Strike which has resulted in a stay of the lawsuit pending the appeal. Mr. Fink filed a motion to dismiss the appeal as frivolous and a motion for sanctions, which the Court of Appeal summarily denied, and the appeal remains pending. While Signalife denies any liability to Mr. Fink and intends to vigorously contest Mr. Fink s claims, we cannot make an evaluation of the likely outcome of the case or the amount or range of any possible loss or recovery.

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On January 24, 2007, Signalife filed a complaint in the General Court of Justice of the State of North Carolina captioned *Signalife, Inc., plaintiff, vs Rubbermaid Inc., Newell Rubbermaid Inc., Gary Scott and David Hicks*, Superior Court Division of the General Court of Justice of the State of North Carolina, County of Mecklenburg, alleging fraud, breach of fiduciary duty, breach of contract and unfair trade practices, and seeking damages of $20 million. Signalife s complaint is grounded in the failure and refusal of Rubbermaid, Inc. (*Rubbermaid*), a subsidiary of Newell Rubbermaid Inc., as Signalife s exclusive third-party agent under a Sales and Marketing Services Agreement (the *Marketing Agreement*) entered into with Rubbermaid on March 26, 2006, to put together at its cost a national sales force to market Signalife s *Fidelity 100 Monitor System*, and to advertise and otherwise use commercially reasonable efforts to vigorously promote the sale and marketing of the *Fidelity 100*, as required under the Marketing Agreement. Rubbermaid concurrently filed a complaint against Signalife on January 24, 2007 in the United States District Court of North Carolina captioned *Rubbermaid*

Incorporated, plaintiff, vs. Signalife, Inc., defendant; United States District Court, Western District, North Carolina, alleging negligent misrepresentation, breach of representation and warranty, and breach of contract, and seeking damages in excess of $75,000. Rubbermaid s principal factual allegation is that Signalife failed to meet projections that the company would independently sell 300 *Fidelity 100* units in 2006. Rubbermaid makes this assertion notwithstanding that there is no representation, covenant or undertaking in the extensive, comprehensive and thoroughly negotiated Marketing Agreement requiring Signalife to sell any *Fidelity 100* units whatsoever, much less 300 units, and that the Marketing Agreement also contains an integration clause that would preclude Rubbermaid from making any such claim if not otherwise contained in the agreement. Rubbermaid also alleges, without providing any support, that the *Fidelity 100* was not commercially ready for sale. Rubbermaid makes this assertion notwithstanding extensive product due diligence by Rubbermaid in entering into the Marketing Agreement, the fact that Signalife has been actively selling the units through its in-house sales staff, and the fact that Signalife has provided to Rubbermaid extensive documentation as to all operational and technical issues, including attestation as to the commercial use and results of the *Fidelity 100* by a number of physicians who use the units in their practices. Signalife denies the validity of Rubbermaid s allegations, and believes that they are merely a pretext raised by Rubbermaid in anticipation of Signalife s complaint, and to otherwise enable Rubbermaid to avoid performing its obligations under the Marketing Agreement (which Signalife had previously estimated in its SEC filings would cost Rubbermaid approximately $4-5 million to perform). On January 29, 2007, Signalife filed a motion in Rubbermaid's federal court lawsuit to dismiss that lawsuit or, in the alternative, stay the lawsuit pending the resolution of the lawsuit filed in state court by Signalife. On September 20, 2007, a federal magistrate granted Signalife s motion and stayed the federal lawsuit filed by Rubbermaid. On October 10, 2007, Rubbermaid filed a motion for reconsideration, asking the judge hearing the federal case to dissolve the stay entered by the magistrate. The federal court has not ruled on Rubbermaid s motion for reconsideration. On February 2, 2007, Rubbermaid removed Signalife's state court lawsuit to federal court, claiming diversity of citizenship jurisdiction. On February 27, 2007, Signalife filed a motion to remand the case back to the state court. On September 30, 2007, a federal magistrate granted Signalife s motion to remand, ordering that Signalife s state court lawsuit be returned to state court. Subsequently, a state trial court administrator issued a scheduling order setting a trial date for May 27, 2008. However, on October 25, 2007, Rubbermaid filed a motion to dismiss the state court lawsuit filed by Signalife on the grounds of a prior pending action, referring to Rubbermaid s federal lawsuit. The state court has not ruled on Rubbermaid s motion to dismiss. Meanwhile, discovery is proceeding in the state court action. On February 20, 2007, Rubbermaid filed a motion in the Signalife state court action to dismiss Signalife's fraud, breach of fiduciary duty, unfair trade practices and alter ego claims, and to dismiss Newell Rubbermaid, Inc., Gary Scott and David Hicks as defendants The motion to dismiss would not affect Signalife's breach of contract claim against Rubbermaid. On November 23, 2007, Signalife filed an Amended Complaint, setting forth in more detail the facts giving rise to its claims. On November 30, 2007, the state case was assigned to a Special Superior Court Judge

for Complex Business Cases. The state court has not ruled on Rubbermaid's motion to dismiss. While Signalife denies any liability to Rubbermaid and intends to vigorously contest Rubbermaid claims and also intends to pursue the company s claims, we cannot make an evaluation of the likely outcome of the case or the amount or range of any possible loss or recovery.

MANAGEMENT

Identity

The following table identifies our current executive officers and directors, their respective offices and positions, and their respective dates of election or appointment:

Name And Municipality Of Residence	Age	Office	Initial Election Or Appointment Date
Lowell T. Harmison, Ph.D. Washington, D.C.	70	President and Chief Operating Officer, and Director	June 6, 2003
Kevin F. Pickard Valencia, California	44	Interim Chief Financial Officer	October 23, 2006
Budimir S. Drakulic, Ph.D. Los Angeles, California	57	Chief Technology Officer	October 15, 2002
Ellsworth Roston Los Angeles, California	84	Director	November 1, 2002
Jennifer Black Lake Oswego, Oregon	52	Director	January 20, 2004
Rowland Perkins Los Angeles, California	72	Director	August 23, 2005
Charles H. Harrison Henderson, Nevada	65	Director	October 23, 2006
Robert E. Windom, M.D. Sarasota, Florida	77	Director	July 11, 2007
Jay A. Johnson, M.D., M.A., F.A.C.C. Santa Cruz, California	47	Director	July 11, 2007

Dr. Harmison provides his services as an executive officer on an at will basis, although we are presently under discussions with Dr. Harmison as to retaining him on a full-time permanent basis. Dr. Drakulic provides his services as an executive officer on a full-time permanent basis. Mr. Pickard provides his services as an executive officer on a non-exclusive part-time contract basis through Pickard & Company, CPA s, P.C. We anticipate that Mr. Pickard will

devote approximately 5-25% of his time, or

two to fifteen hours per week, to Signalife depending upon the nature of the financial projects he is working on.

There are no family relationships between any two or more of our directors or executive officers. There is no arrangement or understanding between any of our directors or executive officers and any other person pursuant to which any director or officer was or is to be selected as a director or officer, and there is no arrangement, plan or understanding as to whether non-management shareholders will exercise their voting rights to continue to elect the current board of directors. There are also no arrangements, agreements or understandings to our knowledge between non-management shareholders that may directly or indirectly participate in or influence the management of our affairs.

Business Experience

Dr. Lowell T. Harmison has served as a director since June 6, 2003, and as our President and Chief Operating Officer since July 2, 2007. Dr. Harmison previously served as our interim Chief Executive Officer from March 26, 2005 to April 15, 2005, and as interim Co-Chief Executive Officer thereafter until July 15, 2005. Dr. Harmison has also served as a Senior Advisor since February of 2003. Dr. Harmison has a very distinguished 35 year career in the field of biomedicine. Most recently, Dr. Harmison has served as a director and as chairman of the board of World Doc Foundation, a private foundation promoting health education and expanded knowledge of telemedicine, since June 2002. Dr. Harmison has also served as a director and chief executive officer of ProCell Corporation, a cancer research company, since June 2000, and as a director of pHA Bio Remediation, an environmental restoration company, since 1997. Dr. Harmison also served as chairman of Sequella Foundation, which promotes research into tuberculosis, from 1997 to 2001, and served as a director of Sequella Inc., a research and development company for tuberculosis products, from 1997 to 2000. Dr. Harmison is the holder of the first domestic and foreign patents on the fully implantable artificial heart; and served as Chief Executive Officer of USET, Inc. from 1987 to 1989. Dr. Harmison also served as the Director of the Robert Maxwell Foundation, a private foundation operating internationally and consisting of 21 operating companies, from 1987 to 1989. He also served as the Principal Deputy Assistant Secretary for Health of the U.S. Public Health Service, Department of Health and Human Services. Dr. Harmison has a Ph. D. from the University of Maryland and a B.S. and M.S. from West Virginia University. He was also given an honorary Doctor of Science degree from West Virginia University.

Mr. Kevin F. Pickard has provided his services as our interim Chief Financial Officer since October 13, 2006 on a contract basis. Since 1988, Mr. Pickard has been a principal officer and owner of Pickard & Green CPAs, P.C. (formerly Pickard & Company, CPA s, P.C.), an accounting firm formed by Mr. Pickard that specializes in providing SEC accounting and other management consulting services for small to medium sized companies, including preparing required SEC filings for public companies, due diligence on potential acquisitions, preparing projections and business plans, assisting with restructuring of companies, and positioning companies for initial public offerings. Mr. Pickard also acts as Interim Chief Financial Officer for Universal Guardian Holdings, Inc., an OTCBB company which provides security products, systems and services. Mr. Pickard was a Partner with Singer Lewak Greenbaum & Goldstein, LLP, from 1996 to 1998, where is co-managed the firm s securities practice group. Mr. Pickard also spent over nine years with Coopers & Lybrand, L.L.P. (currently PricewaterhouseCoopers, LLP),

where he focused on the auditing companies in the insurance, high-tech and manufacturing industries. Mr. Pickard holds Bachelors of Science and Masters degrees in Accounting from Brigham Young University.

Dr. Budimir S. Drakulic has served as our Chief Technology Officer since October 15, 2002. Dr. Drakulic has more than 25 years of experience in the design, development and integration of hardware and software modules for biomedical microelectronic circuits and systems. From 1997 through February of 2002, Dr. Drakulic was research and development principal for Advanced Heart Technologies, Inc., and its predecessor Advanced Heart Monitoring. From February of 2002 until October 15, 2002, Dr. Drakulic was involved in independent research. Dr. Drakulic was the Consultant and Chief Scientist, Medical Device Business Unit for Teledyne Electronic Technologies from 1992 through 1997. Before that, he held numerous positions affiliated with the University of California at Los Angeles, including Visiting Assistant Professor with the Electrical Engineering Department and Director of the Microelectronics Development Lab at the Crump Institute for Medical Engineering. He holds a Bachelor of Science degree in electrical engineering from the University of Belgrade, Yugoslavia. He also holds a Masters degree and a Ph. D. in Electronic and Biomedical Engineering from the same university. Dr. Drakulic was the recipient of the Ralph and Marjorie Crump Prize for Excellence in Medical Engineering from UCLA in 1985, and was a Research Fellow with the Crump Institute for Medical Engineering at UCLA. The Crump Prize is given to the recipient deemed to have performed the best biomedical engineering research in the United States for that year.

Mr. Ellsworth Roston has served as a director since November 1, 2002. Mr. Roston has practiced patent law since 1943, and served as Of Counsel to the patent firm of Fulwider Patton Lee & Utecht from 1997 through June 2007. Mr. Roston has a history of assisting technology companies during their development stages. Most recently, Mr. Roston has served as a director of Natgram, Inc., an internet software developer, since 1998, Amerlin Inc., a pet house/kennel manufacturer, since 1996, and American Legal Net, a provider of legal forms, since April 2004. Mr. Roston also served as a director of Rokenbok Corporation, a toy manufacturer, from 1996 through February 2004, and of Dome Industries, an electronic hardware manufacturer, from 1991 through 2002. Mr. Roston was one of three founders of Brooktree Corporation, and served on its board of directors for 15 years until it was purchased by Rockwell Corporation in 1998. Mr. Roston received his undergraduate degree and his law degree from Yale University.

Ms. Jennifer Black has been President of her own business, Jennifer Black & Associates LLC., since September 2003. Her firm provides independent research for institutional clients. Previously, since 1979, Ms. Black was with Black & Co., where she was responsible for research coverage on the apparel and specialty retail industries. Ms. Black was President of Black & Co. when First Security Van Kasper acquired it in April 2000. Subsequently, Wells Fargo Securities acquired First Security Van Kasper in September 2000. Ms. Black left Wells Fargo Securities in September 2003. Ms. Black served on the State of Oregon Governor s Council of Economic Advisors from 1999 to January 2006. In addition, Ms. Black sat on the Business Advisory Council for Portland State University from 2004-2007. In 1999, Ms. Black was ranked #1 by the Wall Street Journal under textiles and apparel as a Wall Street All Star Analyst. In 1997, the Reuters Large Company Investment Research Survey rated her the number one analyst in the

nation. Ms. Black attended Washington State University, University of Oregon and Portland State Universities.

Mr. Rowland Perkins has served as a director since August 23, 2005. Mr. Perkins has been involved in the entertainment industry for more than 40 years. Since 1995, Mr. Perkins has been President of Double Eagle Entertainment, Inc., a company he established to develop and Produce feature, network and cable television films. Mr. Perkins was the founding President of Creative Artists Agency, Inc., a company he co-founded in 1975 to represent all areas of creative talent in the entertainment industry. From 1959 to 1975, Mr. Perkins was an executive with the William Morris Agency, Inc. At William Morris, Mr. Perkins established and led its TV Talent Division as Director, and then organized and led its Creative Services Department as Vice President. Since 2001, Mr. Perkins has been Chairman of the Board of NPOWR Digital Media, Inc., a privately-held tech company which is promoting stimTV , which allows consumers to personalize their entertainment choices automatically on the broadband market. Mr. Perkins also serves as a consultant, executive producer and the U.S. representative for Eagle Pictures SpA, an Italian film production and distribution company involved in the motion picture and television businesses internationally. He also continues to executive produce select films. In addition to the above, Mr. Perkins has been a long time member of the Academy of Television Arts and Sciences and has served on its Board of Governors. He also has been a long time member of the Hollywood Radio and Television Society and served on its Board of Directors. He has also served for fifteen years on the USC Libraries Scripter s Award selection panel that annually selects the best screenplay/novel adaptation each year and gives awards to the novel s author and the screenwriter. Mr. Perkins graduated from UCLA with a Bachelors of Science degree in business administration ,and also holds an Honorary PhD in Media Communications from Pacific Western University.

Mr. Charles H. Harrison has served as a director since October 23, 2006. Mr. Harrison is a certified public accountant with over 35 years of accounting and business management experience focusing on firms in the healthcare business. Since June 2004, Mr. Harrison has been Chief Operating Officer at the Boulder City Hospital located in Boulder City, Nevada. Prior to that, from 1996 to 2004, Mr. Harrison provided independent business consulting services to various hospitals and other healthcare providers. From 1969 to 1996, Mr. Harrison was an accountant with Arthur Andersen LLP, having risen to the position of Partner in Charge of Healthcare for the firm s Metropolitan Southern California practice. Mr. Harrison holds a Bachelors of Science degree in Accounting and a Masters of Business Administration degree in Finance from the University of Southern California.

Dr. Robert E. Windom has served as a director since July 11, 2007. Dr. Windom, who received his Medical degree from Duke University, practiced cardiology and internal medicine from 1960 to 1986 in Sarasota, Florida. From 1986 to 1989, Dr. Windom was Assistant Secretary for Health at the United States Department of Health and Human Services, and since 1989 has been a health care consultant and engaged in numerous social, medical, humanitarian and educational activities and programs. Currently, Dr. Windom also serves as a Clinical Professor on the voluntary faculty of the Department of Internal Medicine, University of South Florida, and as a Courtesy Professor, at the University of South Florida College of Public Health. Dr. Windom is also currently the President of the World ImmunoSociety for Health Foundation, a member of the Board of the Florida Medical Directors Association, and a Special

Advisor to the Secretary of the Florida Department of Health, and a Fellow of the American College of Physicians and the American College of Cardiology. Dr. Windom also serves on numerous public and private Boards spanning a spectrum of health care to banking, and is the author of over 30 publications. Dr. Windom has also received numerous awards throughout his distinguished career, including Distinguished Internist of the Year from the American Society of Internal Medicine.

Over his distinguished career, Dr. Windom has served as President of the Florida Medical Association, the Florida Heart Association and the Sarasota County Chamber of Commerce. He was also a delegate for 20 years to the American Medical Association. Dr. Windom was honored in Tiblisi, Georgia, USSR, in 1987, and in Kiev, Ukraine, USSR, 1988 by having a tree planted in each community recognizing his efforts to collaborate with bilateral agreements to fight AIDS. He has lectured in India, China and the UK on AIDS and its ramifications. He has visited with Ministers of Health in numerous countries dealing with local and global public health issues. In 1988 he represented the U.S. Public Health Service in the White House Delegation to the High Level Scientific Meeting to discuss Japan s proposed Human Frontier Science Program. He currently speaks to civic groups on the function of various types of stem cells and their potential for preventing and/or curing several diseases. Recently he represented the Office of AIDS Research, NIH, at a meeting in St. Petersburg, Russia, discussing the research being conducted with AIDS vaccines.

Dr. Jay A. Johnson has served as a director since July 11, 2007. Dr. Johnson, who received his Bachelors of Science and Masters of Science degrees in Physiology from the University of California, Berkeley, and his Medical Degree from the George Washington University School of Medicine, is a Board Certified Cardiologist and Internist. Dr. Johnson has been an attending physician at Stanford University Hospital and the Dominican Hospital since 2004 and 2005, respectively. Dr. Johnson has also served as Chief Medical Officer & Editor In Chief of WorldDoc, Inc., since 2002, and as Medical Director of Health Contact Partners since 2006. Prior to these engagements, Dr. Johnson was in private practice or a physician with several hospitals, including the Western Arizona Regional Medical Center and the Sunrise Hospital. Dr. Johnson is the recipient of numerous awards, including from the American College of Cardiology. Dr. Johnson has authored or co-authored over 30 peer reviewed publications or abstracts.

Board Of Directors

Our bylaws set the authorized number of directors on our board of directors at not less than three nor more than nine, subject to increase pursuant to additional appointments by our board. As noted above, there are currently seven directors serving on our board, Drs. Harmison, Windom and Johnson, Ms. Black, and Messrs. Roston, Perkins and Harrison. All of the directors will serve until the next annual meeting of shareholders and until their successors are elected and qualified by our shareholders, both common and preferred, voting on a cumulative basis as one class, or until their earlier death, retirement, resignation or removal.

Board Committees

Our board of directors has established three active committees to date, an audit committee currently comprised of Mr. Harrison, as chairman, and Perkins as a member; a compensation committee currently

comprised of Mr. Perkins, as chairman, and Mr. Roston and Ms. Black as members; and a nomination and qualifications committee currently comprised of Ms. Black as chairman and Messrs. Perkins and Harrison as members.

Independence of Directors

Our board of directors has determined that each of our directors other than Dr. Harmison are independent as that term is defined by the American Stock Exchange (*AMEX*). Under the AMEX definition, an independent director is a person who (1) is not currently (or whose immediate family members are not currently), and has not been over the past three years (or whose immediate family members have not been over the past three years), employed by the company; (2) has not (or whose immediate family members have not) been paid more than $60,000 by the company during the current or past three fiscal years; or (3) has not (or whose immediately family has not) been a partner in or controlling shareholder or executive officer of an organization which the company made, or from which the company received, payments in excess of the greater of $200,000 or 5% of that organizations consolidated gross revenues, in any of the most recent three fiscal years.

Audit Committee Financial Expert

Our board of directors has determined that Mr. Harrison is an audit committee financial expert within the meaning of SEC rules. An audit committee financial expert is a person who can demonstrate the following attributes: (1) an understanding of generally accepted accounting principles and financial statements; (2) the ability to assess the general application of such principles in connection with the accounting for estimates, accruals and reserves; (3) experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the company s financial statements, or experience actively supervising one or more persons engaged in such activities; (4) an understanding of internal controls and procedures for financial reporting; and (5) an understanding of audit committee functions.

Director Compensation Policies

Our current policy with respect to compensating directors for serving on the full board is to compensate them through stock grants. Specifically, upon his or her appointment to our board, each new director is granted an option to purchase 50,000 common shares, exercisable at its then trading price. These options vest quarterly over one year based upon the continued provision of services on the board, and lapse in five years if not exercised. Each director will thereafter automatically be granted options on the anniversary of his or her appointment date entitling such director to purchase an additional 28,000 common shares, which options will vest quarterly based upon the continued provision of services on the board, and lapse in five years if not exercised. The exercise price for these options is fixed at current market price as of the date of grant.

Our current policy with respect to compensating directors for serving on our audit committee is to compensate the members with a combination of cash and common share purchase options. Specifically,

the chairman of the audit committee is entitled to receive a $3,000 quarterly cash retainer, plus $1,500 fee per each meeting attended. Upon his or her appointment, the chairman is also granted an option to purchase 30,000 common shares, exercisable at its then trading price. The chairman will thereafter automatically be granted options on the anniversary of his or her appointment entitling him or her to purchase an additional 30,000 common shares. The other members of the audit committee receive slightly lower compensation, to wit, a $2,000 quarterly cash retainer, a $1,000 cash fee per each meeting attended; and the grant of an option to purchase 25,000 common shares, exercisable at its then trading price. All committee options vest in four quarterly installments, and lapse in five years if not exercised.

Our current policy with respect to compensating directors for serving on our compensation committee is to compensate the members with a combination of cash and common share purchase options. Specifically, each member is entitled to receive a $1,000 fee per each meeting attended. In addition, each member is also granted an option to purchase 5,000 common shares, exercisable at its then trading price, upon his or her appointment to the committee and upon each annual anniversary thereafter. All committee options vest in four quarterly installments subject to attendance at least 90% of the committee meetings during that quarter, and lapse in five years if not exercised.

We have not yet instituted a policy for compensating members on our nominations committee.

Director Overall Compensation Table

The following table shows the overall compensation earned for the 2006 fiscal year with respect to each person who was a director as of December 31, 2006.

Director Outstanding Option Table

The following table provides certain information concerning common share purchase options or warrants held by each of our directors that were outstanding as of December 31, 2006, including options or warrants granted for services other than acting as a director.

Named Executive Officer	Type	Option Grant Date	Number of Common Shares Underlying Unexercised Options		Option Exercise Price	Option Expiration Date
			Exercisable	Unexercisable		
Ellsworth Roston	Consulting	1/1/2002	450,000(1)		$ 1.67	10/31/2007
	Board	2/6/2003	150,000(2)		$ 0.88	2/5/2008
	Board	11/3/2003	28,000(3)		$ 4.40	11/2/2008
	Comp. Comm.	4/1/2004	2,000(3)		$ 6.00	3/31/2009
	Audit Comm.	7/8/2004	1,500(3)		$ 3.95	7/7/2009
	Board	11/1/2004	28,000(4)(2)		$ 2.90	10/31/2009
	Audit Comm.	1/3/2005	5,000(4)		$ 5.05	1/2/2010
	Comp. Comm.	1/3/2005	2,500(3)		$ 5.05	1/2/2010
	Board	11/1/2005	28,000(4)		$ 3.18	10/31/2010

	Comp. Comm.	8/8/2006	1,250(4)	3,075(4)	$	3.18	10/31/2010
	Board	11/1/2006		28,000(4)	$	1.80	10/31/2011
Lowell T. Harmison	Board	6/5/2003	50,000(2)		$	4.20	6/5/2008
	Board	6/6/2004	28,000(4)		$	6.25	6/5/2009
	Board	6/6/2005	28,000(4)		$	4.20	6/5/2010
	Board	6/6/2006	7,000(4)	21,000(4)	$	2.36	6/5/2011
Jennifer Black	Board	1/20/2004	50,000(3)		$	3.50	1/19/2009
	Audit Comm.	4/1/2004	500(3)		$	6.00	3/31/2009
	Audit Comm.	1/3/2005	10,000(2)		$	5.05	1/2/2010
	Board	1/20/2005	28,000(4)		$	3.65	1/19/2010
	Audit Comm.	1/3/2006	7,500(4)	2,500(4)	$	2.70	1/2/2011
	Board	1/20/2006	7,000(4)	21,000(4)	$	2.90	1/19/2011
	Audit Comm.	8/8/2006	6,250(4)	18,750(4)	$	2.76	8/8/2011
	Comp. Comm.	8/8/2006	1,250(4)	3,750(4)	$	2.76	8/8/2011
Norma Provencio (5)	Board	7/29/2005					