SPO Medical Inc
Form 424B3
May 11, 2007

**FILED PURSUANT TO RULE 424(b)(3)**
**REGISTRATION NO. 333-142141**

**PROSPECTUS**

**SPO MEDICAL INC.**

4,586,109 shares of Common Stock

This Prospectus relates to the resale by the selling stockholders of up to 4,586,109 shares of our common stock, par value $0.001 (the "Common Stock") including 948,949 shares of Common Stock and up to 3,637,160 Common Shares issuable upon exercise of our convertible securities.

We will not receive any of the proceeds from the sale of the shares by the selling stockholders.

The selling stockholders may sell the shares from time to time at the prevailing market price or in negotiated transactions. Each of the selling stockholders may be deemed to be an "underwriter," as such term is defined in the Securities Act of 1933, as amended (the "Act").

Our Common Stock is quoted on the Pink Sheets under the trading symbol "SPOM". The last reported sales price per share of our Common Stock as quoted by the Pink Sheets on May 9, 2007 was $1.75.

AS YOU REVIEW THIS PROSPECTUS, YOU SHOULD CAREFULLY CONSIDER THE MATTERS DESCRIBED IN THE SECTION OF THIS PROSPECTUS TITLED "RISK FACTORS" BEGINNING ON PAGE 3.

NEITHER THE SECURITIES EXCHANGE AND COMMISSION (THE "SEC") NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is May 10, 2007

**PRINCIPAL EXECUTIVE OFFICE:**
SPO Medical Inc.
21860 Burbank Blvd., North Building,
Suite 380, Woodland Hills, California 91367
(818) 888-4380

TABLE OF CONTENTS



We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this Prospectus. The selling stockholders are offering to sell, and seeking offers to buy, shares of our Common Stock only in jurisdictions where offers and sales are permitted. The information contained in this Prospectus is accurate only as of the date of this Prospectus, regardless of the time of delivery of this Prospectus or of any sale of Common Stock.

## PROSPECTUS SUMMARY

THIS IS ONLY A SUMMARY AND DOES NOT CONTAIN ALL OF THE INFORMATION THAT MAY BE IMPORTANT TO YOU. YOU SHOULD READ THE ENTIRE PROSPECTUS, ESPECIALLY THE SECTION TITLED "RISK FACTORS" AND OUR FINANCIAL STATEMENTS AND THE RELATED NOTES INCLUDED IN THIS PROSPECTUS, BEFORE DECIDING TO INVEST IN SHARES OF OUR COMMON STOCK.

## SPO MEDICAL INC.

SPO Medical Inc. is engaged in the design, development and marketing of non-invasive pulse oximetry technologies to monitor blood oxygen saturation and heart rate for a variety of markets, including medical, homecare, sports and search & rescue. Pulse oximetry is a non-invasive process used to measure blood oxygen saturation levels and is an established procedure in medical practice. We utilize proprietary and patented technologies to deliver oximetry functionality through innovative commercial products that address such applications as emergency care, home monitoring, sleep apnea, cardiovascular performance, cardiac rehabilitation and the physiological monitoring of military personnel and safety care workers. We have developed and patented proprietary technology that enables the use of pulse oximetry in a reflectance mode of operation (i.e. a sensor that can be affixed to a single side of a body part). This technique is known as Reflectance Pulse Oximetry (RPO). Using RPO, a sensor can be positioned on various body parts, hence minimizing problems of motion and poor profusion. The unique design features contribute to substantially lower electric power requirements and enable a wireless, stand-alone configuration with expanded commercial possibilities.

We were originally organized under the laws of the State of Delaware in September 1981 under the name "Applied DNA Systems, Inc." On November 16, 1994, we changed our name to "Nu-Tech Bio-Med, Inc." On December 23, 1998, we changed our name to "United Diagnostic, Inc." Effective April 21, 2005, we acquired 100% of the outstanding capital stock of SPO Medical Equipment Ltd., an Israeli company (“SPO Ltd.”) pursuant to a Capital Stock Exchange Agreement dated as of February 28, 2005 among our company, SPO Ltd. and the shareholders of SPO Ltd., as amended and restated on April 21, 2005 pursuant to which we issued to the former shareholders of SPO Ltd. a total of 5,769,106 shares of our common stock, par value $0.01 (the "Common Stock") representing approximately 90% of the Common Stock then issued and outstanding (the “Acquisition Transaction”). As a result of the Acquisition Transaction, SPO Ltd. became our wholly owned subsidiary and we changed our name from United Diagnostic Inc. to "SPO Medical Inc." Upon consummation of the Acquisition Transaction, we effected a forward subdivision of our Common Stock issued and outstanding on a 2.65285:1 basis.

Responding to the need for life-saving information in the field where people cannot be absolutely stationary, we have developed patented sensors that work accurately during mild physical activity. This technique uses a reflectance method (known as RPO) whereby a very small sensor placed on the body at various locations has the ability to measure oxygen saturation and heart pulse rate. We have incorporated our patented reflectance technology into portable devices for medical and consumer applications. We hold three patents issued by the United States Patent and Trademark Office covering various aspects of our unique RPO based technology.

We currently have three commercial products utilizing our unique oximtery technology. These are the (i) PulseOx 5500TM -- a stand-alone commercial RPO spot check monitor for SpO2 and heart rate, (ii) Check MateTM--- addresses the sports and aviation market’s demand for a lightweight, inexpensive monitor for measuring SpO2 and heart rate during physically active and high-altitude activities and the PulseOx 7500TM --a monitor for extended monitoring of SpO2 and heart rate by means of RPO (the monitor is being initially marketed for pre screening of sleep apnea sufferers). The PulseOx 5500 was first commercially available in the fourth quarter of 2004. We currently have in various stages of development other devices utilizing its oximetry technology. Our mission is to build a profitable business that develops and commercializes medical biosensor products that improve people's lives and increases stockholder value. We intend to leverage our core technologies to develop new, innovative product applications.

We recognized revenues of $3,714,000 and $1,825,000 for the years ended December 31, 2006 and 2005, respectively. We incurred net losses of $4,963,000 and $2,038,000 for the years ended December 31, 2006 and 2005. We have a limited operating history upon which an evaluation of our prospects can be made. Our prospects must therefore be evaluated in light of the challenges, expenses, delays and complications ordinarily associated with a development stage company. Our independent accountants have included a "going concern" exception in their audit reports on our audited 2006 and 2005 financial statements. The financial statements do not include any adjustment that might result from the outcome of such uncertainty.

**SHARES BEING REGISTERED**

We are filing this registration statement, including the prospectus attached to it, in satisfaction of undertakings that we undertook in connection with the certain private placements of our debt securities and warrants that we completed in 2005 and 2006, pursuant to which we raised in the aggregate $2,094,000 in gross proceeds. See " *Agreements with the Selling Stockholders* ". In connection with these private placements, we are registering the resale of 3,316,327 shares of our common stock, par value $0.001 (the "Common Stock") issuable upon exercise of warrants issued to the investors in these private placements and upon conversion of interest due on the notes that we issued in the 2005 private placement.

In addition, we are also including in this Registration statement an additional 270,833 shares of Common Stock issuable upon the exercise of certain warrants previously granted to other stockholders and 948,949 shares of Common Stock previously issued to investors upon conversion of certain promissory notes that we issued in January 2005 in the aggregate principal amount of $300,000. Finally, we are including in this Registration Statement 50,000 shares of Common Stock that may be issuable upon exercise of three year warrants that we issued in March 2007 to an institutional investor in consideration of the extension to us of a $200,000 line of credit under which we can draw as needed until January 28, 2008. The terms and provisions applicable to these issuances are discussed in further detail in this Prospectus under the caption. See " *Description of the Agreements with the Selling Stockholders.* "

**CORPORATE INFORMATION**

Our principal offices are located at 21860 Burbank Blvd., North Building, Suite 380, Woodland Hills, California, 91367 and our telephone number is (818) 888-4380. We maintain a website at www.spomedical.com. Information contained on our website is not part of this Prospectus.

All references to "we," "our," or "us" in this filing refer to SPO Medical Inc., a Delaware corporation, and our subsidiaries.

**RISK FACTORS**

Investing in shares of our Common Stock involves significant risk. You should consider the information under the caption "RISK FACTORS" beginning on page 3 of this Prospectus in deciding whether to purchase the Common Stock offered under this Prospectus.

**THE OFFERING**

| | |
|---|---|
| Securities offered by the selling stockholders | 4,586,109 shares of Common Stock, comprised of 948,949 shares of Common Stock and 3,637,160 shares of Common Stock underlying previously issued convertible securities. (1) |
| Shares outstanding before the Offering | 19,355,525 shares of Common Stock (2) |
| Use of Proceeds | We will not receive any proceeds from the sale of the Common Stock by the selling stockholders. |

(1) Represents (i) 2,879,361 shares of Common Stock issuable upon exercise of warrants issued in connection with the 2005 and 2006 private placements (collectively, the “Private Placement Warrants”), (ii) 436,966 shares of Common Stock issuable upon conversion of interest due on our promissory notes that we issued in the 2005 private placement (the “2005 Notes Interest Shares”) (ii) 320,833 shares of Common Stock issuable upon exercise of warrants issued to certain other stockholders of our company and (iv) 948,949 shares of Common Stock previously issued. For a description of the agreement between us and the selling stockholders, see "DESCRIPTION OF THE AGREEMENTS WITH SELLING STOCKHOLDERS".

(2) As of May 9, 2007. Does not include (a) up to an aggregate of 1,260,000 shares of Common Stock issuable upon exercise of options granted under our 2005 Equity Incentive Stock Option Plan and our 2002 Non-Employee Director Stock Option Plan, (b) any of the shares described in footnote (1) above.

## RISK FACTORS

INVESTING IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD CAREFULLY CONSIDER THE RISKS AND UNCERTAINTIES DESCRIBED BELOW BEFORE YOU PURCHASE ANY OF OUR COMMON STOCK. IF ANY OF THESE RISKS OR UNCERTAINTIES ACTUALLY OCCURS, OUR BUSINESS, FINANCIAL CONDITION OR RESULTS OF OPERATIONS COULD BE MATERIALLY ADVERSELY AFFECTED. IN THIS EVENT YOU COULD LOSE ALL OR PART OF YOUR INVESTMENT.

**WE HAVE A HISTORY OF LOSSES AND EXPECT TO INCUR LOSSES AND NEGATIVE OPERATING CASH FLOWS IN THE FUTURE.**

Our accumulated deficit was approximately $11,049,000 as at December 31, 2006. We expect our operating losses to continue as we continue to expend resources to further develop and enhance our existing product lines, to complete development of new generation products, obtain regulatory clearances or approvals, expand our marketing, sales, manufacturing and finance capabilities and conduct further research and development.

We also expect to experience negative cash flow in the future as we fund our operating losses and capital expenditures. We currently have three products that are commercially available. In order to achieve and maintain profitability we must expand our existing product lines.

**WE MAY NEED TO RAISE ADDITIONAL FUNDS TO IMPLEMENT OUR BUSINESS PLAN AND THERE IS NO ASSURANCE THAT SUCH FUNDS CAN BE RAISED ON TERMS THAT WE WOULD FIND ACCEPTABLE, OR AT ALL.**

Although management believes funds on hand as well as revenues that we expect to generate in the ordinary course of our business may enable us to meet our operating liquidity needs as they arise, circumstances may arise that would require us to raise additional capital in order to meet our liquidity needs and satisfy our current business plan. We do not know whether additional financing will be available when needed, or on terms favorable to our stockholders or us. We may raise any necessary funds through public or private equity offerings, debt financings or additional corporate collaboration and licensing arrangements. Any failure to achieve adequate funding in a timely fashion would delay our development programs and could lead to abandonment of one or more of our development initiatives. To the extent we cannot obtain additional funding, our ability to continue to develop and introduce products to market will be limited. Any additional equity financing may be dilutive to stockholders, and debt and certain types of equity financing, if available, may involve restrictive covenants or other provisions that would limit how we conduct our business or finance our operations.

**WE ARE CURRENTLY DEPENDENT ON LIMITED NUMBER OF PRODUCTS AND IN ORDER TO SUCCEED WE WILL NEED TO DEVELOP AND COMMERCIALIZE OTHER PRODUCTS CURRENTLY UNDER DEVELOPMENT.**

Unlike many of our competitors which have commercialized a number of products, we are currently dependent on our three pulse oximetry products for the generation of revenues. The PulseOx 5500 was first commercially available in the fourth quarter of 2004. While our core technology has a number of potentially beneficial uses, if that core technology is not widely accepted in the marketplace, we currently do not have other commercialized products to fall back on.

We began commercial distribution of the PulseOx 7500TM first quarter 2007. Commercial distribution of the PedOMetrixTM, a monitor being designed specifically for the use with infants and also currently under development, is expected to commence during late fourth quarter of 2007. However, potential products that appear to be promising

at any development stage may not reach the market for a number of reasons. These reasons include the possibility that the potential products may:

- be found ineffective or cause harmful side effects;
- fail to receive necessary regulatory approvals;
- be precluded from commercialization by proprietary rights of third parties;
- be difficult to manufacture on a large scale; or
- be uneconomical or fail to achieve market acceptance.

If any of these potential problems occur, we may not successfully market these products.

**WE DO NOT HAVE A LONG OPERATING HISTORY, WHICH MAKES IT DIFFICULT FOR YOU TO EVALUATE OUR BUSINESS.**

SPO Ltd. commenced operations in 1998. We introduced our first product into the marketplace in the fourth quarter of 2004. Accordingly, there is limited historical information regarding our revenue trends and operations upon which investors can evaluate our business. Our prospects must be considered in light of the substantial risks, expenses, uncertainties and difficulties encountered by entrants into the medical device industry, which is characterized by increasing intense competition and the relative failure rates.

**THE SALE OF OUR PRODUCTS IN THE UNITED STATES IS SUBJECT TO GOVERNMENT REGULATIONS AND WE MAY NOT BE ABLE TO OBTAIN CERTAIN NECESSARY CLEARANCES OR APPROVALS.**

The design, manufacturing, labeling, distribution and marketing of medical device products in the United States is subject to extensive and rigorous regulation by the Food and Drug Administration (FDA). In order for us to market our products in the United States, we must obtain clearance or approval from the FDA. which can be expensive and uncertain and can cause lengthy delays before we can begin selling our products. We cannot be sure:

- that we, or any collaborative partner, will make timely filings with the FDA;
- that the FDA will act favorably or quickly on these submissions;
- that we will not be required to submit additional information or perform additional clinical studies;
- that we would not be required to submit an application for pre-market approval, rather than a 510(k) pre-market notification submission as described below; or
- that other significant difficulties and costs will not be encountered to obtain FDA clearance or approval.

The FDA may impose strict labeling or other requirements as a condition of its clearance or approval, any of which could limit our ability to market our products. Further, if we wish to modify a product after FDA clearance of a pre-market notification or approval of a pre-market approval application, including changes in indications or other modifications that could affect safety and efficacy, additional clearances or approvals will be required from the FDA. Any request by the FDA for additional data, or any requirement by the FDA that we conduct additional clinical studies or submit to the more rigorous and lengthier pre-market approval process, could result in a significant delay in bringing our products to market and substantial additional research and other expenditures. Similarly, any labeling or other conditions or restrictions imposed by the FDA on the marketing of our products could hinder our ability to effectively market our products. Any of the above actions by the FDA could delay or prevent altogether our ability to market and distribute our products. Further, there may be new FDA policies or changes in FDA policies that could be adverse to us.

**OUTSIDE THE UNITED STATES, WE ARE SUBJECT TO GOVERNMENT REGULATION, WHICH COULD DELAY OR PREVENT OUR ABILITY TO SELL OUR PRODUCTS IN CERTAIN JURISDICTIONS.**

In order for us to market our products in Europe and some other international jurisdictions, we and our distributors and agents must obtain required regulatory registrations or approvals. We must also comply with extensive regulations regarding safety, efficacy and quality in those jurisdictions. We may not be able to obtain the required regulatory registrations or approvals, or we may be required to incur significant costs in obtaining or maintaining any regulatory registrations or approvals we receive. Delays in obtaining any registrations or approvals required to market our products, failure to receive these registrations or approvals, or future loss of previously obtained registrations or approvals would limit our ability to sell our products internationally. For example, international regulatory bodies have adopted various regulations governing product standards, packaging requirements, labeling requirements, import restrictions, tariff regulations, duties and tax requirements. These regulations vary from country to country.

**EVEN IF WE OBTAIN CLEARANCE OR APPROVAL TO SELL OUR PRODUCTS, WE ARE SUBJECT TO ONGOING REQUIREMENTS AND INSPECTIONS THAT COULD LEAD TO THE RESTRICTION, SUSPENSION OR REVOCATION OF OUR CLEARANCE.**

We are required to adhere to applicable FDA regulations and ISO standards regarding good manufacturing practice, which include testing, control, and documentation requirements. We are subject to similar regulations in foreign countries. Ongoing compliance with good manufacturing practice and other applicable regulatory requirements will be strictly enforced in the United States through periodic inspections by state and federal agencies, including the FDA, and in international jurisdictions by comparable Notified Body for CE Marking and ISO Standards. Failure to comply with these regulatory requirements could result in, among other things, warning letters, fines, injunctions, civil penalties, recall or seizure of products, total or partial suspension of production, failure to obtain premarket clearance or premarket approval for devices, withdrawal of approvals previously obtained, and criminal prosecution. The restriction, suspension or revocation of regulatory approvals or any other failure to comply with regulatory requirements would limit our ability to operate and could increase our costs.

**OUR SUCCESS LARGELY DEPENDS ON OUR ABILITY TO OBTAIN AND PROTECT THE PROPRIETARY INFORMATION ON WHICH WE BASE OUR PRODUCTS.**

Our success depends in large part upon our ability to establish and maintain the proprietary nature of our technology through the patent process, as well as our ability to license from others patents and patent applications necessary to develop our products. If any of our patents are successfully challenged, invalidated or circumvented, or our right or ability to manufacture our products was to be limited, our ability to continue to manufacture and market our products could be adversely affected.

The defense of patent infringement suits is costly and time-consuming and their outcome is uncertain. An adverse determination in litigation could subject us to significant liabilities, require us to obtain licenses from third parties, or restrict or prevent us from selling our products in certain markets. Although patent and intellectual property disputes are often settled through licensing or similar arrangements, costs associated with such arrangements may be substantial and could include ongoing royalties. Furthermore, the necessary licenses may not be available to us on satisfactory terms, if at all. Thus, as discussed above, if third party patents cover any aspect of our products or processes, then we may lack freedom to operate in accordance with our business plan.

We have been issued three United States patents. One or more of the patents for our existing or future products, may be successfully challenged, invalidated or circumvented, or we may otherwise be unable to rely on these patents. These risks are also present for the process we use or will use for manufacturing our products. In addition, our competitors, many of whom have substantial resources and have made substantial investments in competing technologies, may apply for and obtain patents that prevent, limit or interfere with our ability to make, use and sell our products, either in the United States or in international markets.

The medical device industry has been characterized by extensive litigation regarding patents and other intellectual property rights. In addition, the United States Patent and Trademark Office may institute interference proceedings. The defense and prosecution of intellectual property suits, Patent and Trademark Office proceedings and related legal and administrative proceedings are both costly and time consuming. Moreover, we may need to litigate to enforce our patents, to protect our trade secrets or know-how, or to determine the enforceability, scope and validity of the proprietary rights of others. Any litigation or interference proceedings involving us may require us to incur substantial legal and other fees and expenses and may require some of our employees to devote all or a substantial portion of their time to the proceedings. An adverse determination in the proceedings could subject us to significant liabilities to third parties, require us to seek licenses from third parties or prevent us from selling our products in some or all markets. We may not be able to reach a satisfactory settlement of any dispute by licensing necessary patents or other intellectual property. Even if we reached a settlement, the settlement process may be expensive and time consuming, and the terms of the settlement may require us to pay substantial royalties. An adverse determination in a judicial or administrative proceeding or the failure to obtain a necessary license could prevent us from manufacturing and selling our products.

In addition to patents, we rely on trade secrets and proprietary know-how, which we seek to protect, in part, through confidentiality and proprietary information agreements. The other parties to these agreements may breach these provisions, and we may not have adequate remedies for any breach. Additionally, our trade secrets could otherwise become known to or be independently developed by competitors.

Finally, our PulseOx 7500TM utilizes third party owned proprietary licensed software. If for, whatever reason, we are unable to maintain the license or renew it on commercially acceptable terms (or at all) or if such party’s right to such proprietary rights are challenged and we are unable to maintain these licenses or obtain or develop replacement technologies, our business may be adversely affected.

**WE ARE DEVELOPING OUR CURRENT PRODUCT LINES INDEPENDENTLY FROM ANY COLLABORATIVE PARTNERS, WHICH WILL REQUIRE US TO ACCESS ADDITIONAL CAPITAL AND TO DEVELOP ADDITIONAL SKILLS TO PRODUCE, MARKET AND DISTRIBUTE THESE PRODUCTS.**

We are independently finishing development, building up production capacity, launching, marketing and distributing our oximetry line of products. These activities require additional resources and skills that we will need to secure. There is no assurance that we will be able to raise sufficient capital or attract and retain skilled personnel to enable us to finish development, launch and market these products. Thus, there can be no assurance that we will be able to commercialize all, or any, of these products.

**OUR PRODUCTS USE NOVEL TECHNOLOGIES OR APPLY TECHNOLOGIES IN MORE INNOVATIVE WAYS THAN OTHER COMPETING MEDICAL DEVICES AND ARE OR WILL BE NEW TO THE MARKET;ACCORDINGLY, WE MAY NOT BE SUCCESSFUL IN ACHIEVING WIDE ACCEPTANCE OF OUR PRODUCTS AND OUR OPERATIONS AND GROWTH WOULD BE ADVERSELY AFFECTED.**

Our products are based on new methods of reflective pulse oximetry. If our products do not achieve significant market acceptance, our sales will be limited and our financial condition may suffer. Physicians and individuals may not recommend or use our products unless they determine that these products are an attractive alternative to current tests that have a long history of safe and effective use. To date, few independent studies regarding our products have been published. The lack of independent studies limits the ability of doctors or consumers to compare our products to conventional products.

**IF WE ARE UNABLE TO COMPETE EFFECTIVELY IN THE HIGHLY COMPETITIVE MEDICAL DEVICE INDUSTRY, OUR FUTURE GROWTH AND OPERATING RESULTS WILL SUFFER.**

The medical device industry in general, and the markets in which we expect to offer products in particular, are intensely competitive. Many of our competitors have substantially greater financial, research, technical, manufacturing, marketing and distribution resources than we possess and have greater name recognition and lengthier operating histories in the health care industry. We may not be able to effectively compete against these and other competitors. A number of competitors offer oximetry products. These products and monitors are widely accepted in the health care industry and have a long history of accurate and effective use. Further, if our products are not available at competitive prices, health care administrators who are subject to increasing pressures to reduce costs may not elect to purchase them.

Furthermore, our competitors may succeed in developing, either before or after the development and commercialization of our further products, devices and technologies that permit more efficient, less expensive non-invasive and less invasive pulse oximetry monitoring.

**WE HAVE LIMITED MANUFACTURING EXPERIENCE, WHICH COULD LIMIT OUR GROWTH.**

We do not have sufficient internal manufacturing experience that would enable us to make products in the volumes that would be necessary for us to achieve significant commercial sales, and we rely upon our suppliers. In addition, we may not be able to establish and maintain reliable, efficient, full scale manufacturing at commercially reasonable costs, in a timely fashion. Difficulties we encounter in manufacturing scale-up, or our failure to implement and maintain our manufacturing facilities in accordance with good manufacturing practice regulations, international quality standards or other regulatory requirements, could result in a delay or termination of production. We may decide to manufacture these products ourselves in the future or may decide to manufacture products that are currently under development in this market segment. Companies often encounter difficulties in scaling up production, including problems involving production yield, quality control and assurance, and shortages of qualified personnel.

Since we are relying on third party manufacturing for our initial product offerings in the pulse oximetry product line, we are dependent upon those parties for product supply. Any delay in initiating production or scaling production to higher volumes could result in delays of product introduction, or create lower availability of product than our expectations. These delays could lead to lower revenue achievement and additional cash requirements for us.

**CONCENTRATIONS OF AVAILABLE SOURCES OF SUPPLY OF PRODUCTS**

Certain components used in the Company's products are currently available to the Company from only one source and other components are currently available from only a limited number of sources. The Company does not have long-term supply contracts with its suppliers. In addition, the Company employs several unaffiliated subcontractors outside of Israel for the manufacture of its chipsets. While the Company has been able to obtain adequate supplies of components and has experienced no material problems with subcontractors to date, in the event that any of these suppliers or subcontractors is unable to meet the Company's requirements in a timely manner, the Company may experience an interruption in production. Any such disruption, or any other interruption of such suppliers' or subcontractors' ability to provide components to the Company and manufacture its chipsets, could result in delays in making product shipments, which could have a material adverse impact on the Company's business, financial condition and results of operations.

**OUR LIMITED MARKETING AND SALES EXPERIENCE MAKES OUR REVENUE UNCERTAIN.**

We are responsible for marketing our oximetry product line. We have relatively limited experience in marketing or selling medical device products and only have a two person internal marketing and sales team. In order to successfully continue to market and sell our products, we must either develop a marketing and sales force or expand our arrangements with third parties to market and sell our products. We may not be able to successfully develop an effective marketing and sales force, and we may not be able to enter into and maintain marketing and sales agreements with third parties on acceptable terms, if at all. If we develop our own marketing and sales capabilities, we will compete with other companies that have experienced and well-funded marketing and sales operations. If we enter into a marketing arrangement with a third party, any revenues we would receive will be dependent on this third party, and we will likely be required to pay a sales commission or similar compensation to this party. The efforts of these third parties for the marketing and sale of our products may not be successful.

**BECAUSE WE OPERATE IN AN INDUSTRY WITH SIGNIFICANT PRODUCT LIABILITY RISK, AND WE HAVE NOT SPECIFICALLY INSURED AGAINST THIS RISK, WE MAY BE SUBJECT TO SUBSTANTIAL CLAIMS AGAINST OUR PRODUCTS.**

The development, manufacture and sale of medical products entail significant risks of product liability claims. We currently have limited product liability insurance coverage beyond that provided by our general liability insurance. Accordingly, we may not be adequately protected from any liabilities, including any adverse judgments or settlements, we might incur in connection with the development, clinical testing, manufacture and sale of our products. A successful product liability claim or series of claims brought against us that result in an adverse judgment against or settlement by us in excess of any insurance coverage could seriously harm our financial condition or reputation. In addition, product liability insurance is expensive and may not be available to us on acceptable terms, if at all.

**THE AVAILABILITY OF THIRD-PARTY REIMBURSEMENT FOR OUR PRODUCTS IS UNCERTAIN, WHICH MAY LIMIT CONSUMER USE AND THE MARKET FOR OUR PRODUCTS.**

In the United States and elsewhere, sales of medical products are dependent, in part, on the ability of consumers of these products to obtain reimbursement for all or a portion of their cost from third-party payors, such as government and private insurance plans. Any inability of patients, hospitals, physicians and other users of our products to obtain

sufficient reimbursement from third-party payors for our products, or adverse changes in relevant governmental policies or the policies of private third-party payors regarding reimbursement for these products, could limit our ability to sell our products on a competitive basis. We are unable to predict what changes will be made in the reimbursement methods used by third-party health care payors. Moreover, third-party payors are increasingly challenging the prices charged for medical products and services, and some health care providers are gradually adopting a managed care system in which the providers contract to provide comprehensive health care services for a fixed cost per person. Patients, hospitals and physicians may not be able to justify the use of our products by the attendant cost savings and clinical benefits that we believe will be derived from the use of our products, and therefore may not be able to obtain third-party reimbursement.

Reimbursement and health care payment systems in international markets vary significantly by country and include both government sponsored health care and private insurance. We may not be able to obtain approvals for reimbursement from these international third-party payors in a timely manner, if at all. Any failure to receive international reimbursement approvals could have an adverse effect on market acceptance of our products in the international markets in which approvals are sought.

**OUR SUCCESS DEPENDS ON OUR ABILITY TO ATTRACT AND RETAIN SCIENTIFIC, TECHNICAL, MANAGERIAL AND FINANCE PERSONNEL.**

Our ability to operate successfully and manage our future growth depends in significant part upon the continued service of key scientific, technical, managerial and finance personnel, as well as our ability to attract and retain additional highly qualified personnel in these fields. We may not be able to attract and retain key employees when necessary, which would limit our operations and growth. In addition, if we are able to successfully develop and commercialize our products, we will need to hire additional scientific, technical, marketing, managerial and finance personnel. We face intense competition for qualified personnel in these areas, many of whom are often subject to competing employment offers.

**WE ARE SIGNIFICANTLY INFLUENCED BY OUR DIRECTORS, EXECUTIVE OFFICERS AND THEIR AFFILIATED ENTITIES.**

Our directors, executive officers and entities affiliated with them beneficially owned an aggregate of approximately 29% of our outstanding Common Stock as of December 31, 2006. These stockholders, acting together, would be able to exert significant influence on substantially all matters requiring approval by our stockholders, including the election of directors and the approval of mergers and other business combination transactions.

**THERE IS NO ACTIVE MARKET FOR OUR COMMON STOCK AND NONE MAY DEVELOP OR BE SUSTAINED**

Our Common Stock is quoted on the Pink Sheets under the symbol "SPOM". The Pink Sheets is a centralized quotation service that collects and publishes market maker quotes in real time, primarily through its web site, http://www.pinksheets.com. Because our stock trades on the Pink Sheets, rather than on a national securities exchange or event the NASDAQ over-the counter Bulletin Board (OTC) market, you may find it difficult to either dispose of, or to obtain quotations as to the price of, our Common Stock.

There has only been very limited trading activity in our Common Stock. There can be no assurance that a more active trading market will commence in our securities either before or following any new business transaction. Further, in the event that an active trading market commences, there can be no assurance as to the level of any market price of our shares of common stock, whether any trading market will provide liquidity to investors, or whether any trading market will be sustained.

We can provide no assurance when, if ever, our board of directors, will take action to have our Common Stock quoted on the NASDAQ over-the-counter Bulletin Board (OTC) or, even, if the Board were to take such action, no assurance can be given that our Common Stock will in fact be quoted on the OTC Bulletin Board market. Failure to develop or maintain an active trading market could negatively affect the price of our securities.

**ADDITIONAL BURDENS IMPOSED UPON BROKER-DEALERS BY THE APPLICATION OF THE "PENNY STOCK" RULES TO OUR COMMON STOCK MAY LIMIT THE MARKET FOR OUR COMMON STOCK.**

Broker-dealer practices in connection with transactions in "penny stocks" are regulated by certain penny stock rules adopted by the Securities and Exchange Commission. Penny stocks generally are equity securities with a price of less than $5.00 (other than securities registered on certain national securities exchanges or quoted on the Nasdaq system, provided that current prices and volume information with respect to transactions in such securities are provided by the exchange or system). If our Common Stock continues to be offered at a market price less than $5.00 per share, and does not qualify for any exemption from the penny stock regulations, our Common Stock will continue to be subject to these additional regulations relating to low-priced stocks.

The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document that provides information about penny stocks and the risks in the penny stock market. The broker-dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and its salesperson in the transaction, and monthly account statements showing the market value of each penny stock held in the customer's account. In addition, the penny stock rules generally require that prior to a transaction in a penny stock the broker-dealer make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction. These requirements have historically resulted in reducing the level of trading activity in securities that become subject to the penny stock rules.

The additional burdens imposed upon broker-dealers by these penny stock requirements may discourage broker-dealers from effecting transactions in the Common Stock, which could severely limit the market liquidity of our Common Stock and our shareholders' ability to sell our Common Stock in the secondary market.

**OUR BOARD OF DIRECTORS' RIGHT TO AUTHORIZE THE ISSUANCE OF ADDITIONAL SHARES OF PREFERRED STOCK COULD ADVERSELY IMPACT THE RIGHTS OF HOLDERS OF OUR COMMON STOCK.**

Our board of directors currently has the right to designate and authorize the issuance of our preferred stock, in one or more series, with such voting, dividend and other rights as our directors may determine. The board of directors can designate new series of preferred stock without the approval of the holders of our Common Stock. The rights of holders of our Common Stock may be adversely affected by the rights of any holders of shares of preferred stock that may be issued in the future, including without limitation dilution of the equity ownership percentage of our holders of Common Stock and their voting power if we issue preferred stock with voting rights. Additionally, the issuance of preferred stock could make it more difficult for a third party to acquire a majority of our outstanding voting stock.

## RISKS RELATED TO OPERATIONS IN ISRAEL

**WE DEPEND ON A SINGLE FACILITY IN ISRAEL AND ARE SUSCEPTIBLE TO ANY EVENT THAT WOULD ADVERSELYAFFECT ITS CONDITION.**

Most of our laboratory capacity and principal research and development and manufacturing facilities are located in the State of Israel. Fire, natural disaster or any other cause of material disruption in our operation in this location could have a material adverse effect on our business, financial condition and operating results. As discussed above, to remain competitive in the network communications industry, we must respond quickly to technological developments. Damage to our facility in Israel could cause serious delays in the development of new products and services and, therefore, could adversely affect our business. In addition, the particular risks relating to our location in Israel are described below.

**THE TRANSFER AND USE OF SOME OF OUR TECHNOLOGY AND ITS PRODUCTION IS LIMITED BECAUSE OF THE RESEARCH AND DEVELOPMENT GRANTS WE RECEIVED FROM THE ISRAELI GOVERNMENT TO DEVELOP SUCH TECHNOLOGY. SUCH LIMITATIONS MAY RESTRICT OUR BUSINESS GROWTH AND PROFITABILITY.**

Our research and development efforts associated with the development of oximetry products have been partially financed through grants from the Office of the Chief Scientist of the State of Israel (the "Chief Scientist"). We are subject to certain restrictions under the terms of the Chief Scientist grants. Specifically, the products developed with the funding provided by these grants may not be manufactured, nor may the technology which is embodied in our products be transferred outside of Israel without appropriate governmental approvals and/or fines. These restrictions do not apply to the sale or export from Israel of our products developed with this technology. These restrictions could limit or prevent our growth and profitability.

**POLITICAL AND ECONOMIC CONDITIONS IN ISRAEL MAY LIMIT OUR ABILITY TO PRODUCE AND SELL OUR PRODUCTS. THIS COULD RESULT IN A MATERIAL ADVERSE EFFECT ON OUR OPERATIONS AND BUSINESS.**

Our research and development and manufacturing facilities are located Israel,. Political, economic and security conditions in Israel directly influence us. Since the establishment of the State of Israel in 1948, Israel and its Arab neighbors have engaged in a number of armed conflicts. A state of hostility, varying in degree and intensity, has led to security and economic problems for Israel. Major hostilities between Israel and its neighbors may hinder Israel's international trade and lead to economic downturn. This, in turn, could have a material adverse effect on our operations and business.

Since October 2000, there has been substantial deterioration in the relationship between Israel and the Palestinian Authority that has resulted in increased violence. The future effect of this deterioration and violence on the Israeli economy and our operations is unclear. Ongoing violence between Israel and the Palestinians as well as tension between Israel and the neighboring Syria and Lebanon may have a material adverse effect on our business, financial conditions or results of operations.

Generally, male adult citizens and permanent residents of Israel under the age of 51 are obligated to perform up to 36 days of military reserve duty annually. Additionally, these residents may be called to active duty at any time under emergency circumstances. The full impact on our workforce or business if some of our officers and employees are called upon to perform military reserve service is difficult to predict.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Prospectus contains some "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 and information relating to us that are based on the beliefs of our management, as well as assumptions made by and the information currently available to our management. When used in this Prospectus, the words "estimate," "project," "believe," "anticipate," "intend," "expect" and similar expressions are intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated in these forward-looking statements, including those risks discussed in this Prospectus.

You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this Prospectus. Except for special circumstances in which a duty to update arises when prior disclosure becomes materially misleading in light of subsequent circumstances, we do not intend to update any of these forward-looking statements to reflect events or circumstances after the date of this Prospectus or to reflect the occurrence of unanticipated events.

## USE OF PROCEEDS

The selling stockholders will receive the net proceeds from sales of the shares of Common Stock included in this Prospectus. We will not receive any proceeds from the sale of Common Stock by the selling stockholders. We would, however, receive proceeds from the exercise of warrants to purchase up to 3,637,160 shares of Common Stock.

The selling stockholders are not obligated to exercise these warrants, and there can be no assurance that they will do so. If all of these warrants were exercised for cash, we would receive gross proceeds of approximately $2.5 million. This figure assumes that the warrants for 357,500 shares of Common Stock that we issued in connection with the offering of our debt securities in July 2006 would be exercised at a per share exercise price of $1.30. No assurance can be given that the per share exercise price of the warrants would not be less than $1.30 in accordance with the terms of such warrant. Additionally, we anticipate utilizing the proceeds of the warrants for 2,958,827 shares that we issued in connection with our private placement of our debt securities in April 2005 to repay the principal and accrued interest on these notes and, accordingly, the net amount from the assumed exercise of the warrants that would be available for working capital purposes may be significantly less than the gross proceeds of $2.5 million. See " *Description of the Agreements with the Selling Stockholders* " below for additional details relating to the above-referenced private placements. Any net proceeds we receive from the exercise of these warrants will be used for working capital and general corporate purposes.

## AGREEMENTS WITH THE SELLING STOCKHOLDERS

THE FOLLOWING IS A SUMMARY OF CERTAIN PROVISIONS OF THE AGREEMENTS BETWEEN US AND CERTAIN OF THE SELLING STOCKHOLDERS RELATING TO THE PURCHASE BY THESE SELLING STOCKHOLDERS OF OUR SECURITIES. WE ARE REGISTERING THE RESALE OF THE SHARES OFFERED BY THIS PROSPECTUS IN ORDER TO SATISFY OUR OBLIGATIONS TO THE HOLDERS OF THESE CONVERTIBLE DEBENTURES AND WARRANTS.

### The 2005 Private Placement

Pursuant to Subscription Agreements entered into between April and December 2005 (the "Subscription Agreement") between us and certain accredited institutional and individual investors, we issued units of our securities, with each unit comprised of (i) our 18 month 6% promissory note (collectively, the "April 2005 Notes") and (ii) three year warrants to purchase up to such number of shares of our Common Stock as are determined by dividing the principal amount of the Note purchased by such investor by $ 0.85 (collectively the "April 2005 Warrants"). In December 2005, we completed the private placement and raised the maximum gross proceeds of $1,544,000.

In September 2006, we offered to the holders of the April 2005 Notes to revise certain of the terms of the original offering in order to facilitate an extension to the scheduled maturity date of such notes, (hereinafter the "Amendment"). Pursuant to the Amendment, the (a) maturity date of the April 2005 Notes was extended through March 31, 2008; (b) the exercise period of the April 2005 Warrants was extended through September 30, 2010 and the per share exercise price was adjusted to $0.60 and (c) the interest rate on the amounts outstanding under the April 2005 Notes was increased to 8% per annum, effective July 12, 2006. The Amendment also provides that if we subsequently issue shares of our Common Stock at an effective per share exercise price less than that of the adjusted per share exercise price of the April 2005 Warrants during the adjusted exercise period, then the exercise price of the April 2005 Warrants is to be reduced to such lower exercise price; provided, that, this protection will not apply to certain of our equity or debt issuances (i) from approved stock option plans to employees, directors and other service providers, (ii) upon exercise of options and warrants outstanding as of September 27, 2006 and (iii) to our consultants that an unaffiliated third party would deem to be commercially reasonable and fair. The Amendment became effective as of September 27, 2006.

Under the Amendment, at all times the subscriber has the right to convert all, or any portion of the accrued interest due on the April 2005 Note to Common Stock at the April 2005 Warrant exercise price.

In addition, the Amendment also provided that, subject to certain qualifications, our obligation to file a registration statement under the Securities Act of 1933, as amended, relating to the resale of our Common Stock underlying the April 2005 Warrants is extended to April 15, 2007. We are filing this registration statement in fulfillment of our

obligation thereunder.

Under the terms of the April 2005 Notes, a holder may declare such note immediately due and payable upon the occurrence of any of the following events of default (each an “Event of Default”): (i) our failure to pay the principal, interest or any other sum when due, (ii) any material representation or warranty that we make in the Note or certificate furnished in connection therewith shall be false or misleading in any material respect, (iii) our breach of any material covenant or other term or condition of the Agreement or the Note in any material respect, if such breach continues for 5 business days after notice thereof from the holder, (iv) the assignment by us for the benefit of creditors or application for or consent to the appointment of a receiver or trustee, or such receiver or trustee shall otherwise be appointed, (v) ) our insolvency or liquidation or a bankruptcy event or (vi) the entry of a monetary judgment or similar process in excess of $200,000 if such judgment remains unvacated for 30 days.

Three holders of the April 2005 Notes in the aggregate principal amount of $105,000 did not sign the Amendment and one such holder was repaid $50,000 plus accrued interest upon maturity of their April 2005 Note. Accordingly, the per share exercise price of the April 2005 Warrants held by these persons was not modified to $0.60 and remained at $0.85, and the exercise period of such warrant was not extended by two years.

In total, we are registering the resale of 2,958,827 shares of our Common Stock issuable upon exercise of the April 2005 Warrants and upon conversion of the interest due on the April 2005 Notes pursuant to the registration statement of which this prospectus forms a part.

The description above is qualified in its entirety by reference to the forms of Subscription Agreement, the April 2005 Note and the April 2005 Warrant attached to the Current Report on Form 8-K that we filed on April 27, 2005 and the form of Amendment attached as an Exhibit to our quarterly report on Form 10-QSB for the three months ended September 30, 2006. We urge you to read these documents carefully for more details regarding the provisions we describe below and for other provisions that may be important to you.

**The 2006 Private Placement**

Pursuant to Subscription Agreements entered into between July and October 2006 (the "2006 Subscription Agreement") between us and certain accredited institutional and individual investors, we issued units of our securities, with each unit comprised of (i) an 8% promissory note (collectively, the “July 2006 Notes”) that becomes due 12 months following issuance and (ii) warrants as described below (collectively, the “July 2006 Warrants”). In October 2006, we raised $550,000 in aggregate gross proceeds from this offering, which represents the maximum amount that could be raised under this offering.

The principal and accrued interest on the July 2006 Notes is scheduled to be paid in one balloon payment at the end of the twelve month period. Under the terms of the July 2006 Notes, a holder may declare such note immediately due and payable upon the occurrence of any of the following events of default (each an "Event of Default"): (i)our failure to pay the principal, principal or other sum when due, (ii) any material representation or warranty that we make in the Note or certificate furnished in connection therewith shall be false or misleading in any material respect, (iii) our breach of any material covenant or other term or condition of the 2006 Subscription Agreement or the Note in any material respect, if such breach continues for 5 business days after notice thereof from the holder, (iv) the assignment by us for the benefit of creditors or application for or consent to the appointment of a receiver or trustee, or such receiver or trustee shall otherwise be appointed, (v) ) our insolvency or liquidation or a bankruptcy event or (vi) the entry of a monetary judgment or similar process in excess of $200,000 if such judgment remains unvacated for 30 days.

Each purchaser of the July 2006 Notes received warrants, exercisable over a period of two years form the date of issuance, to purchase 16,250 shares of our Common Stock for each $25,000 of principal loaned, at a per share exercise price equal to the lower of $1.50 or 35% less than the offering price at an initial public offering of our Common Stock during the warrant exercise period.

In the 2006 Subscription Agreements, we undertook to register the shares issuable upon the exercise of the July 2006 Warrants by April 18, 2007. We are registering 357,500 shares of our Common Stock issuable upon exercise of the July 2006 Warrants.

The description above is qualified in its entirety by reference to the forms of 2006 Subscription Agreement, the July 2006 Notes and the July 2006 Warrants attached to the Quarterly Report on 10-QSB for the three months ended September 30, 2006 that we filed on November 14, 2006. We urge you to read these documents carefully for more details regarding the provisions we describe below and for other provisions that may be important to you.

**Holders of the Piggy Back Rights**

We are also registering 948,949 shares of our Common Stock as well as an additional ,320,833 shares of our Common Stock issuable upon exercise of warrants held by persons with piggy back rights. Below is a summary of the terms of these warrants.

In January 2005 (prior to the Acquisition Transaction), SPO Ltd. issued to each of 10 investors its convertible promissory note in the aggregate principal amount of $300,000 (the "SPO 2005 Promissory Notes"). These notes, which were amended in July 2005 and December 2005, bore interest at an annual rate of 8%, and were payable on September 30, 2006. Pursuant to the amendment in December 2005, the Company assumed the SPO 2005 Promissory Notes. At the election of the holder, the notes are convertible into the Company's Common Stock at a per share price equal to the lesser of (i) 60% of the per share purchase price of any Company security subsequently sold by the Company (excluding certain shares issued upon exercise of securities outstanding on date of last amendment or subsequently issued to consultants) and (ii) $0.705. In September 2006 the holders of the SPO 2005 Promissory Notes converted all principal and interest accrued under the notes at a per share conversion price of $0.36 and, in respect thereof, a total of 948,949 shares of our Common Stock were issued to them.

In connection with the Acquisition Transaction, certain warrants issued by SPO Ltd. prior to the Acquisition transaction to a total of three persons in consideration of services rendered were transferred to us and, pursuant to such transfer, we are registering the resale of 83,333 shares issuable upon such warrants. As transferred to us, these warrants were exercisable for three years from the closing of a single transaction in which we raise at least $2 million in gross proceeds from the sale of our equity securities, at a per share exercise price equal to 40% less than the per share price in such transaction. In September 2006 the warrants were amended and pursuant thereto the exercise period was extended to August 31, 2009 and the exercise price was changed to the lesser of 60% of any new issuance

from the date of the original warrant or $0.705 per share. As of the date of this Registration Statement the per share exercise price is $0.36, subject to adjustment as provided above. The description above is qualified in its entirety by reference to the form of warrant attached as Exhibit 4.5 to this Registration Statement.

In connection with the Acquisition Transaction and as consideration for a loan in the principal amount of $100,000 advanced to SPO Ltd., we issued to the lender warrants for 25,000 shares of our Common Stock exercisable through August 31, 2008 at a per share exercise price of $0.75. The description above is qualified in its entirety by reference to the warrant attached as Exhibit 4.6 to this Registration Statement.

In connection with the Acquisition transaction and as consideration for a loan in the principal amount of $100,000 advanced to SPO Ltd., we issued to the lender warrants for 15,000 shares of our Common Stock exercisable through August 31, 2008 at a per share exercise price of $0.75. The description above is qualified in its entirety by reference to the warrant attached as Exhibit 4.7 to this Registration Statement.

In connection with a credit line agreement for up to $150,000, in February 2006 we issued to the provider of the credit line warrants for 60,000 shares of Common Stock exercisable through January 31, 2009 at a per share exercise price of $0.85. The description above is qualified in its entirety by reference to the warrant attached as Exhibit 4.8 to this Registration Statement.

In April 2006, we issued to two members of our advisory board warrants for a total of 30,000 shares of our Common Stock exercisable through November 14, 2009 at a per share exercise price of $0.60. The description above is qualified in its entirety by reference to the form of warrant attached as Exhibit 4.9 to this Registration Statement.

In September 2005 we issued to three persons warrants for an aggregate of 40,588 shares of our Common Stock which were exercisable through September 28, 2008 at a per share exercise price of $0.85. These warrants were issued in consideration of services rendered in connection with the placement of the SPO 2005 Promissory Notes. In September 2006, in connection with the conversion of the SPO 2005 Promissory Notes, we issued replacement warrants for 57,500 shares of our Common Stock exercisable through September 26, 2010 at a per share exercise price of $0.60. The description above is qualified in its entirety by reference to the form of warrant attached as Exhibit 4.10 to this Registration Statement.

Finally, on March 27, 2007 we and Innopex Limited entered into a Line of Credit Facility pursuant to which we can borrow up to maximum amount of $200,000, which can be drawn on demand at the discretion of the Company. The facility continues in effect until January 28, 2008. Amounts outstanding accrue interest at a per annum rate of 9% and accrued interest is payable on a quarterly basis, All amounts borrowed and accrued and unpaid interest need to be repaid by January 28, 2009. In consideration of the line of credit facility, we issued to the investor a warrant for 50,000 shares of our Common Stock, exercisable through March 27, 2010 at a per share exercise price of $1.50, of which warrants for 20,000 shares is exercisable immediately and the warrants for the remaining 30,000 shares exercisable only following (and subject to) our first draw-down under the facility. As of April 13, 2007, we have not drawn down any amounts under the line of credit facility. The description above is qualified in its entirety by reference to the warrant attached as Exhibit 4.11 and the Line of Credit Facility attached as Exhibit 10.12 to this Registration Statement.

## DIVIDEND POLICY

We have paid no dividends on our Common Stock and do not expect to pay cash dividends in the foreseeable future with respect to the Common Stock. It is the present policy of our board of directors to retain all earnings to provide funds for our growth. The declaration and payment of dividends in the future will be determined by our Board of Directors based upon our earnings, financial condition, capital requirements and such other factors as our board may deem relevant. We are not under any contractual restriction as to our present or future ability to pay dividends.

## MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our Common Stock is quoted on the Pink Sheets LLC's Electronic Inter-dealer Quotation and Trading System (the "Pink Sheets") under ticker symbol "SPOM". Trading of our Common Stock on the Pink Sheets has been sporadic and limited. There can be no assurance that an established trading market will develop, that the current market will be maintained or that a liquid market for our Common Stock will be available in the future. Prior to May 2005, although our Common Stock was quoted on the Pink Sheets under the symbol "UNDI", there was no active trading market for the Common Stock. Investors should not rely on historical stock price performance as an indication of future price performance.

The following table shows the quarterly high and low bid prices for our Common Stock over the last two completed fiscal years and the first completed quarter of the current fiscal year. The prices represent quotations by dealers without adjustments for retail mark-ups, mark-downs or commission and may not represent actual transactions.

| | LOW | HIGH |
|---|---|---|
| 2007 | | |
| First Quarter | $ 1.80 | $ 2.15 |

| | | |
|---|---|---|
| Year Ended December 31, 2006 | | |
| First Quarter | $ 1.25 | $ 2.25 |
| Second Quarter | $ 1.5 | $ 2.5 |
| Third Quarter | $ 1.9 | $ 3 |
| Fourth Quarter | $ 1.5 | $ 2.5 |
| | | |
| Year Ended December 31, 2005 | | |
| First Quarter | $ — | — |
| Second Quarter | $ 0.20 | 1.00 |
| Third Quarter | $ 0.65 | 1.00 |
| Fourth Quarter | $ 0.65 | 1.25 |

As of May 9, 2007, there were approximately 118 holders of record of our Common Stock. We believe that a number of shares of our Common Stock are held in either nominee name or street name brokerage accounts and, consequently, we are unable to determine the exact number of beneficial owners of our stock.

## MANAGEMENT'S DISCUSSION AND ANALYSIS AND RESULTS OF OPERATIONS

THE FOLLOWING DISCUSSION SHOULD BE READ IN CONJUNCTION WITH OUR FINANCIAL STATEMENTS AND THE NOTES RELATED TO THOSE STATEMENTS. SOME OF OUR DISCUSSION IS FORWARD-LOOKING AND INVOLVES RISKS AND UNCERTAINTIES. FOR INFORMATION REGARDING RISK FACTORS THAT COULD HAVE A MATERIAL ADVERSE EFFECT ON OUR BUSINESS, REFER TO THE RISK FACTORS SECTION OF THIS ANNUAL REPORT.

### OVERVIEW

We are engaged in the design, development and marketing of non-invasive pulse oximetry technologies to monitor blood oxygen saturation and heart rate for a variety of markets, including medical, homecare, sports and search & rescue. Pulse oximetry is a non-invasive process used to measure blood oxygen saturation levels and is an established procedure in medical practice.

We were originally organized under the laws of the State of Delaware in September 1981 under the name "Applied DNA Systems, Inc." On November 16, 1994, we changed our name to "Nu-Tech Bio-Med, Inc." On December 23, 1998, we changed our name to "United Diagnostic, Inc." Effective April 21, 2005, we acquired 100% of the outstanding capital stock of SPO Ltd. pursuant to a Capital Stock Exchange Agreement dated as of February 28, 2005 among the Company, SPO Ltd. and the shareholders of SPO Ltd., as amended and restated on April 21, 2005 pursuant to which we issued to the former shareholders of SPO Ltd. a total of 5,769,106 shares of the Company's Common Stock representing approximately 90% of the Common Stock then issued and outstanding.

We have generated significant operating losses since inception and we have a limited operating history upon which an evaluation of our prospects can be made. Our prospects must therefore be evaluated in light of the problems, expenses, delays and complications associated with a development stage company.

### CRITICAL ACCOUNTING POLICIES

The discussion and analysis of our financial condition and results of operations are based upon our audited consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to revenue recognition, bad debts, investments, intangible assets and income taxes. Our estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Actual results may differ from these estimates.

We have identified the accounting policies below as critical to our business operations and the understanding of our results of operations.

### REVENUE RECOGNITION

We generate revenues principally from sales of our products. Revenues from the sale of products are recognized when delivery has occurred, persuasive evidence of an arrangement exists, the vendor's fee is fixed or determinable, no further obligation exists and collection of is probable and there are no remaining significant obligations. Delivery is deemed to have occurred upon shipment of products from any of the distribution centers of the Company.

We also generate revenues from the provision of research and development services. Revenues generated from research and development services are recognized when such services are performed.

**INVENTORY VALUATION**

Inventories are stated at the lower of cost or market. Cost is determined as follows: raw materials, components and finished products - on the first in first out (FIFO) basis. Work-in-process - on the basis of direct manufacturing costs.

**USE OF ESTIMATES**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

**RESULTS OF OPERATIONS**

**COMPARISON OF THE YEAR ENDED DECEMBER 31, 2006 (the "2006 Period") AND THE YEAR ENDED DECEMBER 31, 2005 (the "2005 Period")**

REVENUES. Revenues for the 2006 Period were $3,714,000, an increase of 103% over revenues of $1,825,000 for the 2005 Period. Revenues were derived primarily from sales of our PulseOX 5500 TM designed for the medical and homecare markets.

COSTS OF REVENUES. Costs of revenues for the 2006 Period were $1,809,000 compared to $843,000 for 2005 Period. Costs of revenues include all costs related to manufacturing products and services and consist primarily of direct material costs, shipping and salaries and related expenses for personnel. Included in cost of revenues were non cash compensation benefits of $13,000 and $4,000 in respect of 2006 and 2005 respectively.

RESEARCH AND DEVELOPMENT EXPENSES. Research and development expenses consist primarily of expenses incurred in the design, development and testing of our products. These expenses consist primarily of salaries and related expenses for personnel, contract design and testing services, supplies used and consulting and license fees paid to third parties and are net of any government grants and development fees charged to third parties. Research and development expenses for the 2006 Period were $972,000 compared to $584,000 for the 2005 Period. The increase in research and development expenses for the 2006 Period as compared to 2005 Period is primarily attributable to the increase in employee and related compensation costs. Included in research and development expenses were non cash compensation benefits of $176,000 and $66,000 in respect of 2006 and 2005.

SELLING AND MARKETING EXPENSES. Selling and marketing expenses consist primarily of costs relating to compensation attributable to employees engaged in sales and marketing activities, promotion, sales support, travel and related expenses. Selling and marketing expenses for the 2006 Period and 2005 Period were $671,000 and $786,000, respectively. The decrease in sales and marketing during the 2006 Period is primarily attributable to the decrease of non cash compensation benefits to consultants and employees which amounted to $99,000 and $349,000 for the 2006 Period and 2005 Period, respectively, offset by the increase of employees engaged in sales and marketing activities and related compensation .

GENERAL AND ADMINISTRATIVE EXPENSES. General and administrative expenses primarily consist of salaries and other related costs for personnel in executive and other administrative functions. Other significant costs include professional fees for legal, accounting services. General and administrative expenses for the 2006 Period and 2005 Period were $923,000 and $782,000, respectively. The increase in general and administrative expenses during 2006 Period is primarily attributable to higher compensation costs and higher accounting and legal and professional expenses. Included in general and administrative expenses were non cash compensation benefits of $122,000 and $117,000 in respect of 2006 and 2005 respectively.

FINANCIAL EXPENSES, NET. Financial expense net, for the 2006 Period and 2005 Period were $4,302,000 and $617,000, respectively. Included in financial expenses were non cash compensation benefits to lenders and consultants and amortization of loan discounts of $4,097,000 and $370,000 in respect of 2006 and 2005 respectively.

NET LOSS. For the 2006 Period and 2005 Period we had a net loss of $4,963,000 and $2,038,000, respectively.

**LIQUIDITY AND CAPITAL RESOURCES**

At December 31, 2006, we had cash and cash equivalents of $836,000 compared to $493,000 at December 31, 2005. The increase in available cash resources is primarily attributable to the funds raised from the private placement of our securities discussed below.

We generated negative cash flow from operating activities of approximately $443,000 during the 2006 Period compared to $1,209,000 for the 2005 Period.

In December 2005 we completed the private placement to certain accredited investors that we commenced in April 2005 for the issuance of up to $1,544,000 of units of our securities, with each unit comprised of (i) our 18 month 6% promissory note (collectively, the "April 2005 Notes") and (ii) three year warrants to purchase up to such number of shares of our Common Stock as are determined by the principal amount of the Note purchased by such investor divided by $ 0.85 (collectively the "April 2005 Warrants"). In September 2006, we offered to the holders of the April 2005 Notes to revise certain of the terms of the original offering in order to facilitate an extension to the scheduled maturity date of the Note, (hereinafter the "Amendment"). The Amendment provides that (a) the maturity date of the April 2005 Notes is to be extended by one year from the original maturity date on the original note, (b) the exercise period of the April 2005 Warrants is to be extended from three to five years and the per share exercise price was adjusted to $0.60 and (c) the interest rate on the amounts outstanding under the April 2005 Notes was increased to 8%

per annum, effective July 12, 2006. The Amendment also provides that if we subsequently issue shares of our Common Stock at an effective per share exercise price less than that of the adjusted per share exercise price of the April 2005 Warrants during the adjusted exercise period, then the exercise price thereof is to be reduced to such lower exercise price; provided, that, this protection will not apply to certain of our equity or debt issuances (i) from approved stock option plans to employees, directors and other service providers, (ii) upon exercise of options and warrants outstanding as of September 27, 2006 and (iii) to our consultants that an unaffiliated third party would deem to be commercially reasonable and fair. In addition, the Amendment also provides that, subject to certain qualifications, our obligation to file a registration statement under the Securities Act of 1933, as amended, relating to the resale of our Common Stock underlying the April 2005 Warrants is extended to April 15, 2007. The Amendment became effective as of September 30, 2006. The Amendment resulted in a one time non-cash finance expense in the amount of approximately $2,500,000 being recognized in 2006. As of March 19, 2007, holders of Notes in the principal amount $1,439,000 have signed the Amendment and the holder of a note in the principal amount of $50,000 which matured on November 30, 2006 has requested repayment of principle and accrued interest. The Company is currently in contact with the remaining note holders of $55,000 of the April 2005 Notes with respect to obtaining their formal execution of the Amendment.

Our recent financings in 2006 are discussed below.

On February 1, 2006 we borrowed the principal amount of $150,000. This loan bears interest at an annual rate of prime plus 4% and is repayable in four equal installments every three calendar months through January 31, 2007. We issued to the holder of this indebtedness a three year warrant to purchase up to 60,000 shares of Common Stock at a per share exercise price of $0.85. As of December 31, 2006, we repaid $119,000 representing principal and accrued interest then due. On January 31, 2007 the final installment of $48,000 including accrued interest was repaid.

In January 2006 we and an institutional investor entered into an agreement pursuant to which we agreed to sell to such investor shares of our Common Stock at $0.70 per share for aggregate gross proceeds of $600,000. The private placement was completed in June 2006.

In July 2006, we commenced a private placement of units of our securities comprised of our (i) 8% promissory note that becomes due 12 months following issuance and (ii) warrants as described below. The principal and accrued interest on the promissory is scheduled to be paid in one balloon payment at the end of the twelve month period. Each purchaser of the note would receive warrants, exercisable over a period of two years form the date of issuance, to purchase 16,250 shares of our Common Stock for each $25,000 of principal loaned, at per share exercise price equal to the lower of $1.50 or 35% less than any the offering price at an initial public offering of our Common Stock during the warrant exercise period. We raised $550,000 in gross proceeds from this offering, which represents the maximum amount that could be raised under this offering.

Additionally, we obtained an extension of nine months to the scheduled maturity of our convertible promissory notes (collectively the "Notes") that had been raised in January 2005 from the private placement of our debt instruments and warrants, in the aggregate principal amount of $300,000. The Notes became payable on September 30, 2006; interest accrued at a per annum rate of 8%. At the election of the holder, the Notes are convertible into our Common Stock at a per share price equal to the lesser of (i) 60% of the per share purchase price of any security subsequently sold by us and (ii) $0.705. In September 2006, the outstanding principal and accrued interest were converted into 948,949 shares of our Common Stock.

Finally, in March 2007, we entered into a Line of Credit Facility with an institutional investor pursuant to which we can borrow up to $200,000, which can be drawn on demand at the discretion of the Company. The facility continues in effect until January 28, 2008. Amounts outstanding accrue interest at a per annum rate of 9% and accrued interest is payable on a quarterly basis, All amounts borrowed and accrued and unpaid interest need to be repaid by January 28, 2009. In consideration of the line of credit facility, we issued to the investor a warrant for 50,000 shares of our Common Stock, exercisable through March 27, 2010 at a per share exercise price of $1.50, of which warrants for 20,000 shares is exercisable immediately and the warrants for the remaining 30,000 shares exercisable only following (and subject to) our first draw-down under the facility. As of April 13, 2007, we have not drawn down any amounts under this line of credit facility.

We will need to raise additional funds to be able to satisfy our cash requirements over the next twelve months. Product development, corporate operations and marketing expenses will continue to require additional capital. Our current revenue from operations is insufficient to cover our current operating expenses and projected expansion plans. We therefore are aggressively seeking additional financing through the sale of our equity and/or debt securities to satisfy future capital requirements until such time as we are able to generate sufficient cash flow from revenues to finance on-going operations. No assurance can be provided that additional capital will be available to us on commercially acceptable or at all. Our auditors included a "going concern" qualification in their auditors' report for the year ended December 31, 2006. While we have raised approximately $1,300,000 in gross proceeds from the issuance of our debt and equity securities during 2006, such "going concern" qualification may make it more difficult for us to raise funds when needed. Additional equity financings may be dilutive to holders of our Common Stock.

**RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS**

(i) SFAS No. 155, “Accounting for Certain Hybrid Financial Instruments—an Amendment of FASB Statements No. 133 and 140” - In February 2006, the Financial Accounting Standards Board (the “FASB”) issued Statement of Financial Accounting Standards (“SFAS”) No. 155, “Accounting for Certain Hybrid Financial Instruments—an Amendment of FASB Statements No. 133 and 140” ("SFAS 155") to simplify and make more consistent the accounting for certain financial instruments. Namely, SFAS 155 amends SFAS No. 133, “Accounting for Derivative Instruments and Hedging Activities” to permit fair value remeasurement for any hybrid financial instrument with an embedded derivative that

otherwise would require bifurcation, provided that the whole instrument is accounted for on a fair value basis. SFAS 155 amends SFAS No. 140, “Accounting for the Impairment or Disposal of Long-Lived Assets” to allow for a qualifying special-purpose entity to hold a derivative financial instrument that relates to a beneficial interest other than another derivative financial instrument.

SFAS 155 applies to all financial instruments acquired or issued after the beginning of an entity’s first fiscal year that begins after September 15, 2006, with earlier application permitted. Accordingly, the Company will adopt SFAS 155 as of January 1, 2007. The adoption of SFAS 155 is not expected to have any effect on the Company's financial position or results of operations.

(ii) FASB Interpretation No. 48, “Accounting for Uncertainty in Income Taxes - an Interpretation of FASB Statement No. 109” - In June 2006, the FASB issued FASB Interpretation No. 48 (“FIN-48”), “Accounting for Uncertainty in Income Taxes - an Interpretation of FASB Statement No. 109.” The interpretation clarifies the accounting for uncertainty in income taxes recognized in an entity's financial statements in accordance with SFAS No. 109, “Accounting for Income Taxes.” Specifically, FIN-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. The provisions of FIN-48 are effective for financial statements for fiscal years beginning after December 15, 2006. Accordingly, the Company will adopt FIN-48 as of January 1, 2007. The adoption of FIN-48 is not expected to have a material effect on the Company’s financial position or results of operations.

(iii) SFAS No. 157, “Fair Value Measurements” - In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements" ("SFAS 157"), which defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements. SFAS 157 applies whenever other accounting standards require or permit assets or liabilities to be measured at fair value. Accordingly, it does not expand the use of fair value in any new circumstances. Fair value under SFAS 157 is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This Standard clarifies the principle that fair value should be based on the assumptions market participants would use when pricing an asset or liability. In support of this principle, SFAS 157 establishes a fair value hierarchy that prioritizes the information used to develop those assumptions. The fair value hierarchy gives the highest priority to quoted prices in active markets and the lowest priority to unobservable data, for example, a reporting entity's own data. Under SFAS 157, fair value measurements would be separately disclosed by level within the fair value hierarchy. SFAS 157 is effective for fiscal years beginning after November 15, 2007. Accordingly, the Company is to adopt SFAS 157 on January 1, 2008. The adoption of SFAS 157 is not expected to have a material effect on the Company’s financial position or results of operations.

(iv) Staff Accounting Bulletin No. 108, "Considering the Effects of Prior Year Misstatements When Quantifying Misstatements in Current Year Financial Statements" - In September 2006, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 108, "Considering the Effects of Prior Year Misstatements When Quantifying Misstatements in Current Year Financial Statements" ("SAB 108"), which provides guidance on the consideration of the effects of prior year misstatements in quantifying current year misstatements for the purpose of a materiality assessment two approaches are commonly used to evaluate the materiality of misstatements or errors in financial statements: the roll-over, also known as the current-period or income-statement approach, and the iron curtain, also known as the cumulative or balance-sheet approach. The roll-over approach quantifies a misstatement based on the amount of the error originating in the current-period income statement. This approach could allow balance sheet items to grow each year by immaterial amounts, until the cumulative error becomes material. The iron curtain approach quantifies a misstatement based on the effects of correcting the misstatement existing in the balance sheet at the end of the current period. This approach does not consider the income statement effects of correcting prior year misstatements in the current year to be errors.

The reliance on only one of these approaches, to the exclusion of the other, does not appropriately quantify all misstatements that could be material to financial-statement users. Accordingly, SAB 108 will require quantification of financial statement errors based on the effects of the error on each of an entity's financial statements and the related financial statement disclosures. This model is commonly referred to as a dual approach because it essentially requires quantification of errors under both the iron-curtain and the roll-over approaches.

SAB 108 is effective for annual financial statements covering the first fiscal year ending after November 15, 2006. From a transition perspective, SAB 108 permits companies to record the cumulative effect of initially applying the dual approach in the first year ending after November 15, 2006 by recording any necessary correcting adjustments to the carrying values of assets and liabilities as of the beginning of that year with the offsetting adjustment recorded to the opening balance of retained earnings. The initial adoption of SAB 108 had no affect on the Company's financial position, results of operations or cash flows

## DESCRIPTION OF BUSINESS

### History

SPO Medical Inc. was originally organized under the laws of the State of Delaware in September 1981 under the name "Applied DNA Systems, Inc." On November 16, 1994, the company changed its name to "Nu-Tech Bio-Med, Inc." and on December 23, 1998, its name was changed to "United Diagnostic, Inc." Effective April 21, 2005, we acquired (the "Acquisition Transaction") 100% of the outstanding capital stock of SPO Medical Equipment Ltd., a company incorporated under the laws of the State of Israel ("SPO Ltd."), pursuant to a Capital Stock Exchange Agreement dated as of February 28, 2005 among SPO Medical Inc., SPO Ltd. and the shareholders of SPO Ltd., as amended and restated on April 21, 2005. In exchange for the outstanding capital stock of SPO Ltd., we issued to the former shareholders of SPO Ltd. a total of 5,769,106 shares of its common stock, par value $0.01 per share ("Common Stock"), representing approximately 90% of the Common Stock then issued and outstanding after giving effect to the Acquisition Transaction. As a result of the Acquisition Transaction, SPO Ltd. became our wholly owned subsidiary and we changed our name from United Diagnostic Inc. to "SPO Medical Inc." Upon consummation of the Acquisition Transaction, we effected a forward subdivision of our Common Stock issued and outstanding on a 2.65285:1 basis.

Following the Acquisition Transaction, we began to engage in the business that SPO Ltd. was engaged in.

### Business Overview

Since its incorporation in August 1995, SPO Ltd. has been engaged in the design, development and marketing of non-invasive pulse oximetry technologies to monitor blood oxygen saturation and heart rate for a variety of markets, including medical, homecare, sports and search & rescue. Pulse oximetry is a non-invasive process used to measure blood oxygen saturation levels and is an established procedure in medical practice.

We utilize proprietary and patented technologies to deliver oximetry functionality through innovative commercial products that address such applications as emergency care, home monitoring, sleep apnea, cardiovascular performance, cardiac rehabilitation and the physiological monitoring of military personnel and safety care workers. We have developed and patented proprietary technology that enables the use of pulse oximetry in a reflectance mode of operation (i.e. a sensor that can be affixed to a single side of a body part). This technique is known as Reflectance Pulse Oximetry (RPO). Using RPO, a sensor can be positioned on various body parts, hence minimizing problems of motion and poor profusion. The unique design features contribute to substantially lower electric power requirements and enable a wireless, stand-alone configuration with expanded commercial possibilities.

### Background

Pulse oximetry is an important non-invasive process used to both measure blood oxygen saturation levels (SpO2) by monitoring the percentage of hemoglobin (Hb) that is saturated with oxygen and measure heart rate. This procedure has been used regularly in hospitals during the past twenty years and is established as an essential measurement in medical practice to ensure maintenance of adequate oxygen and prevention of respiratory difficulty. In many disease states, oxygen saturation is one of the most important vital signs to monitor.

There are two methods to measure pulse oximetry by transmission through a body part or by reflection. In general, the transmission method can only be used on certain areas of the body, such as fingers, earlobes, etc. Furthermore, in some instances when the transmission method is used, physiological conditions such as stress and temperature can adversely affect the accuracy of pulse oximetry readings.

Since pulse oximetry measurements taken on-site in an emergency, at local medical practices, and/or in home care can save lives and curtail intervention costs, mobile units have been developed. However, mobile oximetry units have not been widely adopted because their power requirements (and hence limited battery life) often make them impractical. In addition, existing mobile units require patients to remain absolutely stationary to produce reliable results, further reducing their practicality.

**Our solution**

Responding to the need for life-saving information in the field where people cannot be absolutely stationary, we have developed patented sensors that work accurately during mild physical activity. This technique uses a reflectance method (known as RPO) whereby a very small sensor placed on the body at various locations has the ability to measure oxygen saturation and heart pulse rate. We have incorporated our patented reflectance technology into portable devices for medical and consumer applications. Moreover, these devices operate at a power requirement approximately 1/50th of that compared to other commercially available portable systems. This puts pulse oximetry into the hands medical practitioners and emergency personnel on-site for the safety and benefit of all and offers the opportunity to create new commercial and consumer applications.

We intend to leverage our core technologies to develop new, innovative product applications. For instance, we are currently investigating monitoring of other vital sign information that can be obtained using other optical, non-invasive techniques including :

- Blood pressure using reflectance oximetry
- Billirubin levels
- Monitoring glucose levels in blood
- Hemoglobin count in blood

**Products**

The following details our products utilizing our unique pulse oximetry technology.

PulseOx 5500TM — a stand-alone commercial RPO spot check monitor for SpO2 and heart rate. The PulseOx 5500TM uses SPO patented technology to provide a medical device which is easier to use for many patients and less expensive to operate than any other device that is commercially available. Its main advantages include: (i) long lasting battery with more than 1,000 hours, using only a fraction of the power used by competitive devices and (ii) resistance to many forms of motion, reducing its susceptibility to the motion artifacts which are typical of other pulse oximetry devices. The PulseOx 5500 was first introduced commercially during the fourth quarter of 2004. The device was approved and registered by the Food and Drug Administration ("FDA") in June 2004. The device also carries the CE (European Directives 93/42/EEC and 90/385/EEC for regulatory and safety standards of medical equipment) and Canadian Standards Association (CSA) mark for safety and audited manufacturing processes, all of which were obtained in February 2005.

Check MateTM — addresses the sports and aviation market's demand for a lightweight, inexpensive monitor for measuring SpO2 and heart rate during physically active and high-altitude activities. It offers the user a greater ability to monitor these vital signs under motion and is less expensive than most other available devices. The Check Mate was first introduced commercially during third quarter of 2005. The Check Mate does not require FDA approval or registration. It carries the CE and CSA mark for safety and audited manufacturing processes.

PulseOx 7500TM —a monitor for extended monitoring of SpO2 and heart rate by means of RPO. The monitor is being initially marketed for pre screening of sleep apnea sufferers. Our monitor's main advantages include: (i) long lasting battery equivalent to a month's use of monitoring using only a fraction of the power used by competitive devices and hence a lower cost of ownership and (ii) resistance to many forms of motion, reducing its susceptibility to the motion artifacts which are typical of other similar pulse oximetry devices.

**Research & Development / Products Under Design and Development**

We currently have in various stages of development other devices utilizing its oximetry technology. These include the following:

Handheld — a stand-alone commercial RPO spot check monitor for SpO2 and heart rate. The Handheld will use our patented technology to provide a medical device which is easier to use and have lower operating costs than other devices currently widely used in hospitals and related environments. The device's main advantages are expected to include: (i) long lasting battery with more than 1,000 hours, using only a fraction of the power used by competitive devices and (ii) resistance to many forms of motion, reducing its susceptibility to the motion artifacts which are typical of other pulse oximetry devices

PedOMetrixTM — a monitor being designed specifically for the use with infants. This unique monitor is being designed for continual non-invasive monitoring of an infant.

Our research and development activities as well as product design activities are primarily conducted in our research and development subsidiary SPO Ltd. located in Israel. During our 2006 and 2005 fiscal years, we expended approximately $972,000 and $629,000, respectively, on the research and development.

**Business Strategy**

Our mission is to build a profitable business that develops and commercializes medical biosensor products that improve people's lives and increases stockholder value. To achieve this mission, we are pursuing the following

business strategies:

- Establish our brand in both the medical and consumer marketplaces. The initial product launch PulseOx 5500TM was a demonstration of our strategy to establish our company within the most demanding part of the market - medical devices requiring FDA approval and requiring a doctor's prescription. Thereafter, subject to regulatory approval consumer applications using the technology will be marketed for direct purchase at appropriate outlets (e.g., retail drug chains, sports and fitness establishments, distributors of safety and security products).

- Partner with highly qualified, focused companies, internationally. We intend to collaborate with leading medical device resellers capable of distributing the products to the target market. For instance, we currently sell the PulseOx 5500(TM) through reputable, established medical device distributors serving North American markets and the European, Asian and Latin American markets. Other medical products may be distributed by these and other distributors. We anticipate that our other consumer products, such as the Check Mate(TM), will be distributed by companies with access to its target market which includes sports enthusiasts. Finally, with medical and consumer products developed jointly with other companies, the most appropriate distribution channels will be used for each product and application.

- Research and Development. Our research and development strategy is to continually improve and expand our product offerings by leveraging existing and newly developed proprietary technologies, as well as those of our collaborators, into new product offerings. We intend to pursue a multi-disciplinary approach to product design that includes substantial electrical, mechanical, software and biomedical engineering efforts. We are currently focusing research and development programs on expanding our current product offering and investigations in to other non-invasive optical techniques for blood analysis of other vital signs in blood. In addition, we have established relationships with leading teaching hospitals and academic institutions for the purpose of clinically evaluating its new products. We have consulting arrangements with physicians and scientists in the areas of research, product development and clinical evaluation.

**Suppliers**

Our products are made of components which we manufacture or which are usually available from existing and alternate sources of supply. Some of our products are manufactured through agreements with unaffiliated companies. We purchase certain components from single or preferred sources of supply. The use of single or preferred sources of supply increases our exposure to price increases and production delays.

We outsource our primary manufacturing operations. We utilize contract manufacturers that are ISO 13485:2003 certified. However, the outsourcing of these operations may mean that some degree of risks related to delivery schedules, yields, and other factors are not directly under our control.

**Marketing and Sales Organization**

Our products are sold primarily through resellers in the United States and a combination of resellers and independent distributors in international markets. Our primary markets include home care, physicians, hospitals, other medical institutions and general home-care providers.

We provide service and maintenance to purchasers of our products under warranty. We employ service representatives in the United States and Europe and maintain service facilities in the United States and through our resellers in Europe and elsewhere.

**Patents and Proprietary Information**

We currently rely on a combination of patent, trade secret, copyright and trademark law, as well as non-disclosure agreements and invention assignment agreements, to protect proprietary information. However, such methods may not afford complete protection and there can be no assurance that other competitors will not independently develop such processes, concepts, ideas and documentation. We hold three patents issued by the United States Patent and Trademark Office ("USPTO") covering various aspects of our unique sensors for radiance based diagnostics using pulse oximetry. Although we believe that our existing issued patents provide a competitive advantage, there can be no assurance that the scope of our patent protection is or will be adequate to protect our technologies or that the validity of any patent issued will be upheld in the future.

Because of the uncertainty of patent protection and the unavailability of patent protection for certain processes and techniques, our policy is to require our employees, consultants, other advisors, as well as utility and design collaborators, to execute confidentiality and assignment of invention agreements upon the commencement of employment, consulting or advisory relationships. These agreements generally provide that all confidential information developed or made known to a party by us during the course of the party's association with the Company is to be kept confidential and not to be disclosed to third parties except in specific circumstances. In the case of employees and consultants, the agreements also provide that all inventions conceived by the individual in the course of their employment or consulting relationship will be our exclusive property.

**Employees**

As of April 12, 2007, we employed 22 full-time employees, of which four work out of our corporate offices in California and 18 out of facilities in Israel. None of these employees is subject to collective bargaining agreements.

**Competition**

We believe that hospitals and other medical institutions choose among competing products on the basis of product performance, features, price and service. In general, we believe that price has become an important factor in hospital

purchasing decisions because of pressure to cut costs. These pressures on hospitals result from federal and state regulations that limit reimbursement for services provided to Medicare and Medicaid patients. There are also cost containment pressures on healthcare systems outside the U.S.A., particularly in certain European countries.

There are number companies, some of which are substantially larger than we are and with significantly more resources, are engaged in manufacturing competing products. Our competition is primarily in the traditional medical market. Our competitors include Nellcor, a unit of the Tyco Healthcare division of Tyco International Ltd; Nonin Medical Inc. of Plymouth, Minnesota, a privately owned company; and Smiths Medical PM Inc. of Waukesha, WI, which is the designer, manufacturer, and distributor of the BCI(R) brand of patient monitoring equipment which competes with the SPO PulseOx 5500TM units.

**Governmental Regulations**

The manufacture and sale of our products are subject to extensive regulation by numerous governmental authorities, principally by the FDA and corresponding foreign agencies. The FDA administers the Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder. Our PulseOx 5500TM and PulseOx 7500TM are sold in the United States and are subject to the FDA's standards and procedures for the manufacture of medical devices and our facilities are subject to inspection by the FDA for compliance with such standards and procedures.

The FDA classifies each medical device into one of three classes depending on the degree of risk associated with the device and the extent of control needed to ensure safety and effectiveness. The Company's PulseOx 5500TM and the PulseOx 7500TM have been classified by the FDA as Class II device and has secured a 510(k) pre-market notification clearance before being introduced into the United States market. For additional products, the process of obtaining 510(k) clearance typically takes several months and may involve the submission of limited clinical data supporting assertions that the product is substantially equivalent to an already approved device or to a device that was on the market before the enactment of the Medical Device Amendments of 1976.

Every company that manufactures or assembles medical devices to be sold in the United States is required to register with the FDA and adhere to certain "good manufacturing practices" in accordance with the FDA's Quality System Regulation which regulates the manufacture of medical devices, prescribes record keeping procedures and provides for the routine inspection of facilities for compliance with such regulations. The FDA also has broad regulatory powers in the areas of clinical testing, marketing and advertising of medical devices.

Medical device manufacturers are routinely subject to periodic inspections by the FDA. If the FDA believes that a company may not be operating in compliance with applicable laws and regulations, it can:

- place the company under observation and re-inspect the facilities; o issue a warning letter apprising of violating conduct;
- detain or seize products;
- mandate a recall;
- enjoin future violations; and
- assess civil and criminal penalties against the company, its officers or its employees.

We are also subject to regulation in each of the foreign countries in which we sell our products. Many of the regulations applicable to our products in such countries are similar to those of the FDA. The national health or social security organizations of certain countries require our products to be qualified before they can be marketed in those countries.

**AVAILABLE INFORMATION**

Our Internet website is located at http://www.spomedical.com. This reference to our Internet website does not constitute incorporation by reference in this report of the information contained on or hyperlinked from our Internet website and such information should not be considered part of this report.

The public may read and copy any materials we file with the Securities and Exchange Commission ("SEC") at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Rooms by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The SEC's Internet website is located at http://www.sec.gov .

**DESCRIPTION OF PROPERTY**

We do not own any real property. Our corporate headquarters are located at 21860 Burbank Blvd, North Building Suite 380, Woodland Hills California and are currently comprised of approximately 430 square feet. We use these premises primarily for our corporate offices. The current monthly rental under the lease is approximately $2,500. The

lease term is scheduled to expire in June 2007 and has an extension option of a further six months, the rental cost will rise to $2,600 from April 1, 2007. We anticipate that we will be able to renew and continue to rent on a month-by-month basis on substantially the same lease terms.

We also lease approximately 1290 square feet in Kfar Saba, Israel which is used for administrative offices for our subsidiary SPO Ltd. under a lease that expires in January 2008. with a further option to extend it through January 2009. In addition, we also lease approximately 3230 square feet in Kiryat Malachi, Israel which is used by SPO Ltd. for research the research and development activities under a lease that expires in August 2011 The aggregate monthly rental payment for both of the leases in Israel are approximately $3,000.

We believe that our facilities are generally in good condition and suitable to carry on our business. We also believe that, if required, suitable alternative or additional space will be available to us on commercially reasonable terms.

## LEGAL PROCEEDINGS

We are not involved in any pending legal proceedings that we anticipate can result in a material adverse effect on our business or operations.

## MANAGEMENT

The individuals who serve as our executive officers and directors are:

| NAME | AGE | POSITION |
|---|---|---|
| Michael Braunold | 47 | President, Chief Executive Officer and Director |
| Richard H. Ryan | 55 | Chief Operating Officer |
| Jeff Feuer | 42 | Chief Financial Officer |
| Israel Sarussi | 56 | Chief Technology Officer |
| Pauline Dorfman | 42 | Director (1) |
| Sidney Braun | 47 | Director (1) |

(1) Audit Committee and Compensation Committee Member.

The business experience, principal occupations and employment, as well as the periods of service, of each of our directors and executive officers during at least the last five years are set forth below.

MICHAEL BRAUNOLD has been Chief Executive Officer of SPO Ltd. since March 1998 and the President and Chief Executive Officer of the Company since May 18, 2005. Prior to March 1998, Mr. Braunold was Senior Director of Business Development at Scitex Corporation Ltd., a multinational corporation specializing in visual information communication. In such capacity, Mr. Braunold played a strategic role in managing a team of professionals assigned to M&A activities. During his 12-year tenure at Scitex, he held various positions within the worldwide organization, including a period in the United States as Vice President of an American subsidiary of Scitex specializing in medical imaging. From March 2000 through September 2000, Mr. Braunold was also the Chief Executive Officer and Chairman of Ambient Corporation, a Delaware company, that specializes in the implementation of a proposed comprehensive high-speed communication infrastructure that is designed to utilize existing electrical power distribution lines as a high-speed communication medium. Mr. Braunold served as a director of Amedia Networks, Inc. (formerly TTR Technologies, Inc.) from February 2000 through August 2002. Mr. Braunold obtained a Bachelor of Science degree with honors in Engineering and Management Sciences from Imperial College Business School, London.

RICHARD H. RYAN has been Chief Operating Officer of the Company since May 2005. Prior to joining Philips Medical Systems in 2001, Mr. Ryan was contracted by Agilent Technologies, where he assisted in the successful divestiture of its Healthcare Solutions Group to Philips Medical Systems; he also oversaw the transfer of three production lines from Xing Dao, in Mainland China, to a local subsidiary in California. Following the acquisition by Philips, he was asked to join the corporate management team to help set up their new Global Materials Organization (the GMO) and was a founding member of its Executive Board. During his tenure at Philips Medical Systems, Mr. Ryan was instrumental in driving a cultural change in supplier management, creating new supply chain opportunities in Asia while reducing costs at most of the company's manufacturing sites worldwide.

JEFF FEUER has been Chief Financial Officer of the Company since July 14, 2005. Prior to joining the Company, Mr. Feuer served in similar capacities at Transpharma Medical Ltd., a biomedical device start-up company (January 2004 through May 2005), and Finjan Software Inc., a security software company (September 1999 through September 2003). From July 1996 to September 1999, he served as corporate controller of Aladdin Knowledge Systems, Ltd., an Israeli based NASDAQ company. Prior to this he was a senior auditor in public accounting both in Israel and the UK.

ISRAEL SARUSSI has been the Chief Technology Officer of SPO Ltd. since its inception in 1996 and Chief Technology Officer of the Company since April 21, 2005. Prior to joining SPO Ltd., Mr. Sarussi established a private company specializing in computer systems for agricultural applications. Israel has held various technical positions at

several hi-tech Israeli companies including Elta Electronics, a company specializing in military communications, where he was assigned to advanced development projects for the Israeli Air Force. He holds a degree in Electronic Engineering from Ben Gurion University, Be'ersheba.

PAULINE DORFMAN has served as a director since April 21, 2005. Since January 2001 Ms. Dorfman, a qualified chartered accountant and chartered business valuator, has been a consultant that assists government, commercial business, law and accounting firms in the area of valuations, forensic investigations, litigation support and dispute resolution. Ms. Dorfman specializes in conducting analysis and financial investigations in connection with valuations for various purposes such as international development disputes, income tax, estate planning, matrimonial disputes, and economic damage quantification for breach of contract and insurance related matters such as expropriations, business interruptions and personal injuries. Prior to this assignment, Ms. Dorfman worked for 10 years with the Toronto Dominion Bank in the finance and commercial lending areas analyzing the financial risk of various bank investments and strategies, assisting in the development of new bank products, developing accounting policies and controls and meeting the external and internal financial reporting requirements of the bank.

SIDNEY BRAUN has served as a director since April 21, 2005. From June 2004 to September 2006, Mr. Braun has served as the President and Chief Operating Officer for Med-Emerg International Inc. (MEII), a company incorporated in the Province of Ontario and continues to serve on the board of directors of MEII. Since September 2006, Mr. Braun is also a director of Romlight International Inc., a developer and manufacturer of electronic ballasts and Romlight International (Canada) Inc.. Mr. Braun has extensive experience in commerce both in North America and Europe, including manufacturing, distribution and trading. Prior to his position at MEII and Romlight, Mr. Braun worked for 7 years as an independent consultant to several large state-owned corporations from the former Eastern European block on developing business strategies and adapting to new working conditions in western markets. In addition, Mr. Braun developed expertise in emerging financial markets in Europe and introduced several companies to the UK and German capital markets.

**Committees of the Board of Directors**

Our Board of Directors operates with the assistance of the Audit Committee and the Compensation Committee. Due to the small size of our Board, we do not presently maintain a formal nominating committee. The entire Board participates in the process of nominating candidates for the Board of Directors.

The function of the Audit Committee is to (i) make recommendations to the full Board of Directors with respect to appointment of our independent public accountants, and (ii) meet periodically with our independent public accountants to review the general scope of audit coverage, including consideration of internal accounting controls and financial reporting.

The Board of Directors has determined that Pauline Dorfman is an "Audit Committee Financial Expert" for purposes of the SEC's rules. The Board believes that Ms. Dorfman meets the independence criteria set out in Rule 4200(a)(14) of the Marketplace Rules of the National Association of Securities Dealers and the rules and other requirements of the SEC.

The Compensation Committee sets compensation policy and administers our cash and equity incentive programs for the purpose of attracting and retaining skilled executives who will promote the Company’s business goals and build shareholder value. The committee is also responsible for reviewing and making recommendations to the Board regarding all forms of compensation to be provided to the Company’s named executive officers, including stock compensation and bonuses.

***Board of Directors; Appointment of Officers***

All directors are elected by a plurality vote at the annual meeting of the shareholders, and shall hold office until his successor is duly elected and qualified. Any vacancy occurring in the Board of Directors may be filled by the shareholders, the Board of Directors, or if the Directors remaining in office constitute less than a quorum of the Board of Directors, they may fill the vacancy by the affirmative vote of a majority of the Directors remaining in office. A director elected to fill a vacancy is elected for the unexpired term of his predecessor in office. Any directorship filled by reason of an increase in the number of directors shall expire at the next shareholders' meeting in which directors are elected, unless the vacancy is filled by the shareholders, in which case the term shall expire on the later of (i) the next meeting of the shareholders or (ii) the term designated for the director at the time of creation of the position being filled.

Our executive officers are appointed by our board of directors. Each officer shall hold office until the earlier of: his death; resignation or removal from office; or the appointment and qualification of his successor.

**CODE OF ETHICS**

We have adopted a code of ethics that applies to our chief executive officer, president, chief financial officer, controller and others performing similar executive and financial functions at the Company. A copy of our policy was attached as an exhibit to our annual report on Form 10-KSB for the year ended December 31, 2005. We intend to satisfy the disclosure requirement under Item 10 of Form 8-K regarding an amendment to, or waiver from, a provision of this code of ethics by posting such information on our Website, at the address and location specified above.

**EXECUTIVE COMPENSATION**

The following table sets forth all compensation for the last fiscal year awarded to, earned by, or paid to our Chief Executive Officer and the two most highly paid executive officers serving as such at the end of 2006 whose salary and bonus exceeded $100,000 for the year ended December 31, 2006 (the "Named Executive Officers").

**SUMMARY COMPENSATION TABLE**

| Name & Principal Position | Year | Salary ($) | Bonus ($) | Option Awards ($) (1) | All Other Compensation ($) | Total ($) |
|---|---|---|---|---|---|---|
| MICHAEL BRAUNOLD<br>President and Chief Executive Officer | 2006 | $ 165,041 | — | –$ | 52,976(2) | $ 218,017 |
| ISRAEL SARUSSI<br>Chief Technology Officer | 2006 | $ 173,608 | — | –$ | 48,201(3) | $ 221,809 |
| RICHARD H. RYAN<br>Chief Operating Officer | 2006 | 152,885 | –$ | 55,668 $ | 12,444(4) | $ 220,997 |

1. Amounts in this column reflect the expense recognized by us for accounting purposes calculated in accordance with FASB Statement of Financial Accounting Standards No. 123R (“FAS 123R”) with respect to employee stock options issued under the Company's 2005 Incentive Plan in 2005. The assumptions used to calculate the fair value of stock option grants under FAS 123R, were: expected holding period of 10 years, risk free interest rate of 2.63%, no dividend yield and volatility of 100%.

2. Reflects payments made by us in connection with a leased automobile and related benefits ($12,567) and contributions to insurance premiums paid under Israeli law for pension, severance and further education funds ($40,409).

3. Reflects payments made by us in connection with a leased automobile and related benefits ($14,486) and contributions to insurance premiums paid under Israeli law for pension, severance and further education funds ($33,716).

4. Reflects payments made by us for health insurance contributions.

None of the Named Executive Officers received any option grants during the fiscal year ended December 31, 2006.

**Outstanding Equity Awards at Fiscal Year End**

The following table sets forth information concerning unexercised options and stock that has not vested for each of our executive officers named in the Summary Compensation Table that are outstanding as of December 31, 2006.

**OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END — DECEMBER 31, 2006**

| Name | Number of Securities Underlying Unexercised Options (#) Exercisable | Number of Securities Underlying Unexercised Options (#) Unexercisable | Equity Incentive Plan Awards: Number of Securities Underlying Unexercsied Unearend Options (#) | Option Exercise Price ($) | Option Expiration Date |
|---|---|---|---|---|---|
| Michael Braunold | 250,000(1) | — | –$ | 0.60 | 12/22/15 |
| Israel Sarusi | —(2) | — | — | — | — |
| Richard H. Ryan | 150,000(3) | 50,000 | –$ | 0.05 | 5/1/15 |

(1) Options were issued under our 2005 Equity Incentive Plan on December 22, 2005 and were fully vested upon issuance.

(2) Does not include Warrants for 446,383, issued to Mr. Sarusi on April 21, 2005 in exchange for warrants in SPO Ltd held prior to Acquisition Transaction.

(3) Options were issued under our 2005 Equity Incentive Plan on May 1, 2005. Options for 150,000 shares had vested as of December 31, 2006. Options for the remaining 50,000 shares are scheduled to vest on May 1, 2007.

**EMPLOYMENT AGREEMENTS WITH EXECUTIVE OFFICERS**

MICHAEL BRAUNOLD. On May 18, 2005, we entered into an employment agreement with Michael Braunold, pursuant to which he serve as our Chief Executive Officer and President. On such date, Mr. Braunold and SPO Ltd., entered into an employment agreement pursuant to which Mr. Braunold serves as SPO Ltd.'s Chief Executive Officer. Each of the agreements with us and SPO Ltd. has an initial term of three years commencing on the date of the agreement and is automatically renewable for successive two year terms unless we or Mr. Braunold indicate in writing, upon 90 days prior to the scheduled termination of the initial term or any renewal term, that such party does not intend to renew the agreement. Mr. Braunold is paid a monthly salary of $13,250 under the agreement with SPO Ltd. Mr. Braunold is not entitled to a salary under the agreement with us but has been granted options under our 2005

Equity Incentive Plan to purchase 250,000 shares of our Common Stock at a per share exercise price of $0.60. The agreements may be terminated by Mr. Braunold for any reason on 60 days written notice or for Good Reason (as defined in the employment agreement) or by us for Just Cause (as defined in the employment agreement) or for any other reason. In the event of a termination by Mr. Braunold for Good Reason or by us for any reason other than Just Cause, we are to pay Mr. Braunold an amount equal to (i) if such termination occurs during the initial term of the agreement, the base salary then payable, if any, for the longer of (a) the period from the date of such termination to the end of the initial term as if the agreement had not been so terminated and (b) twelve months and (ii) if such termination occurs after the initial term, the base salary then payable, if any, for a period of twelve months as if the agreement had not been so terminated.

ISRAEL SARUSSI. In January 1998 SPO Ltd. entered into an employment agreement with Israel Sarussi and which was subsequently amended in 2002 and 2005. Pursuant to the agreement Mr. Sarussi serves as the SPO Ltd.'s Chief Technical Officer. The agreement with SPO Ltd. terminates on the earlier of: (i) Mr. Sarussi's death or disability, (ii) termination by SPO Ltd. without cause upon 12 months written notice; or (iii) termination of Mr. Sarussi with cause. Mr. Sarussi is paid a monthly salary of $13,250 under the agreement with SPO Ltd.

Each of these agreements includes certain customary intellectual property development rights, confidentiality and non-compete provisions that prohibit the executive from competing with us for one year, or soliciting our employees for one year, following the termination of his employment.

RICHARD RYAN. On May 18, 2005, we entered into an employment agreement with Richard H. Ryan pursuant to which Mr. Ryan serves as our Chief Operating Officer. The agreement has an initial term of two years. Under the agreement as originally entered into, Mr. Ryan was entitled to a monthly salary of $8,334 and entitled to a bonus based on the amount of our net sales during the first year of the agreement. In January 2006 the agreement with Mr. Ryan was amended pursuant to which his monthly salary was increased to $12,500 and the bonus provisions were deleted. In addition, in connection with his employment, in May 2005 Mr. Ryan was granted an option under our 2005 Incentive Plan to purchase up to 200,000 shares of our Common Stock, which option is scheduled to vest over two years vest from the date of grant and is at a per share exercise price of $0.05. The agreement may be terminated by Mr. Ryan on 60 days' notice or at our election on 90 days' notice without cause.

**COMPENSATION OF DIRECTORS**

We paid each outside director $15,000 per annum for service on our Board of Directors in 2006. In addition, we have granted stock options to directors to compensate them for their services. In June 2006 we issued to each of Pauline Dorfman and Sidney Braun options under our 2005 Non-Employee Directors Stock Option to purchase up to 25,000 shares of our Common Stock each at a per share exercise price of $0.85. In January 2007, we increased the Director fees in respect of each of our directors to $25,000 per annum

The following table summarizes data concerning the compensation of our non-employee directors for the fiscal year ended December 31, 2006.

| | Fees Earned or paid | Option Awards($) | Total |
|---|---|---|---|
| Sidney Braun | $ 15,000 | 35,535(1) | $ 50,535 |
| Pauline Dorfman | $ 15,000 | 35,535(1) | $ 50,535 |

(1) Amounts in this column reflect the expense recognized by the Company for accounting purposes calculated in accordance with FASB Statement of Financial Accounting Standards No. 123R (“FAS 123R”) with respect to employee stock options issued under the Company's 2005 Non-Employee Directors Stock Option Plan in 2005. For information on the assumptions used to calculate the value of stock option grants under FAS 123R, see Note 13 of the Company’s financial statements for the year ended December 31, 2006 included elsewhere in this report. Options are discussed in further detail in the Outstanding Equity Awards at Fiscal Year End Table. The assumptions used to calculate the fair value of stock option grants under FAS 123R, were: expected holding period of 3.5 years, risk free interest rate of 4.28%, no dividend yield and volatility of 100%.

**CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

None

**STOCK OWNERSHIP OF MANAGEMENT AND CERTAIN BENEFICIAL HOLDERS**

The following table sets forth information as of the close of business on May 9, 2007, concerning shares of our common stock beneficially owned by each director and named executive officer, each other person beneficially

owning more than 5% of our Common Stock and by all directors and executive officers as a group.

In accordance with the rules of the SEC, the table gives effect to the shares of common stock that could be issued upon the exercise of outstanding options and warrants within 60 days of April 12, 2007. Unless otherwise noted in the footnotes to the table and subject to community property laws where applicable, the following individuals have sole voting and investment control with respect to the shares beneficially owned by them. We have calculated the percentages of shares beneficially owned based on 19,335,525 shares of common stock outstanding at April 12, 2007.

| Name of Beneficial Owner (1) | Common Stock Percentage of Beneficially Owned (2) | Common Stock |
|---|---|---|
| Michael Braunold | 993,922(3) | 5.14% |
| Richard H. Ryan | 200,000(4) | 1.03% |
| Jeff Feuer | 120,000(5) | * |
| Israel Sarussi | 4,165,776(6) | 21.54% |
| Pauline Dorfman | 75,000(7) | * |
| Sidney Braun | 75,000(7) | * |
| All officers and directors as a group (6 persons) | 5,629,698 | 29.12% |

* Less than 1%

(1) Except as otherwise indicated, the address of each beneficial owner is c/o SPO Medical Inc., 21860 Burbank Blvd., North Building, Suite 380, Woodland Hills, CA 91367.

(2) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to the shares shown. Except where indicated by footnote and subject to community property laws where applicable, the persons named in the table have sole voting and investment power with respect to all shares of voting securities shown as beneficially owned by them.

(3) Includes 250,000 shares of our Common Stock that are issuable upon exercise of vested options issued under our 2005 Equity Incentive Plan (the "2005 Plan").

(4) Represents shares issuable upon exercise of vested options under the Company's 2005 Plan.

(5) Represents shares issuable upon exercise of options under the Company's 2005 Plan.

(6) Comprised of 3,719,393 shares of the Company's Common Stock and 446,383 shares of Common Stock issuable upon exercise of currently exercisable warrants.

(7) Represents shares issuable upon exercise of currently exercisable options under the Company's 2005 Non-Employee Directors Stock Option Plan (the "2005 Directors Plan").

## SELLING STOCKHOLDERS

Up to 4,586,109 shares of Common Stock are being offered under this Prospectus, all of which are being registered for sale for the account of the selling stockholders. Beneficial ownership is determined in accordance with SEC rules and includes voting or investment power with respect to the securities. In accordance with the rules of the SEC, the table gives effect to the shares of Common Stock that could be issued upon the exercise of outstanding warrants within 60 days of April 12, 2007.

The following table sets forth the shares beneficially owned, as of April 12, 2007, by the selling stockholders prior to the offering contemplated by this Prospectus, the number of shares each selling stockholder is offering by this Prospectus and the number of shares which each would own beneficially if all such offered shares are sold. The selling stockholders acquired their beneficial interests in the shares being offered hereby in the private placements described above under the caption "AGREEMENTS WITH THE SELLING STOCKHOLDERS" in which each such selling stockholder advised us that it purchased the relevant securities solely for investment and not with a view to or for resale or distribution of such securities.

| SELLING STOCKHOLDER | NUMBER OF SHARES OWNED BEFORE OFFERING | SHARES OFFERED PURSUANT TO THIS PROSPECTUS | COMMON STOCK TO BE BENEFICIALLY OWNED IF ALL SHARES OFFERED HEREUNDER ARE SOLD | |
|---|---|---|---|---|
| | | | SHARES | PERCENT |
| TOWER CAPITAL CORP | 382,758 | 98,000(1) | 284,758 | 1.47% |
| AARON & MINDA WAGSCHAL | 117,000 | 49,000(2) | 68,000 | * |
| BERNARDO GRAJOWER | 49,062 | 49,062(3) | — | — |
| MILDRED SEIDENFELD FAMILY TRUST | 196,247 | 196,247(4) | — | — |
| DAVID SCHWAB | 58,824 | 58,824(5) | — | — |
| ELIOT SEIDENFELD | 98,123 | 98,123(6) | — | — |
| CARTER & KATHLEEN UTZIG | 41,667 | 29,412(7) | — | — |

| | | | | |
|---|---|---|---|---|
| ELLIOT SINGER | 147,185 | 147,185(8) | — | — |
| STUART ELFLAND | 98,278 | 98,278(9) | — | — |
| SIDNEY BRAGINSKY | 113,324 | 113,324(10) | — | — |
| MIKE YEROUSHALMI | 98,507 | 98,507(11) | — | — |
| ELLIOT & RUTHIE SEIDENFELD | 98,507 | 98,507(12) | — | — |
| BARRY McDONALD | 235,507 | 98,507(13) | 137,000 | * |
| SY MARCUS | 246,472 | 246,472(14) | — | — |
| MITCHELL OZERI | 49,295 | 49,295(15) | — | — |
| MY BOSS'S DAUGHTER | 295,767 | 295,767(16) | — | — |
| JAY MARKOFF LIVING TRUST | 63,111 | 63,111(17) | — | — |
| BRAD MARKOFF AS TRUSTEE OF MRT | 63,111 | 63,111(18) | — | — |
| UVE PARTNERS LLC. | 317,522 | 317,522(19) | — | — |

| | | | | |
|---|---|---|---|---|
| MURRAY RUBIN | 108,672 | 108,672 (20) | — | — |
| KLONDIKE RESOURCES, INC. | 213,399 | 213,399 (21) | — | — |
| BEN BEAVERS | 121,496 | 121,496 (22) | — | — |
| JOSEPH LOBEL | 51,363 | 51,363 (23) | — | — |
| HOWARD BRESSLER | 144,222 | 144,222 (24) | — | — |
| JEFF EISENBERG | 299,495 | 299,495 (25) | — | — |
| RABBI Y LANDAU | 98,909 | 98,908 (26) | — | — |
| SIMON VOGEL | 35,294 | 35,294 (27) | — | — |
| JOSEPH ROSS | 49,457 | 49,457 (28) | — | — |
| SOLOMON ROSS | 49,457 | 49,457 (29) | — | — |
| HOWARD RUBIN | 99,077 | 99,077 (30) | — | — |
| JOEL KESSLER M.D. PROFIT SHARING PLAN | 99,022 | 99,022 (31) | — | — |
| MORALO BUSINESS S.A. | 97,500 | 97,500 (32) | — | — |
| AVI HAUPTMAN | 16,250 | 16,250 (32) | — | — |
| JOSH WANDERER | 81,250 | 81,250 (32) | — | — |
| RABBI Y. BENDER | 32,500 | 32,500 (32) | — | — |
| EDWARD LIFSHITZ | 300,000 | 7,800 (32) | 292,200 | 1.51% |
| YDT ENDOWMENT FUND | 32,500 | 32,500 (32) | — | — |
| HESHY SHERTZ | 16,250 | 16,250 (32) | — | — |
| V-1 LLC | 32,500 | 32,500 (32) | — | — |
| HCI PARTNERSHIP | 21,450 | 21,450 (32) | — | — |
| BRAD MARKOFF AS TRUSTEE OF MARKOFF TRUST | 19,500 | 19,500 (32) | — | — |
| 1270 CAPITAL LLC | 244,575 | 244,575 (33) | — | — |
| JOEL MALIN | 6,944 | 6,944 (34) | — | — |

| | | | | |
|---|---|---|---|---|
| INNOPEX LIMITED. | 135,000 | 135,000 (35) | — | — |
| 711129 ONTARIO LTD. | 15,000 | 15,000 (34) | — | — |
| ARTHUR EDELMAN | 15,000 | 15,000 (34) | — | — |
| THEODORE KOMPA | 79,079 | 79,079 (36) | — | — |
| JEFFREY GOLDRICH | 79,079 | 79,079 (36) | — | — |
| CHAGAI ZAMIR | 15,816 | 15,816 (36) | — | — |

(1) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 14,667 shares of Common Stock issuable upon conversion of the interest payable with respect to the April 2005 Notes ("Interest Shares").

(2) Represents 41,667 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 7,333 Interest Shares.

(3) Represents 41,667 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 7,395 Interest Shares.

(4) Represents 166,667 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 29,580 Interest Shares.

(5) Represents 58,824 shares of Common Stock issuable upon exercise of the April 2005 Warrants.

(6) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 14,790 Interest Shares.

(7) Represents 29,412 shares of Common Stock issuable upon exercise of the April 2005 Warrants.

(8) Represents 125,000 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 22,185 Interest Shares.

(9) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 14,945 Interest Shares.

(10) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants, 14,991 Interest Shares and 15,000 shares of Common Stock issuable upon exercise of Other Warrants.

(11) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 15,174 Interest Shares.

(12) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 15,174 Interest Shares.

(13) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 15,174 Interest Shares.

(14) Represents 208,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 38,139 Interest Shares.

(15) Represents 41,667 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 7,628 Interest Shares.

(16) Represents 250,000 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 45,767 Interest Shares.

(17) Represents 53,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 9,778 Interest Shares.

(18) Represents 53,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 9,778 Interest Shares.

(19) Represents 250,833 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 46,085 Interest Shares and 20,604 shares of Common Stock issuable upon exercise of other warrants (the “Other Warrants”).

(20) Represents 25,000 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 4,593 Interest Shares and 79,079 shares of Common Stock.

(21) Represents 46,667 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 8,574 Interest Shares and 158,158 shares of Common Stock.

(22) Represents 35,833 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 6,584 Interest Shares and 79,079 shares of Common Stock.

(23) Represents 16,667 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 3,064 Interest Shares and 31,632 shares of Common Stock.

(24) Represents 41,667 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 7,660 Interest Shares and 94,895 shares of Common Stock.

(25) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants, 15,320 Interest Shares, 42,684 shares of Common Stock issuable upon exercise Other Warrants and 158,158 shares of Common Stock.

(26) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 15,575 Interest Shares.

(27) Represents 35,294 shares of Common Stock issuable upon exercise of the April 2005 Warrants.

(28) Represents 41,667 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 7,790 Interest Shares.

(29) Represents 41,667 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 7,790 Interest Shares.

(30) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 15,744 Interest Shares.

(31) Represents 83,333 shares of Common Stock issuable upon exercise of the April 2005 Warrants and 15,689 Interest Shares.

(32) Represents shares of Common Stock issuable upon exercise of the July 2006 Warrants.

(33) Represents shares of Common Stock issuable upon exercise of Other Warrants and 173,974 shares of Common Stock. and 70,601 shares of Common Stock issuable upon exercise of Other Warrants.

(34) Represents shares of Common Stock issuable upon exercise of Other Warrants.

(35) Represents (i) 25,000 of Common Stock issuable upon exercise of Other Warrants and (ii) 110,000 shares upon exercise of warrants issued in connection with line of credit facilities.

(36) Represents shares of Common Stock.

## PLAN OF DISTRIBUTION

The selling stockholders and any of their pledgees, donees, transferees, assignees and successors-in-interest may, from time to time, sell any or all of the shares that are included in the Registration Statement on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices.

The selling stockholders may use any one or more of the following methods when selling shares:

· directly as principals;

· ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

· block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

· purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

· an exchange distribution in accordance with the rules of the applicable exchange;

· privately negotiated transactions;

· to cover short sales made in compliance with applicable laws and regulations;

· broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

· a combination of any such methods of sale; and

· any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Act if available, rather than under this Prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as an agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved. We are not aware of any definitive selling arrangement at the date of this prospectus between any selling stockholder and any broker-dealer or agent.

Upon our being notified by a selling stockholder that any material arrangement has been entered into with a broker-dealer for the sale of shares through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, a supplement to this prospectus will be filed by us, if required, pursuant to Rule 424(b) under the Act, disclosing:

· The name of each such selling stockholder and of the participating broker-dealer(s);

· The number of shares involved;

· The price at which such shares were sold;

· The commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable;

· That such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this Prospectus; and

· Other facts material to the transaction.

The selling stockholders may from time to time pledge or grant a security interest in some or all of the shares owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell shares from time to time under this Prospectus, or under an amendment to this Prospectus under Rule 424(b)(3) or other applicable provision of the Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this Prospectus.

The selling stockholders may also transfer the shares in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this Prospectus.

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be "underwriters" within the meaning of the Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Act. Discounts, concessions, commissions and similar selling expenses, if any, that can be attributed to the sale of securities will be paid by the applicable selling stockholder and/or the purchasers.

If a selling stockholder uses this Prospectus for any sale of the shares, it will be subject to the prospectus delivery requirements of the Act. The selling stockholders will be responsible to comply with the applicable provisions of the Act and the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder, including, without limitation, Regulation M, as applicable to such selling stockholders in connection with resales of their respective shares under this Registration Statement.

We are required to pay all fees and expenses incident to the registration of the shares being offered by the selling stockholders, but we will not receive any proceeds from the sale of the shares except for, upon exercise, the exercise price of options and warrants exercised on a cash basis. We have agreed to indemnify certain selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Act.

## DESCRIPTION OF CAPITAL STOCK

We are authorized to issue up to 50,000,000 shares of Common Stock. of which 19,335,525 were outstanding as of May 9, 2007. Holders of the Common Stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Holders of Common Stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors out of funds legally available therefore. Upon the liquidation, dissolution, or winding up of our company, the holders of Common Stock are entitled to share ratably in all of our assets which are legally available for distribution after payment of all debts and other liabilities and liquidation preference of any outstanding common stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. The holders of shares of the Common Stock do not have cumulative voting rights for the election of directors and, accordingly, the holders of more than 50% of the shares of Common Stock are able to elect all directors.

### Preferred Stock

We are authorized to issue up to 2,000,000 shares of preferred stock, par value $.001 per share. Currently, no preferred stock is issued and outstanding.

The shares of preferred stock are issuable in series, and in connection with the issuance of any series of preferred stock and to the extent now or hereafter permitted by law, the board of directors is authorized to fix by resolution the designation of each series, the stated value of the shares of each series, the dividend rate or rates of each series and the date or dates and other provisions respecting the payment of dividends, the provisions, if any, respecting the redemption of the shares of each series and, subject to requirements of law, the voting rights, the terms, if any, upon which the shares of each series shall be convertible into or exchangeable for any other shares of stock of the Company and any other relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof, of the shares of each series.

## DISCLOSURE OF SEC POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Pursuant to our certificate of incorporation and by-laws, our officers and directors are indemnified by us to the fullest extent allowed under Delaware law for claims brought against them in their capacities as officers and directors. Indemnification is not allowed if the officer or director does not act in good faith and in a manner reasonably believed to be in our best interest, or if the officer or director had no reasonable cause to believe his conduct was lawful. Accordingly, indemnification may occur for liabilities arising under the Act. Insofar as indemnification for liabilities arising under the Act may be permitted for our directors, officers and controlling persons pursuant to the foregoing provisions or otherwise, we have been advised that in the opinion of the SEC, such indemnification is against public policy as expressed in the and is, therefore, unenforceable.

## LEGAL MATTERS

The validity of the Common Stock offered under this Prospectus will be passed on by Aboudi & Brounstein, Law Offices.

## AUDITOR CHANGE

Our auditor prior to the Acquisition Transaction was Marcum & Kliegman LLP ("MKLLP"). The auditor of SPO Ltd., the acquired company, prior to the Acquisition Transaction and thereafter, is Brightman Almagor & Co., certified public accountants (Israel) and a member of Deloitte Touche Tohmatsu ("Brightman"). Following the Acquisition Transaction, effective November 18, 2005, the audit committee and our board of directors dismissed MKLLP as our independent accountant and engaged the services of Brightman as new independent accountants.

The reports of MKLLP did not contain an adverse opinion or disclaimer of opinion but were qualified as to going concern limitations. During our two most recent fiscal years and subsequent interim periods there were no disagreements with MKLLP on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of MKLLP, would have caused MKLLP to make reference to the subject matter of the disagreements in their report on the financial statements for such years.

## EXPERTS

The financial statements for the years ended December 31, 2006 and December 31, 2005 included in this Prospectus have been so included in reliance on the report of Brightman Almagor & Co., Certified Public Accountants, member firm of Deloitte Touche Tohmatsu, given on the authority of said firm as experts in auditing and accounting.

## WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any reports, statements or other information on file at the SEC public reference room in Washington, D.C. You can request copies of those documents, upon payment of a duplicating fee, by writing to the SEC.

We have filed with the SEC under the Act a Registration Statement on Form SB-2, of which this Prospectus is a part, with respect to the shares offered hereby. This Prospectus, which constitutes a part of the Registration Statement, does not contain all of the information set forth in the Registration Statement, certain items of which are contained in exhibits and schedules as permitted by the rules and regulations of the SEC. You can obtain a copy of the Registration Statement from the SEC at the address listed above or from the SEC's Internet website at www.sec.gov.

Statements made in this Prospectus as to the contents of any contract, agreement or other document referred to herein are not necessarily complete. With respect to each contract, agreement or other document filed as an exhibit to the Registration Statement or in a filing incorporated by reference herein or otherwise, reference is made to the exhibit for a more complete description of the matters involved, and each statement shall be deemed qualified in its entirety by this reference.

We are subject to the informational requirements of the Exchange Act and file periodic reports, proxy statements and other information with the SEC. Reports and other information filed by us may be inspected and copied at the public reference facilities maintained by the SEC at:

100 F Street, N.E.

Room 1580
Washington, D.C. 20549

Copies of such material may be obtained by mail from the Public Reference Room of the SEC at 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates. In addition, the SEC maintains a Web site at www.sec.gov containing reports, proxy and information statements and other information regarding registrants that file electronically with the SEC, including us. The SEC's telephone number is 1-800-SEC-0330.

Prospective investors may rely on the information contained in this Prospectus. Neither we nor the selling stockholders have authorized anyone to provide prospective investors with information different from that contained in this Prospectus. The information in this Prospectus is correct only as of the date of this Prospectus, regardless of the time delivery of this Prospectus or any sale of these securities.

29

**SPO MEDICAL INC.**

up to 4,586,109 shares of Common Stock

**PROSPECTUS**

May 10, 2007

---

**SPO MEDICAL INC. AND ITS SUBSIDIARY**

**CONSOLIDATED FINANCIAL STATEMENTS**

**AS OF DECEMBER 31, 2006**

**U.S. DOLLARS IN THOUSANDS**

**INDEX**