SUBJECT TO COMPLETION
PRELIMINARY PROSPECTUS, DATED JULY 1, 1994

1,000,000 Units

FLUOROSCAN
IMAGING SYSTEMS, INC.

Each Unit consisting of
One Share of Common Stock and
One Redeemable Common Stock Warrant

Each Unit ("Unit") consists of one share of Common Stock, par value $.0001 per share (the "Common Stock"), and one Redeemable Common Stock Warrant (the "Warrant"). The Common Stock and Warrants comprising the Units are immediately detachable and separately transferable. Each Warrant entitles the holder to purchase one share of Common Stock at an exercise price of $7.00 for a period of four years commencing on the first anniversary of the date hereof. The Warrants are redeemable by the Company, commencing on the second anniversary of the date hereof, for $.01 per Warrant, upon 30 days' prior written notice, if the closing bid price of the Common Stock equals or exceeds $9.00 per share for 10 consecutive trading days. See "Description of Securities." Of the shares of Common Stock included in the Units, 565,216 shares are being sold by FluoroScan Imaging Systems, Inc. (the "Company") and 434,784 shares are being sold by certain stockholders of the Company. See "Principal and Selling Stockholders." The Company will not receive any of the proceeds from the sale of shares of Common Stock by the Selling Stockholders.

Prior to this offering, there has been no public market for the Units, the Common Stock or the Warrants and there can be no assurance that any such market will develop. For information regarding the factors considered in determining the initial public offering price of the Units and the exercise price of the Warrants, see "Underwriting."

The Common Stock and the Warrants have been approved for quotation on the Nasdaq National Market under the symbols FLRO and FLROW, respectively, and the Units have been approved for quotation on the Nasdaq SmallCap Market under the symbol FLROU.

The securities offered hereby involve a high degree of risk and substantial immediate dilution. See "Risk Factors" and "Dilution."

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

		Price to Public	Underwriting Discounts and Commissions(1)	Proceeds to Issuer(2)	Proceeds to Selling Stockholders(3)6
Per Unit (4)	Common Stock	$6.90	$.69	$6.21	$6.21
	Warrants	$.10	$.01	$.09	—
Total (5)		$7,000,000	$700,000	$3,599,991	$2,700,009

(1) In addition, the Company has agreed to pay M.H. Meyerson & Co., Inc. (the "Underwriter") a nonaccountable expense allowance equal to 3% of the gross proceeds of this offering, to sell to the Underwriter, for nominal consideration, an option to purchase 100,000 Units at $10.50 per Unit (the "Underwriter's Option"), and to indemnify the Underwriter against certain liabilities under the Securities Act of 1933, as amended. See "Underwriting."

(2) Before deducting expenses payable by the Company estimated at approximately $425,000. This estimate includes the portion of the nonaccountable expense allowance to be paid by the Company in the amount of $120,000, of which $25,000 has already been paid.

(3) Before deducting the portion of the nonaccountable expense allowance to be paid by the Selling Stockholders in the amount of $90,000.

(4) The 1,000,000 Units offered hereby are comprised of 1,000,000 Warrants and 565,216 shares of Common Stock offered by the Company and 434,784 shares of Common Stock offered by the Selling Stockholders. Gross proceeds from the sale of shares of Common Stock offered by the Selling Stockholders of approximately $3,000,000 will be paid directly to such Selling Stockholders. The Company will receive the remaining gross proceeds of approximately $4,000,000. See "Principal and Selling Stockholders" and "Certain Transactions."

(5) The Company has granted the Underwriter an option, exercisable within 45 business days from the effective date of this offering, to purchase up to 150,000 additional Units upon the same terms and conditions as the Units offered hereby, solely for the purpose of covering over-allotments, if any. If such option is exercised in full, the total "Price to Public," "Underwriting Discounts and Commissions" and "Proceeds to Issuer" will be $8,050,000, $805,000 and $4,544,991, respectively, and the estimated expenses payable by the Company will be $456,500. See "Underwriting."

The securities comprising the Units are offered, subject to prior sale, when, as and if delivered to and accepted by the Underwriter and subject to the approval of certain legal matters by counsel and certain other conditions. The Underwriter reserves the right to withdraw, cancel or modify this offering and reject any order in whole or in part. It is expected that delivery of certificates representing the securities comprising the Units will be made against payment therefor at the offices of the Underwriter in Jersey City, New Jersey, on or about , 1994.

M.H. MEYERSON & CO., INC.

The date of this Prospectus is , 1994.

PROSPECTUS SUMMARY

The following summary is qualified in its entirety by reference to, and should be read in conjunction with, the more detailed information and financial statements (including the Notes thereto) appearing elsewhere in this Prospectus. Each prospective investor should read this Prospectus in its entirety. Except where otherwise indicated, the information contained in this Prospectus (i) assumes no exercise of the Underwriter's over-allotment option, (ii) does not give effect to the Common Stock issuable upon exercise of the Warrants or the Underwriter's Option, and (iii) reflects stock splits effected in February and April 1994 and a stock dividend effected in June 1994, which, in the aggregate, changed every share of Common Stock outstanding immediately prior to February 1994 into 1,581 shares of Common Stock.

The Company

The Company manufactures and distributes the FluoroScan™ Imaging System (the "FluoroScan"), a low intensity, real time x-ray imaging device which provides high resolution images at radiation levels and at a cost well below those of conventional x-ray and fluoroscopic equipment. The FluoroScan technology, which the Company licenses on an exclusive basis in the United States from the United States of America, as represented by the National Aeronautics and Space Administration ("NASA"), is based on a micro channel plate image intensifier commonly known as a "night vision" intensifier. This technology permits the FluoroScan to produce a small amount of radiation that is converted to visible light and amplified approximately 50,000 times. In this manner, the FluoroScan provides both still x-ray pictures and real time images similar to those produced by a video camera, permitting users to view, for example, the movement of bones in a flexing hand as well as the placement of bones in a still extremity or the circuitry inside a computer.

The Company currently sells its latest model of the FluoroScan ("FluoroScan I") and certain related products. Since 1985, the Company has manufactured and sold approximately 800 units of several generations of the FluoroScan I. The current model is offered for approximately $45,000 and is targeted to hospitals and surgery centers primarily for extremity imaging. The Company plans to introduce the FluoroScan II, a smaller version of the FluoroScan I, in the third quarter of 1994. The FluoroScan II has options that allow it to be portable, hand-held and battery-powered. This newer model will be offered for between $25,000 and $40,000, depending on the range of options chosen, and will be marketed primarily to orthopedic surgeons, podiatrists, sports medicine physicians and other medical and veterinary offices as well as for use by the military. The Company is now developing a third model of the FluoroScan which will permit imaging of larger areas such as adult hips and spines.

To date, the Company has sold the FluoroScan primarily to hospitals and surgery centers for use by orthopedic surgeons in the operating room and, to a lesser extent, for other medical uses. The Company has also sold the FluoroScan for industrial use; however, approximately 95% of the Company's sales are to health care customers. The FluoroScan is used in the health care field primarily for extremity imaging to assist with surgical procedures and to detect fractures and foreign objects and in various industries for quality control, inspection of parts and other imaging requirements. Imaging systems can also be used for a variety of other applications in the health care, veterinary, industrial, security and military fields, and management believes the FluoroScan offers certain advantages over more conventional imaging systems in these fields. Due to the exclusivity of the NASA licenses, management believes that the Company has only two direct competitors, one a sublicensee of the Company that manufactures a comparable system under a royalty arrangement with the Company, and the other a company manufacturing a similar product for the industrial marketplace. The Company also competes indirectly with manufacturers of conventional C-arm image intensifiers and other types of imaging systems.

The Company was incorporated in Delaware in 1984 under the name HealthMate, Inc. as the successor to Healthmate of Illinois, Inc. and Lixiscope of America, Inc., both of which were incorporated in Illinois, in 1982 and 1981, respectively. In July 1991, the Company changed its name to FluoroScan Imaging Systems, Inc. The Company's principal executive offices are located at 650-B Anthony Trail, Northbrook, Illinois 60062. Its telephone number is (708) 564-5400.

The Offering

Securities Offered (1)	1,000,000 Units, each consisting of one share of Common Stock and one Warrant to purchase one share of Common Stock. Each Warrant entitles the holder to purchase one share of Common Stock at an exercise price of $7.00 for a period of four years commencing on the first anniversary of the date hereof. The Common Stock and Warrants are immediately detachable and separately transferable. The Company may redeem the Warrants at a price of $.01 per Warrant at any time between the second and fifth anniversaries of the date hereof, upon 30 days' prior written notice, if the closing bid price of the Common Stock equals or exceeds $9.00 per share for 10 consecutive trading days.
Shares of Common Stock outstanding prior to the offering	2,660,823
Shares of Common Stock outstanding after the offering (2)	3,226,039
Use of Proceeds	The Company intends to use the net proceeds from this offering to (i) introduce new products and increase advertising and marketing of its existing products, (ii) design, research and develop new products, (iii) obtain approvals from foreign authorities to sell the Company's products in various international markets, (iv) purchase manufacturing and quality control equipment, and (v) provide funds for general corporate purposes.
Nasdaq National Market Symbols	Common Stock: FLRO Warrants: FLROW
Nasdaq SmallCap Market Symbol (3)	Units: FLROU
Risk Factors	The securities offered hereby involve a high degree of risk and substantial immediate dilution.

(1) The Company is selling 565,216 shares of the Common Stock included in the Units offered hereby and the Selling Stockholders are selling 434,784 shares of such Common Stock. The Company will not receive any proceeds from the sale of Common Stock by the Selling Stockholders.

(2) Does not include (i) 150,000 shares of Common Stock issuable upon exercise of the Underwriter's over-allotment option, (ii) 1,000,000 shares of Common Stock issuable upon exercise of the Warrants (1,150,000 shares if the over-allotment option is exercised in full), (iii) 100,000 shares of Common Stock issuable upon exercise of the Underwriter's Option, (iv) 100,000 shares of Common Stock issuable upon exercise of the Warrants underlying the Underwriter's Option, (v) 126,480 shares of Common Stock issuable to an employee of the Company pursuant to a warrant, or (vi) 500,000 shares of Common Stock reserved for issuance under the Company's stock incentive plan. See "Underwriting" and "Management—Employee Warrant" and "—Stock Incentive Plan."

(3) The Company may terminate the quotation of the Units on the Nasdaq SmallCap Market at any time without notice to the Company's security holders. However, such termination would not affect the continued quotation of the Common Stock or Warrants on the Nasdaq National Market.

RISK FACTORS

The securities comprising the Units offered hereby involve a high degree of risk. Each prospective investor should carefully consider the following risk factors inherent in the Company's business and this offering, together with the other information contained in this Prospectus, before making an investment decision.

Protection of Technology

The Company's principal competitive advantage is its licenses from NASA (subject only to a sublicense granted by the Company) to use and develop certain technology that is the subject of three patents held by NASA. The Company's licenses are exclusive in the United States. See "Business—Licenses and Other Proprietary Information." There can be no assurance, however, that such patents and licenses will continue to afford the Company commercially significant protection, that third parties will not attempt to design around such patents without infringing on them, that the Company and/or NASA would be successful in the prosecution of any infringement claims related to the patented technology, that NASA would join the Company's efforts related to any such claims or that NASA or the Company would not be required (or in the case of NASA, inclined) to settle any such litigation by granting a sublicense to a potential competitor. Moreover, a significant portion of the Company's products and manufacturing processes utilize proprietary know-how that has not yet been, or cannot be, patented and may, therefore, be more susceptible to use by competitors or potential competitors.

Sublicense of Part of the NASA Technology

A prior prosecution of a third party's infringement of the NASA patents by the U.S. Department of Justice and the Company resulted in a settlement in which the Company agreed to sublicense part of the NASA technology to a competitor. This sublicense expires in 1996, along with the NASA patent that is the subject of such sublicense. While such competitor must pay the Company a royalty on sales of products incorporating the patented technology, the sublicense does make the patented technology available outside of the Company. Although the Company does not believe that this competitor presently has capital, marketing or other resources superior to those available to the Company, increased access to such resources by this competitor, or the acquisition of such competitor by an entity with such superior resources, could have a material adverse effect on the Company's business.

Circumvention of Exclusivity

Under the Company's license agreements with NASA, NASA retains the right to use its technologies in connection with devices that it produces, including devices that may be produced and marketed by NASA in direct competition with the FluoroScan. NASA also has the right to circumvent the exclusivity of the license agreements if, in NASA's opinion, such circumvention is required to serve the public good and the national interest of the United States, and the Company cannot serve such functions. Moreover, the Company's license agreements with NASA are exclusive only in the United States and its territories. Accordingly, NASA retains the right to license its technologies to others outside of the United States, where such technologies are patented or can be patented. The technology covered by the NASA patents is not patented in many foreign countries and may therefore not be protectable or may be cumbersome and expensive to enforce in such countries. Therefore, a competitor in one of these countries could reverse engineer the Company's products and manufacture and sell products in direct competition with the Company outside the United States.

Expiration of NASA Patents

One of the NASA patents expires in 1996, making the technology covered thereby accessible to potential competitors. While the Company believes that the technology covered by the other two NASA patents (which do not expire until 2002) is necessary to develop products comparable to the Company's products, the availability of the technology covered by the patent that expires in 1996 could adversely affect the Company's ability to compete. In 2002, all of the technology covered by the NASA patents will be accessible to potential competitors.

Potential Infringement of Third Party Rights

The Company's operations are dependent, in part, on its ability to avoid infringing on the proprietary rights of others. The Company has not been notified by any third party that the Company's products or procedures infringe any valid, enforceable claim of any patent or other technology owned by others. If any of the Company's current or future products, however, are finally determined to infringe on the proprietary rights of others, the Company's business could be materially adversely affected. In addition, the Company has been unsuccessful in its efforts to register the mark "FluoroScan" with the United States Patent and Trademark Office because a prior registration of the mark already exists. The prior registrant had marketed an unrelated medical equipment product that measured skin surface fluorescence. The Company believes the prior registrant is no longer in

business. Based upon the Company's continuous use of the mark on its products since 1985 and in its corporate name since 1991, in each case without objection from the prior registrant or any reported instances of actual confusion with the owner of the prior registration, management believes that the prior registration is not a threat to the Company's future use. The prior registration could, however, limit the Company's ability to prosecute third party uses of the mark.

Competition; Technological Change and Obsolescence

The Company has two direct competitors. Pursuant to a sublicense from the Company, Xi Tec, Inc. ("Xi Tec") manufactures products that utilize only one of the three patents used in the Company's products and emit higher levels of radiation. Lixi, Inc. ("Lixi") manufactures x-ray tube version lixiscopes only for the industrial marketplace. See "Business—Licenses and Other Proprietary Information." In addition, the Company competes indirectly with manufacturers of conventional C-arm image intensifiers, including Philips N.V., Siemens A.G., General Electric Company, OEC/Diasonics Inc., Fischer Imaging Corporation and Picker International, Inc. These competitors have substantially greater financial and marketing resources than the Company. See "Business—Competition."

In addition, while the Company believes that the technology incorporated into the FluoroScan products will be the method of choice in its target markets for the foreseeable future because of such technology's clear advantages over more conventional x-ray technologies, many companies, research institutions and universities may be working in a number of engineering and radiology disciplines similar to those being used and developed by the Company. As a result, the Company's products may become subject to competition from products using technologies other than those developed by the Company, which may render the Company's products obsolete or less attractive to customers if the Company cannot participate in such new technologies. The Company will have to incur significant research and development expenditures to keep its technology and products innovative and current.

Product Development; Uncertainty of Market Acceptance

A significant portion of the proceeds from this offering will be used to introduce and market the Company's new generation products such as the FluoroScan II, develop and commercialize future generation products (including the FluoroScan III now in development), increase the Company's sales of its existing products and explore new applications for the FluoroScan products and technology, in each case domestically and abroad. It is not possible to predict the likely demand and acceptance for newly introduced products in the Company's target markets. The Company has not yet commenced significant marketing activities relating to the FluoroScan II and currently has limited marketing resources. In addition, the Company has not conducted and does not intend to conduct formal market or concept feasibility studies with respect to the FluoroScan II or the FluoroScan III. Achieving market acceptance for these systems may require substantial expenditures. Development of the FluoroScan III will also be subject to all of the risks associated with new product development generally, including unanticipated delays, expenses, technical problems or other difficulties that could result in abandonment or substantial change in the commercialization of this product. Given the uncertainties inherent in new product development and introduction, domestically and abroad, and the other risks associated with foreign operations such as governmental regulation, currency fluctuations, trade embargoes, tariffs and political and economic instability, there is no assurance that the Company will be successful in implementing its product development, commercialization or marketing strategies.

Limited Supply Sources

The Company purchases most of the components used in manufacturing its products from a limited number of suppliers and subcontractors as needed to complete and deliver such products. Although the Company believes that there are alternative sources of supply, an interruption or delay in supply from the Company's vendors and subcontractors could result in manufacturing delays for the Company's products.

Product Liability

The Company may be subject to product liability claims arising out of the use of the Company's products in the health care or other fields. In recognition of this risk, the Company has obtained product liability insurance to cover a total of $1 million per occurrence with an aggregate limitation of $1 million per year. There can be no assurance that product liability claims will not exceed the amount of such insurance coverage or that such coverage will continue to be available to the Company on a cost-effective basis. An underinsured or uninsured claim could have a material adverse effect on the Company's financial condition.

Effect of Trends in Health Care Field

Due to the growing national concern with health care costs and the commitment of the Clinton administration to implement national health care reform, health care providers operate in an uncertain climate with respect to the amount of, and procedures eligible for, reimbursement by government and third party providers. As health care providers anticipate changes in their cost reimbursement structure, they may halt or delay the purchase of new equipment, including the FluoroScan. Equipment leasing, as opposed to purchase, may also become more prominent. In addition, to the extent health care reform leads to consolidation of individual providers into larger networks, the Company may have fewer potential customers in the health care field. Management believes that the Company in the past may have experienced a temporary downturn in sales due to proposed health care reform. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Government Regulation

The Company is required to obtain certain variances, acceptances to market and clearances from the Federal Food and Drug Administration, as well as certain state regulatory agencies, to sell the FluoroScan products in health care markets in the United States. Comparable agencies in many foreign countries impose similar requirements on sales in those countries. To comply with these regulatory requirements, the Company is also subject to certain ongoing reporting and other obligations. Although the Company has all required variances, acceptances to market and clearances with respect to its existing products, there is no assurance that the Company will be able to obtain required variances, acceptances to market and clearances for future generation products or that the requirements for existing products will not become more stringent. In addition, changes in these requirements could increase compliance costs substantially. There is no assurance that the Company will be able to comply with all applicable government requirements and regulations. Loss of, delays in obtaining or inability to obtain necessary governmental variances, acceptances to market and clearances could severely restrict the Company's access to the health care markets, which could, in turn, have a material adverse effect on the Company's operations.

The Company may also be subject to state disclosure and other laws that could be interpreted to govern the relationship between the Company and its independent sales representatives. Certain of these laws may restrict the Company's ability to terminate its relationships with its sales representatives without advance notice and, in some cases, without cause. See "Business—Government Regulation."

Foreign Sales Limitations

Because the Company's technology has potential military applications, its use has been restricted by the United States Government under the International Traffic in Arms Regulations of the Department of State. In particular, the Government permits the export of the FluoroScan only to "friendly" countries, and prohibits its export to certain other countries. The Company recently received notification that in the future the Department of Commerce, which management believes has less restrictive export requirements, will govern the Company in this regard. Foreign sales are subject to numerous other risks, including economic or political instability, fluctuations in foreign currency rates and artificial ceilings placed on the demand for the Company's products in foreign markets by the implementation of quota requirements prohibiting or limiting the quantity of foreign-made imports. These restrictions, regulations and risks could impair the Company's ability to expand internationally, as planned.

Control by Management and Principal Stockholders

The Company's officers will in the aggregate beneficially own 63.6% of the issued and outstanding shares of the Common Stock and related voting power following the offering (48.5% if 1,000,000 of the Warrants are exercised). As a result, these stockholders, acting together, are likely to be able to control most matters requiring approval by the stockholders, including the election of directors. Messrs. Larry Grossman, the Company's Chairman of the Board and Chief Executive Officer, and Arlen Issette, the Company's President, have entered into a voting agreement pursuant to which they have agreed to vote their shares together. In addition, Mr. John Tauber, the Company's Vice President of Manufacturing, has granted a proxy to vote his shares to Messrs. Grossman and Issette, and Mr. Kevin Hughes, the Company's National Sales Manager, has agreed to grant such a proxy with respect to the shares he is entitled to receive in 1995 pursuant to a warrant. See "Management." Furthermore, certain provisions of the Company's Amended and Restated Certificate of Incorporation, its Bylaws, its Stock Incentive Plan and its employment agreements with Messrs. Grossman and Issette could have the effect of delaying, deferring or preventing a change in control of the Company. See "Principal and Selling Stockholders," "Description of Capital Stock—Delaware Law and Certain Charter Provisions" and "Management—Stock Incentive Plan."

Dependence on Key Personnel

The future success of the Company is dependent to a significant degree on the experience and efforts of Larry S. Grossman and Arlen L. Issette, the Company's Chairman and President, respectively. Loss of the services of one or both of these officers could have a material adverse effect on the Company's business. Each of Messrs. Grossman and Issette has entered into an employment agreement that provides for his employment with the Company through February 1999. The agreements also contain certain noncompetition, confidentiality, severance and change in control provisions. See "Management—Executive Compensation." Although the Company maintains $1 million of key-man life insurance with respect to each of Messrs. Grossman and Issette, there is no assurance that the benefits payable under these policies would be sufficient to replace the loss of Mr. Grossman's or Mr. Issette's services to the Company. The Company's continued growth also depends on its ability to attract and retain skilled technical, marketing and sales personnel, and there can be no assurance that the Company will be successful in continuing to do so. See "Management."

Prior Bankruptcy; Limited Historical Profitability; No Assurance as to Future Profitability

The Company was organized in July 1982 under the name HealthMate, Inc. In 1989, HealthMate, Inc. filed for relief under Chapter 11 of the United States Bankruptcy Code. The plan of reorganization was confirmed in 1991, at which time HealthMate, Inc. changed its name to FluoroScan Imaging Systems, Inc. See "Business—Background." Under its plan of reorganization, the Company was obligated to pay the claims of certain of its unsecured creditors (approximately $800,000) by making annual payments in an aggregate amount of up to 50% of its prior year's net operating profits. The Company made its final payment of this obligation in April 1994. The Company emerged from bankruptcy with a $5,600,508 deficit. Although the Company has had earnings for each of the fiscal years since such emergence, the deficit as of March 31, 1994 was $3,041,436.

In the fiscal years ended December 31, 1993 and 1992, the Company had revenues of approximately $6,930,000 and $5,980,000, respectively, and net income of approximately $1,460,000 and $420,000, respectively. The Company historically has had, and following this offering will continue to have, a high level of operating expenses, and the Company anticipates that it will make substantially increased commitments of capital to the research, development and marketing of its products. In light of the Company's anticipated increase in these expenses and the inability to predict the returns, if any, resulting from such expenditures, there can be no assurance that the Company's current rate of revenue growth will continue or that the Company's future operations will be profitable. See "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Financial Statements and Notes thereto.

No Prior Public Market; Arbitrary Determination of Offering Price

There has been no public market for the Units, the Common Stock or the Warrants prior to this offering. In the absence of an active public trading market, an investor may be unable to liquidate its, his or her investment. In addition, the initial public offering price of the Units, and the exercise price and other terms of the Warrants, were determined through negotiations between the Company and the Underwriter and are not necessarily related to the Company's book value, results of operations or other established indicia of value. There can be no assurance that an active trading market will develop and continue after completion of this offering or that the market price of the Units, the Common Stock or the Warrants will not decline below the initial public offering price. See "Underwriting." Furthermore, no assurance can be given that the market price of the Company's Common Stock will exceed the exercise price of the Warrants at any time during the exercise period. See "Description of Securities—Warrants."

Dilution

This offering involves an immediate and substantial dilution of $5.24 per share between the adjusted net tangible book value per share after the offering and the portion of the $7.00 per Unit offering price allocated to the shares of common stock ($6.90). See "Dilution."

Redemption of Warrants

The Warrants offered hereby are redeemable at a price of $.01 per Warrant, commencing two years after the date of this Prospectus and for a period of three years thereafter until their expiration, in the event that (i) not less than 30 days' prior written notice of such redemption is given to the holders of the Warrants and (ii) the closing bid price of the Common Stock on the Nasdaq National Market (or, if not then so listed, as otherwise provided in the Warrant Agreement) equals or exceeds $9.00 per share for 10 consecutive trading days ending on the third day prior to the date on which the notice of redemption is given. Holders of the Warrants may exercise their Warrants until the close of the business day immediately preceding the date fixed for redemption. Notice of

redemption of the Warrants could force holders to exercise the Warrants and pay the exercise price therefor at a time when it may be disadvantageous for them to do so, sell the Warrants at the current market price when they might otherwise wish to hold the Warrants or accept the redemption price which is likely to be substantially less than the market value of the Warrants at the time of redemption. See "Description of Securities—Warrants."

Current Prospectus and State Blue Sky Registration Required to Exercise Warrants

Holders of the Warrants will be able to sell the shares of Common Stock issuable upon exercise of the Warrants only if a current registration statement relating to such shares is then in effect and only if the shares are qualified for sale under the securities laws of the applicable state or states. The Company has undertaken and intends to file and keep current a registration statement covering the shares of Common Stock issuable upon exercise of the Warrants, but there can be no assurance that the Company will be able to do so. Although the Company intends to seek to qualify such shares of Common Stock for sale in those states where the Units are to be offered, there is no assurance that such qualification will occur. The Warrants may be deprived of any value if a current registration statement covering the shares underlying the Warrants is not effective and available or if such underlying shares are not or cannot be registered in the applicable states. See "Description of Securities—Warrants."

Shares Eligible for Future Sale; Outstanding Options

All of the shares of Common Stock outstanding as of the date of this Prospectus are "restricted securities," as that term is defined under Rule 144 promulgated under the Securities Act of 1933, as amended (the "Securities Act"). Of the 2,660,823 shares outstanding prior to this offering, 434,784 shares are being sold by the Selling Stockholders in the offering, and the remaining 2,226,039 shares will be available for resale in the public market under Rule 144 commencing 90 days after the date of this Prospectus. Stockholders who, immediately following the offering, will own an aggregate of 2,050,548 shares of Common Stock (including all officers of the Company) have agreed not to sell or otherwise dispose of any of their shares of Common Stock for a period of 24 months from the date of this Prospectus, without the prior written consent of the Underwriter. Notwithstanding the foregoing, each of Larry Grossman, Chairman and Chief Executive Officer of the Company, and Arlen Issette, President of the Company, may, at any time after three months from the effective date of this Prospectus, sell publicly under Rule 144 such number of shares of Common Stock held by them as will generate no more than $1.5 million of gross sales proceeds. No prediction can be made as to the effect, if any, that sales of shares of Common Stock or the availability of such shares for sale will have on the market price of the Units, the Common Stock or the Warrants from time to time. Nevertheless, the possibility that substantial amounts of Common Stock may be sold in the public market may adversely affect prevailing market prices for the Units, the Common Stock and the Warrants, and could impair the Company's ability to raise capital through the future sale of its equity securities. See "Description of Securities—Shares Eligible for Future Sale."

In addition, after the one-year period following the date hereof, all of the Warrants and the Underwriter's Option become exercisable. The exercise of the Warrants and the Underwriter's Option (and the Warrants included as part thereof) will dilute the percentage ownership of the Company's stockholders, and any sales in the public market of shares underlying the Underwriter's Option and Warrants may adversely affect prevailing market prices. Moreover, the terms upon which the Company will be able to obtain additional equity capital may be adversely affected since the holders of the Underwriter's Option and Warrants can be expected to exercise them at a time when the Company would, in all likelihood, be able to obtain any needed capital on terms more favorable to the Company than those provided in the Underwriter's Option and Warrants.

Issuance of Preferred Stock

The Board of Directors of the Company is authorized to issue Preferred Stock in one or more series, and to determine the preferences, conversion or other rights, voting powers, restrictions, limitations as to dividends, qualifications, and terms or conditions of redemption of each series without any vote or action of the stockholders of the Company. The issuance of Preferred Stock in certain circumstances may have the effect of delaying or preventing a change in control of the Company. The issuance of Preferred Stock with voting and conversion rights may adversely affect the voting power of the holders of Common Stock. The Company has no present plans to issue any shares of Preferred Stock.

BUSINESS

General

The Company manufactures and distributes the FluoroScan Imaging System™ (the "FluoroScan"), a low intensity, real time x-ray imaging device which provides high resolution images at radiation levels and at a cost well below those of conventional x-ray and fluoroscopic equipment. The FluoroScan technology, which the Company licenses on an exclusive basis in the United States from the United States of America as represented by the National Aeronautics and Space Administration ("NASA"), is based on a micro channel plate image intensifier commonly known as a "night vision" intensifier. This technology permits the FluoroScan to produce a small amount of radiation that is converted to visible light and amplified approximately 50,000 times. In this manner, the FluoroScan provides both still x-ray pictures and real time images similar to those produced by a video camera, permitting users to view, for example, the movement of bones in a flexing hand as well as the placement of bones in a still extremity or the circuitry inside a computer.

The Company currently sells its latest model of the FluoroScan ("FluoroScan I") and certain related products. Since 1985, the Company has manufactured and sold approximately 800 units of several generations of the FluoroScan I. The current model is offered for approximately $45,000 and is targeted to hospitals and surgery centers primarily for extremity imaging. The Company plans to introduce the FluoroScan II, a smaller version of the FluoroScan I, in the third quarter of 1994. The FluoroScan II has options that allow it to be portable, hand-held and battery-powered. This newer model will be offered for between $25,000 and $40,000, depending on the range of options chosen, and will be marketed primarily to orthopedic surgeons, podiatrists, sports medicine physicians and other medical and veterinary offices as well as for use by the military. The Company is now developing a third model of the FluoroScan which will permit imaging of larger areas such as adult hips and spines.

To date, the Company has sold the FluoroScan primarily to hospitals and surgery centers for use by orthopedic surgeons in the operating room and, to a lesser extent, for other medical uses. The Company has also sold the FluoroScan for industrial use; however, approximately 95% of the Company's sales are to health care customers. The FluoroScan is used in the health care field primarily for extremity imaging to assist with various surgical procedures and to detect fractures and foreign objects, and in various industries for quality control, inspection of parts and other imaging requirements. Imaging systems can also be used for a variety of other applications in the health care, veterinary, industrial, security and military fields, and management believes the FluoroScan offers certain advantages over more conventional imaging systems in these fields.

Background

The Company was incorporated in Delaware in 1984 under the name HealthMate, Inc. ("HealthMate"), as the successor to HealthMate of Illinois, Inc. and Lixiscope of America, Inc., which were incorporated in Illinois in 1982 and 1981, respectively. In 1984 and 1985, HealthMate entered into two exclusive license agreements with NASA for certain patents and developed the underlying technology into the current FluoroScan Imaging System. See "Licenses and Other Proprietary Information," below.

HealthMate completed a $3.5 million initial public offering in 1985. Offering proceeds were used to market the FluoroScan I and for continued research and development of the exclusively licensed technology. Mr. Grossman, one of HealthMate's founders, left HealthMate in 1986 due to a disagreement with certain members of the Board of Directors as to the future direction of the Company and resigned as a director in 1987. Mr. Issette, who had joined HealthMate in 1984 as a director, also resigned in 1987. See "Management." HealthMate's business experienced a significant downturn following Mr. Grossman's departure. In March 1989, Messrs. Grossman and Issette returned to HealthMate and, together with John Tauber, caused the Company to file a Chapter 11 petition for protection under the United States Bankruptcy Code. Messrs. Grossman and Issette also reorganized HealthMate into a privately-held company, after making equity contributions of $100,000 each in connection with the reorganization plan. See "Management" and "Certain Transactions." The reorganization plan was confirmed in June 1991 and closed in September 1991; the Company made the final payment in respect of its remaining obligations to creditors in April 1994.

The FluoroScan Technology

The basis of the FluoroScan technology is a second generation micro channel plate image intensifie commonly referred to as a "night vision" intensifier. This technology permits the FluoroScan to take a sma amount of radiation, convert it to visible light and amplify it approximately 50,000 times, producing readil viewable visual images. The same night vision intensifier, as used by the military, allows clear views of battlefield at night by amplifying small amounts of ambient light.

The FluoroScan technology offers several advantages over existing real time x-ray imaging devices (als known as C-arms, image intensifiers or fluoroscopy equipment). These advantages include:

(1) *Substantial reduction of radiation to the patient and of scatter radiation to the surgeon and othe operating room personnel.* The Company estimates that the FluoroScan reduces radiation exposure b approximately 90%, based on testing conducted by independent health physicists. Because of this reductio FluoroScan has received waivers from the legal requirement imposed by many states that persons (includin patients) in a room with an x-ray operating device must wear lead aprons. The Company is not aware of an other x-ray device which has received such waivers.

(2) *The FluoroScan costs approximately one-third of the cost of a conventional C-arm, although th relevant health care codes for reimbursement are the same for FluoroScan and conventional fluoroscop equipment.* Thus, users in the health care field are able to recover the cost of purchasing the FluoroSca more quickly and with fewer procedures.

(3) *The FluoroScan is mobile, does not require lead-lined rooms and can often be operated without radiology technician.* Users of the FluoroScan I can move the unit easily from room to room, thereby savin space and money. The FluoroScan II will further increase mobility by offering options that allow it to b battery powered and completely portable.

(4) *The FluoroScan does not require the regular service and tube replacement required by conventiona C-arms.* The FluoroScan operates with microamp current instead of the milliamp current used by conver tional equipment, and its usual setting is 50 microamps rather than the typical three milliamps (3,00 microamps) for conventional equipment. For these reasons, the FluoroScan can be operated continuousl without overheating, while conventional equipment can require frequent and lengthy cool-off periods o internal cooling devices, and the FluoroScan's x-ray tube has a longer life with fewer service problems. I addition, the x-ray tube replacement cost for the FluoroScan is approximately $5,000, which is substantiall less than the cost to replace an x-ray tube in a conventional C-arm. See, however, "Risk Factors—Compet tion; Technological Change and Obsolescence."

Licenses and Other Proprietary Information

The Company has two license agreements with the U.S. government as represented by NASA that ar exclusive within the United States. The first agreement gives the Company exclusive rights to manufacture an distribute a nonradioactive isotope version of NASA's low intensity x-ray and gamma ray imaging device (paten no. 4,142,101). This technology provides the ability to amplify x-rays that have been converted to visible ligh The second agreement gives the Company exclusive rights to manufacture and distribute NASA's high voltag isolation transformer (patent no. 4,510,476) and high voltage power supply (patent no. 4,517,472). This techno ogy allows the Company's products to produce low levels of radiation. All three of these patents are incorporate into the FluoroScan technology. Pursuant to the licenses, the Company may be required to grant sublicenses t the extent that NASA believes such sublicenses are necessary for the health and safety needs of the United State and such needs cannot be fulfilled by the Company. The Company must pay NASA royalties equal to 4.5% of th portion of the selling price of each FluoroScan that incorporates all of the licensed technology attributable t NASA's patents. In the event the Company sells a FluoroScan utilizing the technology covered by only the lo intensity x-ray and gamma ray imaging device patent, the royalty payment is reduced to 3.5% of the patente portion of the selling price. Sales of products to the United States government carry no royalty obligation, but th selling price of such products must be reduced in an amount equal to the royalty that would otherwise have bee payable.

Under an exclusive, perpetual consulting agreement with QTR Corporation ("QTR"), whose principals ar the inventors of the technology underlying the NASA patents, QTR provides certain technical expertise an assistance to the Company. In return, the Company pays QTR $300 per FluoroScan sold that utilizes QTR developments. The Company incurred and paid royalties to QTR Corporation of $28,500 and $37,200 in 1992 an 1993, respectively, pursuant to such agreement.

The first NASA license expires on February 26, 1996, simultaneously with the expiration of NASA's patent on the low intensity x-ray and gamma ray imaging device. The second license expires with the expiration of the underlying patents in 2002. Although the expiration of the patent on the low intensity x-ray and gamma ray imaging device will make such technology available outside of the Company, management believes that the FluoroScan cannot be duplicated without the use of the technology covered by the second license and that the technology underlying all three patents is necessary to allow the product to emit the low levels of radiation that provide its competitive advantage. See, however, "Risk Factors—Protection of Technology."

Both NASA license agreements allow the Company to call to NASA's attention any incidents of infringement and to suspend royalty payments if NASA does not bring suit against the alleged infringer within six months. At such time as the infringement is determined to have ended, the license agreements require the Company to pay the royalties previously suspended, offset by the Company's legal and other expenses incurred in prosecuting such infringement claims minus any recoveries from infringement claims.

In 1992, the Company and the U.S. Department of Justice representing NASA brought suit against Dow Corning Wright and Xi Tec for alleged infringement of the NASA low intensity x-ray and gamma ray imaging device patent. In 1993, the parties agreed to settle the litigation. As part of the settlement, the defendants agreed to pay to the Company a lump sum of $250,000 plus two subsequent payments of $50,000 each. These payments were used by the Company to offset its litigation and other expenses and to pay NASA $50,000, representing NASA's share of such settlement. In addition, the Company granted Xi Tec a nonexclusive, nonassignable and nontransferable sublicense under the NASA license covering the x-ray and gamma ray imaging device patent. Under the sublicense, Xi Tec is obligated to pay royalties to the Company of $1,375 per covered device sold by Xi Tec during the first 12 months of the license, $1,675 per covered device for the next 300 devices Xi Tec sells, and $1,375 per covered device sold thereafter through February 26, 1996, when the sublicense, the Company's license and the underlying patent will all expire. From the royalties to be paid by Xi Tec to the Company, the Company is obligated to pay $250 per device to NASA. In 1993, Xi Tec incurred and paid royalties to the Company of approximately $97,625 for sales of licensed products reported by Xi Tec to the Company for 1993, and, of these royalties, the Company incurred and paid royalties of $17,750 to NASA.

As the result of the alleged infringement, the Company incurred legal and other expenses of approximately $243,000 during 1992 and 1993. From 1987 through 1991, the Company suspended royalty payments to NASA of $168,000. Suspended royalties in 1992 and 1993 totalled approximately $105,000 and $95,000, respectively.

The Company has also notified NASA that Lixi, Inc. may be infringing on the x-ray and gamma ray imaging device patent. Lixi sells x-ray tube version lixiscopes only in the industrial marketplace, to which the Company makes sales representing approximately 5% of total sales. On July 1, 1994, the Company and NASA entered into a settlement agreement relating to previously suspended royalties. Pursuant to the terms of the settlement agreement, the Company paid NASA approximately $79,500 in respect of all suspended royalties through March 28, 1994 and agreed to pay 50% of royalties incurred after March 28, 1994, with the remaining 50% payable either when the alleged Lixi infringement ceases, when NASA sues Lixi or when the license covering the x-ray and gamma ray imaging device patent expires in 1996. Pending the execution of such agreement, the Company had established a balance sheet liability of approximately $368,000 in respect of suspended royalties under the license agreements for the years 1987 to the present. See "Management's Discussion and Analysis of Financial Condition and Results of Operations" regarding the effect of the settlement on such liability.

In addition to the patented NASA technology, the Company considers certain FluoroScan processes, design developments and improvements to be proprietary trade secrets. The Company may apply for patents on certain design developments in the future.

The FluoroScan Models and Related Products

The Company has manufactured and sold several generations of the FluoroScan I since 1985. The current model of the FluoroScan I is offered for approximately $45,000 and is targeted to hospitals and surgery centers. This device is used primarily by orthopedic surgeons for extremity imaging in operating rooms, but may also be used for other medical and veterinary applications and, in the industrial arena, for quality control, parts inspection and other imaging requirements.

The FluoroScan I stands approximately four feet high, weighs about 240 pounds and can be plugged into any standard outlet. It rests on a portable, wheeled base cabinet, and all vital functions are computer controlled. The principal components of the FluoroScan I are a surgical stand, a control box, a flex arm, an articulation and a C-arm. The primary component is the miniature surgical C-arm that focuses a low intensity x-ray beam on an

image detector. The C-arm can be rotated 360 degrees in three planes and is fully balanced and counter-weighted. Each unit includes a high resolution viewing monitor that displays all technique factors in digital form. The basic field of view is three inches; the Company offers options that permit four and five inch fields of view. Images can be viewed on the monitor or, through the addition of options, output on regular radiographic film, printed on thermal paper or stored on video tape or computer diskette.

The FluoroScan II, which the Company plans to introduce in the third quarter of 1994, will differ from the FluoroScan I in that it has options which permit it to be portable, hand-held and battery-powered. The FluoroScan II, which provides the same basic field of view as the FluoroScan I, may also be attached to a surgical stand and plugged into a wall outlet. This newer model will be offered for between $25,000 and $40,000, depending on the range of options chosen. The FluoroScan II will be marketed to orthopedic surgeons for use in their offices and to other medical and veterinary offices, podiatrists and sports medicine physicians as well as for use by the military and various industries. The Company believes that the target audience for the FluoroScan II will be users seeking a lower cost or more mobile unit than the FluoroScan I.

The Company is now developing a third FluoroScan model, the FluoroScan III, which will permit imaging of larger areas, such as adult hips and spines. Management expects the FluoroScan III to sell for approximately $80,000 and to increase significantly the market for FluoroScan technology by increasing the number of possible applications, both within and outside the health care field. These applications are currently being served mainly with conventional, high-radiation imaging products. See "Research and Development," below, and "Risk Factors—Product Development; Uncertainty of Market Acceptance."

In addition to the FluoroScan models, the Company also sells custom designed sterile drapes for use with the FluoroScan in operating rooms. These drapes are required in the operating room to maintain a sterile field. Because the Company can order bulk quantities of the drapes, which must be custom fitted to the FluoroScan, the Company is able to resell drapes to its customers at a profit. The Company also sells thermal printer paper for use with the thermal video printer that is a standard FluoroScan feature. This printer permits users to produce a hard copy picture of the FluoroScan image. As with the sterile drapes, the Company can offer its customers convenience and quantity discounts on thermal paper purchases. Sales of sterile drapes and thermal paper have increased with increased FluoroScan sales, and the Company expects this trend to continue. Sales of these products currently account for approximately 5% of sales annually.

The Company provides a one-year warranty on parts and labor for all FluoroScan models and offers long-term service contracts to its customers. Approximately 1% of the Company's customers enter into such long-term service contracts. Warranty expenses for the Company equal approximately 2% of sales annually. Services not covered by warranties are charged separately and account for approximately 5% of the Company's sales annually.

Sales and Marketing

The Company markets and sells the FluoroScan and related products in the United States health care market through a national network of independent sales representatives and sales representative organizations. Products are marketed and sold to non-health care customers in the United States through one independent industrial sales representative. All of these sales representatives are paid, on a commission basis, after the customer has paid for the purchased FluoroScan unit. Sales representatives generally earn commissions equal to 20% of net sales. All medical sales representatives have been granted exclusive territories and are required to meet specified sales quotas. Approximately 50% of the Company's sales representatives devote their full business efforts exclusively to selling FluoroScan units.

Domestic marketing efforts are centered on trade show appearances and direct mailing of promotional videos. Company representatives attend approximately 30 trade shows every year and the Company currently mails approximately 100 videos per month. The Company also provides FluoroScan units to teaching laboratories at no cost to introduce the products to physicians at an early stage in their careers. The Company plans to use certain of the net proceeds of this offering to expand its print advertising efforts and to continue to place units where it believes future sales will result. See "Use of Proceeds."

Internationally, the Company markets, sells and services its products through independent distributors who purchase units from the Company for resale to their customers. Depending on the specifications required by the laws and regulations of a particular country, the price of a FluoroScan unit to these independent distributors ranges from approximately $33,000 to $39,000 U.S. dollars. In most cases, transactions are facilitated by irrevocable letters of credit in favor of the Company. There are currently six international distributors selling the

Company's products in Switzerland, Belgium, Austria, Sweden, Norway, Finland, Iceland, Germany, Great Britain, Italy, Australia, Hong Kong, Korea and Singapore. Although international sales have comprised less than 5% of the Company's annual sales to date, management expects such sales to grow as a percentage of total sales due to its recent receipt of certain variances and allowances to sell in foreign countries and its ongoing establishment of foreign distribution networks.

Approximately 800 FluoroScan units had been sold as of June 30, 1994. Customers include major university hospitals and clinics. No single customer accounted for more than 1% of the Company's total sales in any of the past three years.

The Company plans to use a large portion of the net proceeds of this offering to increase its sales and marketing efforts of the current FluoroScan model and, upon completion of development, the FluoroScan II and FluoroScan III. The Company anticipates that these efforts will include significant increases in trade show appearances, trade journal advertising, direct mail campaigns and production of new videotape and product brochures. See "Use of Proceeds."

Manufacturing and Supplies

The Company manufactures all FluoroScan models and related products at its manufacturing facility in Northbrook, Illinois. Current manufacturing capacity permits the production of batches of 50 units every six weeks. Generally, units for use in the health care field are manufactured without a prior order, while units for use in industrial applications are custom made to the customer's specifications.

The Company manufactures all of the FluoroScan's components from raw materials, with the exception of the x-ray tube, fiberoptic taper, night vision intensifier and video monitor and camera. Although all of the raw materials and most of the purchased components used in manufacturing the Company's products are readily available from numerous sources, several key components require high technology and are manufactured by a small number of suppliers. Principal suppliers include Schott Fibre Optics, Inc., Kevex Instrument Corporation, Mitsubishi Electronics of America, Inc. and Varo Inc. All of the components used by the Company are available from multiple sources, and management does not believe an interruption in supply from any of its current suppliers would result in significant manufacturing delays. See "Risk Factors—Limited Supply Sources."

Although the Company uses materials in its manufacturing process that may be subject to federal, state and/or local environmental laws, the costs and effects of compliance with these laws have not had a material effect on the Company's financial condition or results of operations during any of the past three years.

Competition

As the exclusive licensee for the FluoroScan technology in the United States, the Company's only direct competitors in the manufacture of the FluoroScan are Xi Tec, which manufactures a comparable system pursuant to a sublicense from the Company, and Lixi, a manufacturer of x-ray tube version lixiscopes only for the industrial marketplace. The Company believes that Lixi's products infringe on one of the patents licensed by the Company from NASA and has so notified NASA. See "Licenses and Other Proprietary Information," above, with respect to the Xi Tec sublicense, the royalties payable thereunder, the recently settled patent infringement lawsuit filed jointly by the Company and the United States Department of Justice, and the alleged infringement by Lixi.

Although it has no other direct competition, the Company competes indirectly with manufacturers of conventional C-arms, including Siemens A.G., General Electric Company, OEC/Diasonics Inc., Fischer Imaging Corporation, Philips N.V. and Picker International, Inc. These competitors have substantially greater financial and marketing resources than the Company. Competition is based on price, quality, service and production capabilities. The Company believes it has several competitive advantages due to the FluoroScan's significantly lower levels of radiation and its cost, mobility, quality and durability. The Company hopes to lessen the competitive disadvantage resulting from the FluoroScan's limited field of view with the planned development and introduction of the FluoroScan III. See "The FluoroScan Models and Related Products," above.

The Company is aware of a new type of image intensifier tube being made in small quantities in the Peoples Republic of China. U.S. agents of the Chinese company have formed CSL Electro Optics, headquartered in Ellicott City, Maryland, for purposes of obtaining U.S. patents and FDA market acceptance. The Company recently purchased one prototype tube from CSL Electro Optic for examination. Management believes this tube

is undesirable for use in the U.S. market due to high noise levels and insufficient amplification. There can be no assurance, however, that the products from CSL Electro Optic could not be improved to a level where they would pose a competitive threat to the Company's products.

Government Regulation

The Company is required to obtain certain clearances, acceptances to market and variances from the FDA to sell the FluoroScan in the United States health care market. The requisite clearances, acceptances to market and variances have been obtained for the FluoroScan I. Variances are granted for five-year periods and are renewable for an unlimited number of five-year periods. The renewal of the Company's variance for the FluoroScan I expires April 12, 1995. The Company plans to file for subsequent renewal of such variance and does not anticipate any difficulty in obtaining it. Management believes that the existing clearances, acceptances to market and variances for the FluoroScan I will also apply to the FluoroScan II and the FluoroScan III. Any new models could, however, require additional clearances, acceptances to market and variances. In addition to the FDA requirements, various states also impose regulations on x-ray and fluoroscopic equipment; management believes the Company has complied or received waivers from compliance with all such regulations for the FluoroScan I as such product is currently sold and used. The Company is also subject to various ongoing reporting and other compliance requirements.

Because the FluoroScan technology utilizes military technology, export of the unit is restricted by the United States Government. In particular, the government permits the export of the FluoroScan only to "friendly" countries and prohibits its export to certain other countries. The list of prohibited countries changes from time to time and currently includes China, Iran and Iraq, among others. With respect to permitted international operations, the Company is subject to various regulations relating to the sale of the FluoroScan. These regulations vary from country to country; in some cases, no clearance is required if the product has FDA acceptance to market or similar acceptance to market from another country. Certain clearances are required by, and have been obtained from, Germany, Sweden, Australia, Switzerland, Great Britain, Italy, Belgium, Austria, Hong Kong and Singapore.

The Company plans to use a portion of the net proceeds of this offering to fund its ongoing efforts to obtain government clearances, both domestically and abroad, for its current and newly developed FluoroScan Imaging Systems. See "Use of Proceeds." The Company does not anticipate any significant difficulties in obtaining all necessary clearances to market and sell any current or contemplated FluoroScan models from the applicable foreign, federal and state agencies, although there can be no assurances in this regard.

The Company may also be subject to certain state disclosure and other laws that could be interpreted to impose certain restrictions on the Company's relationships with its independent sales representatives, including restrictions on the Company's ability to terminate such representatives without advance notice and, in some cases, without cause. In 1994, the Company settled a lawsuit filed by a former sales representative who alleged, among other things, failure to comply with such state laws. Such settlement is not material to the Company's financial condition or results of operations.

Research and Development

Research and development activities to date have focused on mechanical and electrical engineering, as well as design and aesthetic, improvements to the FluoroScan. The Company has also sought to improve its production process and technology through its engineering efforts. In 1992 and 1993, the Company spent approximately $52,300 and $229,500, respectively, on research and development. Management expects to increase the amount spent on research and development activities in 1994 and subsequent years and to focus such activities on new product development, expansion of applications for current products and continued streamlining of manufacturing processes. See "Use of Proceeds" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Facilities

The Company's executive offices and manufacturing facilities have been located at 650-B Anthony Trail, Northbrook, Illinois, since 1988. These facilities, which consist of approximately 13,500 square feet of space, are leased by the Company pursuant to a lease which expires in February 1995. Rent expense is $6,740 per month through August 1994, then $7,008 per month from September 1994 through expiration of the lease. Under the terms of the lease, the Company is also obligated to pay its pro rata share of the annual real estate taxes and certain operating expenses in excess of specified amounts. These additional payments were approximately $4,800 and $5,200 in 1992 and 1993, respectively.

Of the leased space, approximately 10,000 square feet are used for manufacturing, production and storage purposes, and approximately 3,500 square feet are used for offices. Management believes these facilities to be adequate for the Company's current needs, as well as anticipated growth for the foreseeable future. Management also believes that, at the expiration of the lease, the Company will be able to renew its existing lease or lease alternative space suitable for its needs.

Employees

The Company currently has 17 full-time employees and two contract workers; it occasionally uses the services of temporary workers as well. Management believes that the Company's employee relations are good.

Legal Proceedings and Product Liability

The Company is not presently involved in any legal proceedings which, if not settled in favor of the Company, would have a material adverse effect on its financial condition.

Although there has not been any such claim against the Company to date, the Company may be subject to product liability claims arising out of the use of the FluoroScan. In recognition of this risk, the Company has obtained product liability insurance providing coverage of a total of $1 million per occurrence with an aggregate limitation of $1 million per year. The Company believes this insurance to be commercially reasonable and adequate, although there can be no assurance that product liability claims will not exceed the amount of such insurance coverage or that such coverage will continue to be available to the Company on a cost-effective basis. See "Risk Factors—Product Liability."

MANAGEMENT

Directors, Executive Officers and Significant Employees

The following table sets forth certain information regarding the directors, persons designated to become directors upon completion of this offering, executive officers and significant employees of the Company.

Name	Age	Positions
Larry S. Grossman	44	Director; Chairman of the Board, Chief Executive Officer and Secretary
Arlen L. Issette (1)	51	Director, President and Treasurer
John Tauber	44	Vice President of Manufacturing
Larry Bier (1)(2)	43	Prospective Director
Bruce W. Johnson (1)(2)	43	Prospective Director
Theodore Sall, Ph.D	67	Prospective Director
Kevin Hughes	42	National Sales Manager

(1) Member of Audit Committee

(2) Member of Compensation Committee

Larry S. Grossman co-founded HealthMate of Illinois, Inc. in 1982 and its successor, HealthMate, Inc., in 1984. Mr. Grossman left as an officer of HealthMate, Inc. in 1986 after a disagreement with certain members of the Board of Directors as to HealthMate's future direction and resigned as a director in 1987. Mr. Grossman returned to HealthMate in March 1989 and, since that date, has served as a director, Chairman of the Board, Chief Executive Officer and Secretary. From 1986 until he returned to the Company, Mr. Grossman was Chief Operating Officer of Pain Prevention Labs, Inc., a manufacturer of an electronic dental anesthesia device. Mr. Grossman also co-founded Trans Leasing International, Inc., a lessor of medical, scientific and other equipment to various health care providers, in 1972 and previously served as its Chief Executive Officer. He has served as a director of Trans Leasing International, Inc. since August 1991. Mr. Grossman was an officer and a director of HealthMate at the time it filed for relief under Chapter 11 of the United States Bankruptcy Code. See "Business—Background" and "Certain Transactions."

Arlen L. Issette has been a director, President and Treasurer of the Company since March 1989. He previously served as a director of HealthMate from 1984 to 1987. From 1987 to March 1989, Mr. Issette was employed by Pain Prevention Labs, Inc., a manufacturer of an electronic dental anesthesia device. From 1981 to 1987, Mr. Issette was the sole owner and President of The Concept Factory, Inc., a marketing and consulting firm based in the Chicago area. Mr. Issette was an officer and director of HealthMate at the time it filed for relief under Chapter 11 of the United States Bankruptcy Code. See "Business—Background" and "Certain Transactions."

John Tauber joined the Company in 1986 in a manufacturing capacity and became Vice President of Manufacturing in 1989. Mr. Tauber served as a director of the Company from 1989 until his resignation from the Board of Directors in January 1994. Previously, Mr. Tauber was employed by Aida Engineering, a machine tool manufacturer in Elk Grove Village, Illinois, from 1984 to 1986, and with Perfection Machinery, a machine tool manufacturer in Chicago, Illinois, from 1981 to 1984. Mr. Tauber was an officer and a director of HealthMate at the time it filed for relief under Chapter 11 of the United States Bankruptcy Code. See "Business—Background" and "Certain Transactions."

Kevin Hughes joined the Company in June 1992 as National Sales Manager. He is not an officer or a director of the Company. From 1986 until he joined the Company in 1992, Mr. Hughes was the sole owner and President of Consolidated Leasing, Inc., an equipment lessor in the Chicago area. Prior to that, he was National Sales Manager and Vice President of Sales at Trans Leasing International, Inc.

The following persons have agreed to become members of the Board of Directors following completion of this offering:

Larry Bier has been Vice President of Advertising for the Radio Shack Division of Tandy Corp. since September 1992. From January 1989 to August 1992, he was Advertising Director of Circuit City Stores, a retail electronics chain in Walnut, California, and from 1984 to 1988 he was Manager of Advertising Production at Gold Circle Stores, a discount retail chain in Columbus, Ohio.

Bruce W. Johnson founded Strata Marketing, Inc., a computer software lessor in Chicago, Illinois, in 1983, and he currently serves as its President. Mr. Johnson was Division Manager for Arbitron Radio Ratings, Inc., a media information company, from 1979 to 1983.

Theodore Sall is a professor of life sciences at Ramapo College in Mahwah, New Jersey, where he has taught since 1972. Dr. Sall currently serves as a director of DUSA Pharmaceuticals Inc. in Denville, New Jersey, and International Vitamin Corporation in Union, New Jersey.

After completion of this offering, the Company's Board of Directors will consist of three classes of directors serving three-year terms, with one class standing for election at each annual meeting of stockholders. Dr. Sall will be elected to serve for a term expiring in 1995; Messrs. Bier and Johnson will be elected to serve for terms expiring in 1996; and Messrs. Grossman and Issette will be elected to serve for terms expiring in 1997. Dr. Sall will serve as the director appointed by the Underwriter pursuant to its right to designate one member of the Board of Directors. See "Underwriting."

All officers of the Company serve at the discretion of the Board of Directors. There are no family relationships among the Company's executive officers and directors.

No compensation has been paid to directors of the Company for their services as such. After completion of this offering, the Company will pay each of Messrs. Bier, Johnson and Sall a monthly retainer of $500 for their services as directors. Directors may also be entitled to receive stock options at the discretion of the Compensation Committee.

Executive Compensation

The following table sets forth the annual and other compensation paid to the Company's Chief Executive Officer and to all other individuals whose total compensation exceeded $100,000 during any of the Company's

last three fiscal years. No tables reflecting stock appreciation right (SAR) grants, exercises or values, or awards under long-term incentive plans are presented because the named executive officers have received no such compensation during any of the Company's last three fiscal years.

Name and principal position	Year	Annual compensation	
		Salary	Bonus (1)
Larry S. Grossman	1993	$153,596	$150,000
Chief Executive Officer	1992	120,750	188,572
	1991	52,000	42,500
Arlen L. Issette	1993	$153,596	$150,000
President	1992	120,750	120,376
	1991	52,000	42,500

(1) Bonuses were determined by the Board of Directors in its discretion.

Mr. Grossman and Mr. Issette have entered into employment agreements with the Company that extend through February 1999. Under the terms of these agreements, each is entitled to be paid a salary of $200,000 annually (with annual increases of not more than 5%), plus bonuses, if any, as determined by the Compensation Committee of the Board of Directors. Messrs. Grossman and Issette are to receive equal salaries and bonuses. The employment agreements also contain restrictive covenants barring competition with the Company during the term of the agreements and for two years after certain terminations of employment. In addition, each employee is entitled to terminate his employment, among other "good reasons," upon the sale, in a single transaction or a series of related transactions, of more than 40% of the voting shares or substantially all of the assets of the Company, other than the sale of Units in this offering or a sale approved by such employee, or upon the relocation of the Company. Upon any termination by the Company without cause or by the employee for good reason, the Company will remain obligated to pay the employee's annual base salary and the cost of certain benefits through February 1999.

The Company has purchased "split dollar" life insurance policies for each of Mr. Grossman and Mr. Issette. Annual premiums paid by the Company total approximately $56,400, and all premiums paid by the Company will be repaid from death benefits payable under the policies upon the insured's death, or otherwise within one year of the insured leaving the employ of the Company. Each officer has a $1 million term life policy with benefits payable to the other, a $1 million adjustable life policy with benefits payable to his spouse, a $1 million adjustable life policy with benefits payable to his children, and a $1 million term life policy with benefits payable to the Company.

Stock Incentive Plan

The Company adopted the 1994 Stock Incentive Plan (the "Incentive Plan"), effective February 15, 1994. The Incentive Plan was amended and restated effective June 15, 1994, and the following description reflects the amended terms. A total of 500,000 shares of Common Stock are reserved for issuance upon exercise of options and other awards to be granted under the Incentive Plan. Options and awards may be granted under the Incentive Plan until April 1, 2004 to officers and certain key employees of the Company; provided that options for no more than 100,000 shares may be granted in any year to any Participant. No options or awards been granted to date.

The Incentive Plan will be administered by the Compensation Committee of the Board of Directors (the "Committee"), so long as such Committee consists of at least two non-employee directors of the Company who are deemed "disinterested," as such term is used in Rule 16b-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") and as "outside directors" for purposes of Section 162(m) of the Internal Revenue Code.

Subject to certain limits, options to be granted under the Incentive Plan may be incentive stock options ("ISOs") meeting the requirements of Section 422 of the Internal Revenue Code or may be options other than ISOs (non-qualified options or "NQSOs"), provided that NQSOs may be granted for no more than a total of 250,000 shares. The exercise price of an ISO must be at least equal to the fair market value (as defined in the Incentive Plan) per share of the Common Stock on the date of the grant, and must be at least 110% of such value if the grantee is a substantial stockholder of the Company. The exercise price of NQSOs will be determined by the

Committee and may be greater or less than the fair market value per share of the Common Stock on the date of grant. The exercise price is required to be paid in full at the time of exercise in cash or its equivalent or, upon approval of the Committee, in shares of Common Stock. ISOs and NQSOs granted under the Incentive Plan will be exercisable for a term of not more than 10 years (not more than five years if the grantee is a substantial stockholder) as determined by the Committee, and will become exercisable at such time or times during the optionee's employment with the Company as may be determined by the Committee, subject to acceleration of vesting upon a "change in control" of the Company. Options that have become exercisable on or prior to the date of termination of the optionee's employment terminate at the earlier of: (i) the expiration date of the option; (ii) where such termination of employment occurs as a result of death or disability, one year after the date of termination of employment; or (iii) where such termination occurs other than as a result of death or disability, three months after the date of termination of employment by resignation with the consent of the Company, or the date of termination of employment in other cases. Generally, options granted under the Incentive Plan are not transferable by the grantee other than by testament or the laws of descent and distribution. All other terms, including the time or times at which an option becomes exercisable, may be determined by the Committee in its discretion.

The Incentive Plan also authorizes the Committee to grant restricted stock, deferred stock and stock appreciation rights ("SARs") in connection with options granted. SARs entitle the optionee to receive upon exercise cash or Common Stock, as determined by the Committee, equal in value to the difference between the option price and the current fair market value of the stock subject to the option and related SAR. Exercise of a SAR is in lieu of exercise of the related option.

Under the Incentive Plan, if Messrs. Grossman and Issette sell all or any portion of their interest in the Company to a non-affiliated purchaser, they may direct holders of options and awards to sell to such purchaser all or the same portion of the Common Stock acquired or to be acquired by such holders pursuant to the Incentive Plan. The Incentive Plan also contains certain change in control provisions which could cause options to become immediately exercisable (and the economic value of options to become distributable in cash) and restrictions and deferral limitations applicable to other awards to lapse in the event Messrs. Grossman and Issette cease to control at least 40.1% of the outstanding voting securities of the Company. It is also possible that certain payments made as a result of a change in control could constitute "parachute payments" which are not deductible for federal income tax purposes by the Company.

Employee Warrant

In 1992, the Company granted a warrant to Kevin Hughes, National Sales Manager, which entitles Mr. Hughes to receive 126,480 shares of Common Stock (80 shares pre-split and pre-stock dividend) in June 1995, provided Mr. Hughes is still employed by the Company at such time. Mr. Hughes has agreed to grant a proxy to Messrs. Grossman and Issette, jointly, to vote these shares when issued. Such proxy will be irrevocable for a period of 10 years from the date it is granted. Mr. Hughes has also given Messrs. Grossman and Issette a 30-day right of first refusal in the event he desires to sell his shares or offer them for sale.

Limitation of Liability and Indemnification Matters

The Company's Amended and Restated Certificate of Incorporation provides that the Board of Directors shall indemnify the directors and officers of the Company and may indemnify employees and other persons serving at the request of the Company in any other capacity for or on behalf of the Company, to the maximum extent permitted by Delaware law or any other applicable laws.

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

At present, the Company is not aware of any pending or threatened litigation or proceeding involving a director or officer of the Company in which indemnification would be required or permitted. The Company believes that its charter provisions are necessary to attract and retain qualified persons as directors and officers.

PRINCIPAL AND SELLING STOCKHOLDERS

The following table sets forth certain information concerning the beneficial ownership of the Company's Common Stock immediately prior to this offering and as adjusted to reflect the sale of shares of Common Stock by such holders pursuant to this offering by (i) each person known by the Company to be the beneficial owner of 5% or more of the outstanding Common Stock, (ii) each of the Company's directors, (iii) each of the Company's executive officers, and (iv) all of the Company's officers and directors as a group. Except as otherwise indicated, the Company believes that the beneficial owners of the Common Stock listed below have sole voting and investment power with respect to such shares, based on information provided by such owners and subject to community property laws, where applicable.

	Beneficial Ownership Prior to Offering		Number of Shares being sold in the Offering	Beneficial Ownership after Offering	
Name and address of beneficial owner	Number of Shares	Percentage		Number of Shares	Percentage (1)
Larry S. Grossman (2) ..... 650-B Anthony Trail Northbrook, Illinois 60062	1,150,968(3)	43%	217,392	933,576(3)	29%
Arlen L. Issette (2) ..... 650-B Anthony Trail Northbrook, Illinois 60062	1,150,968(3)	43%	217,392	933,576(3)	29%
John Tauber (2) ..... 650-B Anthony Trail Northbrook, Illinois 60062	183,396	7%	—	183,396	6%
All Officers and Directors as a Group (3 persons)	2,485,332	93%	434,784	2,050,548	64%

(1) Assuming no exercise of the Warrants, the Underwriter's Option or the Warrants underlying the Underwriter's Option.

(2) These stockholders have entered into certain agreements with respect to the stock owned by each of them. Under the terms of these agreements, Messrs. Grossman and Issette have agreed to vote their shares for each other as directors, effective until February 2004. Mr. Tauber has granted a proxy to vote his shares to Messrs. Grossman and Issette, jointly. Such proxy is irrevocable until April 2004. Mr. Tauber has also given Messrs. Grossman and Issette a 30-day right of first refusal in the event he sells his shares or offers them for sale.

(3) Excludes the shares held by Mr. Tauber, over which Messrs. Grossman and Issette have voting control, but as to which they disclaim beneficial ownership.

Messrs. Grossman and Issette may be deemed to be promoters of the Company as that term is defined under the Securities Act. Each has agreed not to sell his stock publicly for a period of two years from the date of this Prospectus without the written permission of the Underwriter, provided that each of Messrs. Grossman and Issette may elect, after three months from the date of this Prospectus, to sell Common Stock generating aggregate gross proceeds of $1.5 million, pursuant to Rule 144. In addition, existing stockholders will be permitted to sell shares to one another generally without restriction. See "Underwriting."