POSITRON CORP
Form 10KSB
March 30, 2004

FY 2003 POSITRON CORPORATION FORM 10-KSB

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

FORM 10-KSB

ANNUAL REPORT
UNDER SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2003
Commissions file number: 0-24092

POSITRON

[GRAPHIC OMITED]

Positron Corporation
A Texas Corporation
1304 Langham Creek Drive, Suite 300, Houston, Texas 77084
(281) 492-7100

IRS Employer Identification Number: 76-0083622

Securities registered under Section 12(b) of the Exchange Act: NONE
Securities registered under Section 12(g) of the Exchange Act: COMMON STOCK, $.01 PAR VALUE

Check whether the issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB.[X]

Issuer's revenues for fiscal year ended December 31, 2003: $5,068,000.

Aggregate market value of common stock held by non-affiliates of the Registrant as of March 18, 2004: $2,127,432.

As of March 18, 2004, there were 53,185,803 shares of the Registrant's common stock, $.01 par value outstanding

Documents incorporated by reference: None

Transitional Small Business Disclosure Format (check one): Yes No X

PART I

ITEM 1. DESCRIPTION OF BUSINESS

GENERAL

Positron Corporation (the "Company") was incorporated in the State of Texas on December 20, 1983, and commenced commercial operations in 1986. The Company designs, manufactures, markets and services advanced medical imaging devices utilizing positron emission tomography ("PET") technology under the trade-name POSICAM(TM) systems. Unlike other currently available imaging technologies, PET technology permits the measurement of the biological processes of organs and tissues as well as producing anatomical and structural images. POSICAM(TM) systems, which incorporate patented and proprietary technology, enable physicians to diagnose and treat patients in the areas of cardiology, neurology and oncology. The Food and Drug Administration ("FDA") approved the initial POSICAM(TM) system for marketing in 1985, and as of December 31, 2003, the Company has sold twenty seven (27) POSICAM(TM) systems, of which thirteen (13) are in leading medical facilities in the United States and seven (7) are installed in international medical institutions. The Company has reacquired two systems, which are being held in inventory for resale. The Company presently markets its POSICAM(TM) systems at list prices of up to $1.7 million depending upon the configuration and equipment options of the particular system.

The following table provides summary information regarding the Company's installed base of POSICAM(TM) systems, which were operational as of December 31, 2003:

Site	Install Location	Clinical Application	D
Memorial Hospital	Jacksonville, FL	Cardiology/Oncology/Neurology	1
Beth Israel	New York, NY	Cardiology/Oncology/Neurology	1
Crawford Long Hospital	Atlanta, GA	Cardiology/Oncology	1
Hermann Hospital	Houston, TX	Cardiology/Oncology/Neurology	1
Bergan Mercy Hospital	Omaha, NE	Cardiology/Oncology/Neurology	1
Buffalo Cardiology & Pulmonary Assoc.	Williamsville, NY	Cardiology/Oncology	1
Hadassah Hospital	Israel	Cardiology/Oncology/Neurology	1
Baptist Hospital	Nashville, TN	Cardiology/Oncology/Neurology	1
Nishidai Clinic (3 systems)	Japan	Cardiology/Oncology/Neurology	2
National Institute of Radiological Sciences	Japan	Cardiology/Oncology/Neurology	2
Heart Center of the Niagara	Niagara Falls, NY	Cardiology/Oncology/Neurology	2
McAllen PET Imaging Center	Laredo, TX	Cardiology/Oncology	2
Nishidai Clinic (2 systems)	Japan	Cardiology/Oncology/Neurology	2
Crawford Long Hospital	Atlanta, GA	Cardiology/Oncology	2
Lancaster Cardiology Medical Group	Lancaster, CA	Cardiology/Oncology	2
Health Imaging Services	Cullman, AL	Cardiology/Oncology	2
Hermann Hospital	Houston, TX	Cardiology/Oncology	2

PET technology is an advanced imaging technique, which permits the measurement of the biological processes of organs and tissues, as well as producing

anatomical and structural images. Other advanced imaging techniques, such as magnetic resonance imaging ("MRI") and computed tomography ("CT"), produce anatomical and structural images, but do not image or measure biological processes. The ability to measure biological abnormalities in tissues and organs allows physicians to detect disease at an early stage, and provides information, which would otherwise be unavailable, to diagnose and treat disease. The Company believes that PET technology can lower the total cost of diagnosing and tracing certain diseases by providing a means for early diagnosis and reducing expensive, invasive or unnecessary procedures, such as angiograms or biopsies which, in addition to being costly and painful, may not be necessary or appropriate.

Commercialization of PET technology commenced in the mid-1980s and the Company is one of several commercial manufacturers of PET imaging systems in the United States. Although the other manufacturers are substantially larger, the Company believes that its POSICAM(TM) systems have proprietary operational and performance characteristics, which may provide certain performance advantages over other commercially available PET systems. Such performance advantages include: (i) high count-rate capability and high sensitivity, which result in faster, more accurate imaging; (ii) enhanced ability to use certain types of radiopharmaceuticals, which reduces reliance on a cyclotron and enhances patient throughput; (iii) ability to minimize patient exposure to radiation; and (iv) ability to minimize false positive and false negative diagnoses of disease. The medical imaging industry in which the Company is engaged is, however, subject to rapid and significant technological change. There can be no assurance that the POSICAM(TM) systems can be upgraded to meet future innovations in the PET industry or that new technologies will not emerge, or existing technologies will not be improved, which would render the Company's products obsolete or non-competitive. See "Item 1. Description of Business - Risks Associated with Business Activities-Substantial Competition and Effects of Technological Change".

The Company's initial focus was the clinical cardiology market, where its POSICAM(TM) systems have been used to assess the presence and extent of coronary artery disease, such as the effect of arterial blockages and heart damage due to heart attacks. In 1994 and 1995, the Company made technological advances which allowed it to market its products to the neurological and oncological markets. Neurological applications of POSICAM(TM) systems include diagnoses of certain brain disorders, such as epileptic seizures, dementia, stroke, Alzheimer's disease, Pick's disease and Parkinson's disease. In oncology, POSICAM(TM) systems are used in the diagnosis and evaluation of melanoma and tumors of the bone and various organs and tissues such as the brain, lungs, liver, colon, breasts and lymphatic system.

MEDICAL IMAGING INDUSTRY OVERVIEW

Diagnostic imaging allows a physician to assess disease, trauma or dysfunction without the necessity of surgery. The diagnostic imaging industry includes ultrasound, X-ray, MRI, CT, and nuclear medicine (which includes PET and Single-Photon Emission Computed Tomography ("SPECT")). MRI technology uses powerful magnetic fields to provide anatomical and structural images of the brain, the spine and other soft tissues, as well as determining the location and size of tumors. CT scans use X-ray beams to obtain anatomical and structural images of bones and organs. Nuclear medicine focuses on providing information about the function and biological processes of organs and tissues through the

use of radiopharmaceuticals.

The first prototype PET scanner was developed in the mid 1970s and the first commercial PET scanner was constructed in 1978. Approximately 1,200 dedicated PET systems are currently operational in the United States and approximately 400 additional dedicated PET systems are in commercial use internationally.

PET TECHNOLOGY

The PET imaging process begins with the injection of a radiopharmaceutical (a drug containing a radioactive agent) by a trained medical person into a patient's bloodstream. After being distributed within the patient's body, the injected radiopharmaceutical undergoes a process of radioactive decay, whereby positrons (positively charged electrons) are emitted and subsequently converted along with free electrons into two gamma rays or photons. These paired gamma events are detected by the POSICAM(TM) systems as coincidence events. The source of the photons is determined and is reconstructed into a color image of the scanned organ utilizing proprietary computer software. Since certain functional processes, such as blood flow, metabolism or other biochemical processes, determine the concentration of the radiopharmaceutical throughout the body, the intensity or color at each point in the PET image directly maps the vitality of the respective function at that point within an organ.

In cardiology, PET imaging is an accurate, non-invasive method of diagnosing or assessing the severity of coronary artery disease. Unlike other imaging technologies, PET technology allows a physician to determine whether blood flow to the heart muscle is normal, thereby identifying narrowed coronary arteries, and whether damaged heart muscle is viable and may benefit from treatment such as bypass surgery or angioplasty. In addition, dynamic and gated imaging can display and measure the ejection fraction and wall motion of the heart.

In neurology, PET imaging is now being used as a surgical planning tool to locate the source of epileptic disturbances in patients with uncontrollable seizures. In other neurological applications, PET is used in the diagnosis of dementia, Alzheimer's disease, Pick's disease and Parkinson's disease, and in the evaluation of stroke severity.

In oncology, PET imaging has historically been used to measure the metabolism of tumor masses after surgery or chemotherapy. Clinical experience has shown that PET is more accurate than CT scans or MRI in determining the effectiveness of chemotherapy and radiotherapy in the treatment of cancer. PET scans are becoming commonly used to assess suspected breast cancer and whether the lymph system has become involved. Whole body PET scans are now routinely performed to survey the body for cancer. This application enables oncologists to see the total picture of all metastases in a patient, thereby allowing them to properly tailor the course of treatment.

The radiopharmaceuticals employed in PET imaging are used by organs in their natural processes, such as blood flow and metabolism, without affecting their normal function, and quickly dissipate from the body. Radiopharmaceuticals used in PET procedures expose patients to a certain amount of radiation, which is measured in units of milliRads. Exposure to radiation can cause damage to living tissue, and the greater the radiation exposure, the greater the potential for damage. Certain PET procedures expose a patient to less radiation than would be associated with other imaging technologies. A PET cardiac scan, using

the radiopharmaceutical Rubidium-82, results in exposure of approximately 96 milliRads, while a neurological PET scan using 18-FDG, results in exposure of approximately 390 milliRads. In contrast, a typical chest X-ray results in exposure of approximately 150 milliRads and a CT scan results in exposure of approximately 500 to 4,000 milliRads, depending on the procedure.

Radiopharmaceuticals used in PET technology can be created using many natural substances including carbon, oxygen, nitrogen and fluorine. The PET procedure to be performed determines the type of radiopharmaceutical used. Radiopharmaceuticals are made ready for use at a clinic, hospital, or commercial nuclear pharmacy by either a cyclotron or generator. Cyclotrons require an initial capital investment of up to $2 million, an additional capital investment for site preparation, and significant annual operating expenses. Generators require an initial capital investment of approximately $60,000, no additional capital investment for site preparation, and monthly operating expenses of approximately $30,000. While POSICAM(TM) systems have been designed flexibly to be used with both cyclotron and generator-produced radiopharmaceuticals, they have proprietary design features that enhance their ability to use generator-produced radiopharmaceuticals. As a result, clinics or hospitals intending to focus on certain cardiac PET applications can avoid the significant capital and operating expenses associated with a cyclotron.

MARKETING STRATEGY

The Company's initial marketing strategy targeted clinical cardiology based on research conducted at the University of Texas. This research showed the commercial potential of clinical cardiology applications of PET imaging. With the development of the POSICAM(TM) HZ, POSICAM(TM) HZL series and now the mPower(TM) series of systems, Positron is pursuing the full oncology, cardiology and neurology related PET application markets. The Company believes that it can capture additional market share by leveraging its strong reputation in the cardiology marketplace to continue to strengthen its leadership position in this sector, while building its expertise and reputation in the oncology and neurology application markets.

To market its systems, Positron relies on referrals from users of its existing base of installed scanners, trade show exhibits, trade journal advertisements, clinical presentations at professional and industry conferences, and published articles in trade journals. The Company uses both sales personnel and key distributors who have geographic or market expertise. Positron incurs minimal expense for sales until there is a completed sale. Positron continued to broaden its communications with the market in support of sales through its developing distribution network and using the internet and directed mailings. We believe that this approach will be cost effective and allow Positron to compete cost effectively with larger competitors. There is no assurance that the Company's marketing strategy is sufficiently aggressive to compete against larger, better funded competitors.

THE POSICAM(TM) SYSTEM

At the heart of the POSICAM(TM) system is its detector assembly, which detects the gammas from positron emissions, and electronic circuits that pinpoint the location of each emission. POSICAM(TM) systems are easy to use and are neither physically confining nor intimidating to patients. POSICAM(TM) scans are commonly performed on an outpatient basis.

The Company's POSICAM(TM) system compares favorably with PET systems produced by other manufacturers based upon count rate and sensitivity. The count-rate and sensitivity of an imaging system determine its ability to detect, register and assimilate the greatest number of meaningful positron emission events in the shortest period of time. The high count-rate capability and sensitivity of the POSICAM(TM) systems result in good diagnostic accuracy as measured by fewer

false positives and false negatives. Further benefits of high count-rate and sensitivity include faster imaging and the ability to use short half-life radiopharmaceuticals, thereby reducing patient exposure to radiation and potentially reducing the capital cost to some purchasers by eliminating the need for a cyclotron for certain cardiac applications.

The detector assembly consists of crystals, which scintillate (emit light) when exposed to gamma photons from positron-electron annihilations, in combination with photomultiplier tubes, which are coupled to the crystals and convert the scintillations into electrical impulses. The Company employs its own patented staggered crystal array design for the POSICAM(TM) detectors. Unlike competing PET systems, this feature permits the configuration of the detector crystals to collect overlapping slices and more accurately measure the volume of interest by eliminating image sampling gaps. This is important since under-sampling, or gaps in sampling, can contribute to an inaccurate diagnosis. The crystal design also reduces "dead time" - the time interval following the detection and registration of an event during which a subsequent event cannot be detected. The basic unit of identification within each crystal module is small, thereby reducing the probability of multiple hits during a dead period for higher levels of radioactive flux (activity in the patient).

The POSICAM(TM) system creates a high number of finely spaced image slices. An image slice is a cross-sectional view that is taken at an arbitrary angle to the angle of the organ being scanned, and not necessarily the angle a physician wishes to view. The POSICAM(TM) computer can then adjust the cross-sectional view to create an image from any desired angle. The high number of finely spaced image slices created by the POSICAM(TM) system enhances the accuracy of the interpreted image set.

An integral part of a POSICAM(TM) system is its proprietary data acquisition microprocessor and its application system software. The Company's software can reconstruct an image in five seconds or less. The Company has expended substantial effort and resources to develop computer software that is user-friendly and clinically oriented. The only personnel needed to perform clinical studies with the POSICAM(TM) systems are a trained nurse, a trained technician and an overseeing physician for patient management and safety.

POSICAM(TM) HZ, HZL AND MPOWER(TM)

In addition to the basic POSICAM(TM) system, the Company offers two advanced versions, the POSICAM(TM) HZ and the POSICAM(TM) HZL, which are now being further enhanced to become the mPower(TM) product line. Oncologists and neurologists require enhanced resolution and a large field of view to detect small tumors and scan large organs, such as the liver. The mPower(TM) systems employ new detector concepts to satisfy these needs while maintaining the high count rate capability and sensitivity of the basic POSICAM(TM). In May 1991, the Company received approval from the FDA to market the POSICAM(TM) HZ, and in May 1993, the Company received a patent for the innovative light guide and detector staggering concepts used in the POSICAM(TM) HZ and HZL. In July 1993, the Company received FDA approval to market in the United States the POSICAM(TM) HZL, which has a larger axial field of view than the POSICAM(TM) HZ, facilitating whole body scanning and the scanning of large organs. In July 2002, the Company received FDA approval to market in the United States the POSICAM(TM) mPower(TM) system.

The Company believes that the special features of the POSICAM(TM) HZL and mPower(TM) systems enhance their usefulness in oncology and neurology applications. Furthermore, many price sensitive hospitals and health care providers may seek to leverage external resources for the delivery of PET diagnostic services for their patients. To respond to this market need, the Company intends to expand into the mobile PET market, for which the Company has previously received 510(k) approval from the FDA. In addition, the POSICAM(TM) system has been registered with the State of Texas Department of Health, Bureau of Radiation Control, as a Device suitable for both stationary and mobile use.

CUSTOMER SERVICE AND WARRANTY

The Company has three (3) field service engineers in the United States who have primary responsibility for supporting and maintaining the Company's installed equipment base. In addition, the Company has field engineers involved in site planning, customer training, sales of hardware upgrades, sales and administration of service contracts, telephone technical support and customer service.

The Company typically provides a one-year warranty to purchasers of POSICAM(TM) systems. However, in the past, the Company offered multi-year warranties to facilitate sales of its systems. Following the warranty period, the Company offers purchasers a comprehensive service contract under which the Company provides all parts and labor, system software upgrades and unlimited service calls. The Company offers to provide service to all of its POSICAM(TM) systems, six (6) of which are under formal service contracts: one (1) service contract is automatically renewed on a month-to-month basis; and four (4) expire in 2004. The Company intends to negotiate the extension of all of the service contracts expiring in 2004; however, there can be no assurance that such extensions will be obtained.

The Company's service goal is to maintain maximum system uptime. Success of a clinical site is largely dependent on patient volume during normal working hours and, therefore, equipment uptime and reliability are key factors in this success. Records compiled by the Company show an average uptime of more than 95% for all installed POSICAM(TM) systems during 2003 and 2002.

COMPETITION

The Company faces competition from three other commercial manufacturers of PET systems and from other imaging technologies. The Company does not believe that MRI and CT scan imaging represent significant competing technologies, but rather complementary technologies to PET, since PET, MRI and CT scans each provide information not available from the others. However, magnetic resonance angiography ("MRA") is seen by some cardiologists to be competitive with PET myocardial perfusion imaging ("MPI").

The Company's primary competition from commercial manufacturers of PET systems comes from General Electric Medical Systems ("GEMS") a division of General Electric Company ("GE"), Siemens Medical Systems, Inc. in a joint venture with CTI, Inc. of Knoxville, Tennessee ("CTI/Siemens"), and ADAC Medical Systems, which was acquired by Philips Medical ("ADAC/Philips"). GE, CTI/Siemens and ADAC/Philips have substantially greater financial, technological and personnel resources than the Company. See "Item 1. Description of Business-Risk Associated with Business Activities-Substantial Competition and Effects of

Technological Change". In addition, two Japanese manufacturers, Hitachi and Shimadzu, have manufactured and sold PET scanners in Japan but not in the United States. These manufacturers represent additional sources of competition that have greater financial, technological and personnel resources than the Company.

GE and CTI/Siemens each introduced a scanner in 2001 that combined CT scanning and PET in one gantry. This scanner type could put Positron at a competitive disadvantage. High field MRI technology, an advanced version of MRI, is in the development stage, but is a potential competitor to PET in certain neurology and oncology applications. Presently, high field MRI may be useful in performing certain research (non-clinical) applications such as blood flow studies to perform "brain mapping" to localize the portions of the brain associated with individual functions (such as motor activities and vision). However, high field MRI does not have the capability to assess metabolism. The Company cannot presently predict the future competitiveness of high field MRI.

THIRD-PARTY REIMBURSEMENT

POSICAM(TM) systems are purchased or leased primarily by medical institutions and clinics, which provide health care services to their patients. Such institutions or patients typically bill or seek reimbursement from various third-party payers such as Medicare, Medicaid, other governmental programs and private insurance carriers for the charges associated with the provided healthcare services. The Company believes that the market success of PET imaging depends largely upon obtaining favorable coverage and reimbursement policies from such programs and carriers.

MEDICARE/MEDICAID REIMBURSEMENT. Prior to March 1995, Medicare and Medicaid did not provide reimbursement for PET imaging. Decisions as to such policies for major new medical procedures are typically made by the Center for Medicare and Medicaid Services ("CMS") formerly the U.S. Health Care Financing Administration, based in part on recommendations made to it by the Office of Health Technology Assessment ("OHTA"). Historically, OHTA has not completed an evaluation of a procedure unless all of the devices and/or drugs used in the procedure have received approval or clearance for marketing by the FDA. Decisions as to the extent of Medicaid coverage for particular technologies are made separately by the various state Medicaid programs, but such programs tend to follow Medicare national coverage policies. In 1999, CMS approved reimbursement on a trial basis for limited cardiac, oncological, and neurological diagnostic procedures. In December 2000, CMS expanded its coverage in cardiology, oncology and neurology for centers utilizing true PET scanners. In July 2001, CMS further expended its coverage of these procedures and virtually eliminated reimbursement for SPECT imagers performing PET scans. This helped to strengthen the market for "true" PET scanners. In 2001, CMS also implemented its procedures to differentiate hospital based outpatient services from free-standing outpatient services. Under this new program, hospital based PET centers are to be paid less for providing PET services than free-standing centers. This program was to be finalized in 2002. Although expanding, Medicare and Medicaid reimbursement for PET imaging continues to be restrictive. Although the CMS broadened coverage in 2000, the agency has maintained that it intends to evaluate the effectiveness of PET and may change its policy toward reimbursement at some future date. The Company believes that restrictive reimbursement policies have had a very significant adverse affect on widespread use of PET imaging and have, therefore, adversely affected the Company's business, financial condition, results of operations and cash flows.

In 1996, CMS approved reimbursement for one PET procedure in cardiology. In 1998, four additional procedures in cardiology, oncology and neurology were approved. In February 1999, three additional procedure reimbursements were approved in oncology. In December 2000, six additional procedure reimbursements were approved in oncology, one in cardiology and one in neurology. In 2001, further refinements of the reimbursement policies were introduced with expansion in oncology. Whether CMS will continue to approve additional reimbursable procedures, and whether private insurers will follow CMS's lead are unknown at this time. PET scanner demand in the US increased markedly after the announcement of increasing reimbursement. It is unknown at this time if the increase in demand will be sustained as reimbursement expands.

In March 2000, the FDA issued a "Draft Guidance" finding 18-FDG and 13-NH3 (radiopharmaceuticals used in the Company's PET scanner) to be safe and effective for broad oncology and cardiology indications. There is no assurance, however, that the FDA's findings in the future will not change or that additional radiopharmaceuticals will be approved.

PRIVATE INSURER REIMBURSEMENT. Until the expansion of coverage of CMS, most insurance carriers considered PET imaging to be an investigational procedure and did not reimburse for procedures involving PET imaging. However, this perspective has begun to change as a result of Medicare's expanding acceptance of reimbursements for certain PET procedures. The Company believes that certain private insurance carriers are expanding coverage as experience is gained with PET imaging procedures. While they may not have broad PET reimbursement policies in place today, those providing some reimbursement for PET scans do so on a case-by-case basis.

Any limitation of Medicare, Medicaid or private payer coverage for PET procedures using the POSICAM(TM) system will likely have a material adverse effect on the Company's business, financial condition, results of operations and cash flows.

MANUFACTURING

The Company believes that it currently has the ability to assemble its POSICAM(TM) scanners in its 7,963 square foot facility located in Houston, Texas. Scanners are generally produced by assembling parts furnished to the Company by outside suppliers. The Company believes that it can assemble and test a typical POSICAM(TM) system in two to three months.

There are several essential components of the Company's POSICAM(TM) and mPower(TM) systems which are obtained from limited or sole sources, including bismuth germinate oxide ("BGO") crystals, which detect gamma photons from positron emissions, and photomultiplier tubes, which convert light energy emitted by such crystals into electrical impulses for use in the image reconstruction process. During 2000, the Company qualified a second vendor for BGO crystal assemblies. This has reduced the Company's exposure in this critical component. While the Company attempts to make alternate supply arrangements for photomultiplier tubes and other critical components, in the event that the supply of any of these components is interrupted, there is no assurance that those arrangements can be made and will provide sufficient quantities of components on a timely or uninterrupted basis. Further, there is no assurance that the cost of supplies will not rise significantly or that components from alternate suppliers will continue to meet the Company's needs and quality control requirements.

RESEARCH AND DEVELOPMENT

The Company's POSICAM(TM) systems are based upon proprietary technology initially developed at the University of Texas Health Science Center ("UTHSC")

in Houston, Texas, under a $24 million research program begun in 1979 and funded by UTHSC and The Clayton Foundation for Research ("Clayton Foundation"), a Houston-based, non-profit organization. Since that time, the Company has funded further product development and commercialization of the system. These research and development activities are costly and critical to the Company's ability to develop and maintain improved systems. The Company's research and development

expenses were approximately $671,000 and $1,036,000 for the years 2003 and 2002, respectively. The Company's inability to conduct such activities in the future may have a material adverse affect on the Company's business as a whole.

PATENT AND ROYALTY ARRANGEMENTS

The Company acquired the know-how and patent rights for positron imaging from three entities: the Clayton Foundation, K. Lance Gould (formerly a director) and Nizar A. Mullani (also formerly a director.) Pursuant to agreements with each of them, the Company was obligated to pay royalties of up to 4.0% in the aggregate of gross revenues from sales, uses, leases, licensing or rentals of the relevant technology. Royalty obligations amounting to approximately $310,000 were included in liabilities at December 31, 2003.

Two of the Company's patents, issued in January 1986 and February 1987 and expiring in January 2003 and February 2004, respectively, relate to the staggered crystal array design of its original POSICAM(TM) systems. One additional patent issued in June 1987 and expiring in June 2004 relates to technology, which the Company, by obtaining the patent, has reserved the right to use. The Company maintains certain of its patents in Germany and has applied for certain patents in Japan.

The Company seeks to protect its trade secrets and proprietary know-how through confidentiality agreements with its consultants. The Company requires each consultant to enter into a confidentiality agreement containing provisions prohibiting the disclosure of confidential information to anyone outside the Company, and requiring disclosure to the Company of any ideas, developments, discoveries or investigations conceived during service as a consultant and the assignment to the Company of patents and proprietary rights to such matters related to the business and technology of the Company.

BACKLOG

As of December 31, 2003, the Company had no outstanding orders for mPower(TM) systems.

PRODUCT LIABILITY AND INSURANCE

Medical device companies are subject to a risk of product liability and other liability claims in the event that the use of their products results in personal injury claims. The Company has not experienced any product liability claims to date. The Company maintains liability insurance with coverage of $1 million per occurrence and an annual aggregate maximum of $2 million.

EMPLOYEES

As of December 31, 2003, the Company employed twelve (12) full-time employees and two (2) part-time consultants: three (3) in engineering, three (3) in

customer support, three (3) in manufacturing, one (1) in sales and marketing, and four (4) in the executive and administration department. None of the Company's employees are represented by a union.

RISKS ASSOCIATED WITH BUSINESS ACTIVITIES

HISTORY OF LOSSES. To date the Company has been unable to sell POSICAM(TM) systems in quantities sufficient to be operationally profitable. Consequently, the Company has sustained substantial losses. During the year ended December 31, 2003, the Company had a net income of approximately $892,000, compared to a net loss of $2,967,000 during 2002. During 2003, $2,376,000 of income was the result of a non-recurring sale of the Company's Cardiac PET Software. At December 31, 2003, the Company had an accumulated deficit of approximately $56,775,000. There can be no assurances that the Company will ever achieve the level of revenues needed to be operationally profitable in the future and if profitability is achieved, that it will be sustained. Due to the sizable sales price of each POSICAM(TM) system and the limited number of systems that have been sold or placed in service in each fiscal period, the Company's revenues have fluctuated, and may likely continue to fluctuate significantly from quarter to quarter and from year to year. The opinion of the Company's independent auditors for the year ended December 31, 2003 expressed substantial doubt as to the Company's ability to continue as a going concern. The Company will need to increase system sales to become profitable or obtain additional capital.

RECRUITING AND RETENTION OF QUALIFIED PERSONNEL. The Company's success is dependent to a significant degree upon the efforts of its executive officers and key employees. The loss or unavailability of the services of any of its key personnel could have a material adverse effect on the Company. The Company's success is also dependent upon its ability to attract and retain qualified personnel in all areas of its business, particularly management, research and development, sales and marketing and engineering. There can be no assurance that the Company will be able to continue to hire and retain a sufficient number of qualified personnel. If the Company is unable to retain and attract such qualified personnel, its business, operating results and cash flows could be adversely affected.

WORKING CAPITAL At December 31, 2003, the Company had cash and cash equivalents of $5,000 compared to $107,000 at December 31, 2002. The Company concluded a private placement in August 1999, which resulted in an equity infusion of approximately $11,400,000 net to the Company. In 2001, the Company received $2,000,000 in proceeds on a note payable to a stockholder secured by substantially all of the Company's assets. In spite of the equity infusion and loan proceeds, the Company believes that it is possible that it may continue to experience operating losses and accumulate deficits in the foreseeable future. If we are unable to obtain financing to meet our cash needs we may have to severely limit or cease our business activities or may seek protection from our creditors under the bankruptcy laws.

NASDAQ SMALLCAP MARKET ELIGIBILITY FAILURE TO MEET MAINTENANCE REQUIREMENTS: DELISTING OF SECURITIES FROM THE NASDAQ SYSTEM. The Company's common stock was previously listed on the NASDAQ SmallCap Market. The Board of Governors of the National Association of Securities Dealers, Inc. ("NASD") has established certain standards for the continued listing of a security on the NASDAQ SmallCap Market. The standards required for the Company to maintain such listing include, among other things, that the Company have total capital and surplus of

at least $2,000,000. In 1997, the Company failed to maintain its NASDAQ stock market listing and may not meet the substantially more stringent requirements to be re-listed for some time in the future. There can be no assurances that the Company will ever meet the capital and surplus requirements needed to be re-listed under the NASDAQ SmallCap Market System.

Trading of the Company's common stock is currently conducted on the NASD's Electronic Bulletin Board. Trading in the common stock is covered by rules promulgated under the Exchange Act for non-NASDAQ and non-exchange listed securities. Under such rules, broker/dealers who recommend such securities to persons other than established customers and accredited investors must make a special written suitability determination for the purchaser and receive the purchaser's written agreement to a transaction prior to sale. Securities are exempt from these rules if the market price is at least $5.00 per share. As of December 31, 2003, the closing price of the Company's common stock was $0.04. In addition, the SEC has adopted regulations that generally define a penny stock to be any equity security that has a market price of less than $5.00 per share, subject to certain exceptions. The Company's common stock is currently subject to such penny stock rules. The regulations require the delivery, prior to any transaction involving a penny stock, of a disclosure schedule explaining the penny stock market and the risks associated therewith. As a penny stock, the market liquidity for the Company's common stock is severely affected due to the limitations placed on broker/dealers that sell the common stock in the public market.

SUBSTANTIAL COMPETITION AND EFFECTS OF TECHNOLOGICAL CHANGE. The industry in which the Company is engaged is subject to rapid and significant technological change. There can be no assurance that POSICAM(TM) systems can be upgraded to meet future innovations in the PET industry or that new technologies will not emerge, or existing technologies will not be improved, which would render the Company's products obsolete or non-competitive. The Company faces competition in the United States PET market primarily from GE, CTI/Siemens and ADAC/Philips, each of which has significantly greater financial and technical resources and production and marketing capabilities than the Company. In addition, there can be no assurance that other established medical imaging companies, any of which would likely have greater resources than the Company, will not enter the market. The Company also faces competition from other imaging technologies, which are more firmly established and have a greater market acceptance, including SPECT. There can be no assurance that the Company will be able to compete successfully against any of its competitors.

NO ASSURANCE OF MARKET ACCEPTANCE. The POSICAM(TM) systems involve new technology that competes with more established diagnostic techniques. The purchase and installation of a PET system involves a significant capital expenditure on the part of the purchaser. A potential purchaser of a PET system must have an available patient base that is large enough to provide the utilization rate needed to justify such capital expenditure. There can be no assurance that PET technology or the Company's POSICAM(TM) systems will be accepted by the target markets, or that the Company's sales of POSICAM(TM) systems will increase or that the Company will be profitable.

PATENTS AND PROPRIETARY TECHNOLOGY. The Company holds certain patent and trade secret rights relating to various aspects of its PET technology, which are of material importance to the Company and its future prospects. There can be no assurance, however, that the Company's patents will provide meaningful

protection from competitors. Even if a competitor's products were to infringe on patents held by the Company, it would be costly for the Company to enforce its rights, and the efforts at enforcement would divert funds and resources from the Company's operations. Furthermore, there can be no assurance that the Company's products will not infringe on any patents of others.

In addition, the Company requires each of its consultants to enter into a confidentiality agreement designed to assist in protecting the Company's proprietary rights. There can be no assurance that these agreements will provide meaningful protection or adequate remedies for the Company's trade secrets or proprietary know-how in the event of unauthorized use or disclosure of such information, or that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to the Company's trade secrets and proprietary know-how.

GOVERNMENT REGULATION. Various aspects of testing, manufacturing, labeling, selling, distributing and promoting our systems and the radiopharmaceuticals used with them are subject to regulation on the federal level by the FDA and in Texas by the Texas Department of Health and other similar state agencies. In addition, sales of medical devices outside the United States may be subject to foreign regulatory requirements that vary widely from country to country. The FDA regulates medical devices based on their device classification. Positron's device is listed as a Class II medical device, the safety and effectiveness for which are regulated by the use of special controls such as published performance standards. To date, the FDA has not published performance standards for PET systems. If the FDA does publish performance standards for PET systems, there can be no assurance that the standards will not have a potentially adverse effect on our product, including substantial delays in manufacturing or disrupting the Company's marketing activities. Other FDA controls, reporting requirements and regulations also apply to manufacturers of medical devices, including: reporting of adverse events and injuries, and the mandatory compliance with the Quality System Regulations commonly known as Good Manufacturing Practices.

In addition to the regulatory requirements affecting the day-to-day operations of the Company's product, the FDA requires medical device manufacturers to submit pre-market clearance information about their proposed new devices and/or proposed significant changes to their existing device prior to their introduction into the stream of commerce. This process, commonly referred to as a 510(k) Clearance, is an extensive written summary of performance information, comparative information with existing medical devices, product labeling information, safety and effectiveness information, intended use information, and the like. Until the FDA has had the opportunity to thoroughly review and "clear" the submission, commercial distribution of the product is specifically disallowed. Although the FDA is required to respond to all pre-market notifications within ninety days of receiving them, the FDA often takes longer to respond. Once the FDA has cleared the device, it notifies the manufacturer in terms of a "substantial equivalence" letter. The manufacturer may begin marketing the new or modified device when it receives the substantial equivalence letter. If the FDA requires additional information or has specific questions, or if the Company is notified that the device is not "substantially equivalent" to a device that has already been cleared, the Company may not begin to market the device. A non-substantial equivalence determination or request for additional information of a new or significantly modified product could materially affect the Company's financial results and operations. There can be no assurance that any additional product or enhancement that the Company may develop will be approved by the FDA. Delays in receiving regulatory approval could have a material adverse effect on the Company's business. The Company submitted an application for such a 510(k) clearance on June 18, 2002 and was granted a new 510(k) on July 12, 2002, number K022001.

Moreover, the FDA routinely inspects medical device manufacturers to determine

compliance with Quality System Regulations, and conducted such a routine inspection of the Company's operation in February 2004. The inspection resulted in issuance of nine inspectional observations. The Company is in the process of addressing all nine inspectional observations and providing responses to the FDA. The Company is cooperating fully and intends to continue to work with the FDA on all compliance matters. However, there can be no assurance that any of the Company's corrective actions or responses to the FDA will be determined adequate by the FDA, or that any such corrective actions and responses will meet expected dates of completion for compliance.

In addition to complying with federal requirements, the Company is required under Texas state law to register with the State Department of Health with respect to maintaining radiopharmaceuticals on premises for testing, research and development purposes. Positron submitted a new application to the Texas Department of Health for a Radioactive Material License on July 10, 2000 and was granted a Radioactive Material License with an expiration date of July 31, 2007. While in the past the Company has received notice of only minor violations which were promptly and easily corrected, and while the Company believes that it has taken adequate measures to prevent the recurrence of any violations, there is no assurance that violations may not occur in the future, which could have a material adverse effect on the Company's operations. In addition, Texas state law requires a safety evaluation of devices that contain radioactive materials. The Company submitted an application for such an evaluation to the Texas Department of Health, Bureau of Radiation Control. As a result, Positron's medical diagnostic scanner has been placed on the Registry of Radioactive Sealed Sources and Devices as of September 20, 2001.

The Company's operations and the operations of PET systems are subject to regulation under federal and state health safety laws, and purchasers and users of PET systems are subject to federal and state laws and regulations regarding the purchase of medical equipment such as PET systems. All laws and regulations, including those specifically applicable to the Company, are subject to change. The Company cannot predict what effect changes in laws and regulations might have on its business. Failure to comply with applicable laws and regulatory requirements could have material adverse effect on the Company's business, financial conditions, results of operations and cash flows.

Further, sales of medical devices outside the country may be subject to foreign regulatory requirements. These requirements vary widely from country to country. There is no assurance that the time and effort required to meet those varying requirements may not adversely affect Positron's ability to distribute its systems in some countries.

CERTAIN FINANCING ARRANGEMENTS. In order to sell its POSICAM(TM) systems, the Company has from time to time found it necessary to participate in ventures with certain customers or otherwise assist customers in their financing arrangements. The venture arrangements have involved lower cash prices for the Company's systems in exchange for interests in the venture. These arrangements expose the Company to the attendant business risks of the ventures. The Company has, in certain instances, sold its systems to financial intermediaries, which have, in turn, leased the system. Such transactions may not give rise to the same economic benefit to the Company as would have occurred had the Company made a direct cash sale at its regular market price on normal sale terms. There can be no assurance that the Company will not find it necessary to enter similar transactions to effect future sales. Moreover, the nature and extent of the

Company's interest in such ventures or the existence of remarketing or similar obligations could require the Company to account for such transactions as "financing arrangements" rather than "sales" for financial reporting purposes. Such treatment could have the effect of delaying the recognition of revenue on such transactions and may increase the volatility of the Company's financial results.

PRODUCT LIABILITY AND INSURANCE. The use of the Company's products entails risks of product liability. There can be no assurance that product liability claims will not be successfully asserted against the Company. The Company maintains liability insurance coverage in the amount of $1 million per occurrence and an annual aggregate maximum of $2 million. However, there can be no assurance that the Company will be able to maintain such insurance in the future or, if maintained, that such insurance will be sufficient in amount to cover any successful product liability claims. Any uninsured liability could have a material adverse effect on the Company.

NO DIVIDENDS. The Company has never paid cash dividends on its common stock and does not intend to pay cash dividends on its common stock in the foreseeable future.

SIGNIFICANT TRANSACTIONS. The Company entered into a loan arrangement on June 29, 2001 with Imatron, a stockholder of the Company, for the purpose of borrowing up to $2,000,000 to fund operating activities. This loan was collateralized by substantially all the assets of the Company. Interest was charged on the outstanding principal balance at an annual rate of 10% and was payable monthly. As of June 29, 2003 the principal balance of the loan was $2,000,000. Principal on the loan amounting to $1,000,000 and $500,000 was to be repaid within five (5) business days of December 31, 2001 and March 31, 2002, respectively. The remaining $500,000 of loan principal and all unpaid interest was due and payable no later than June 30, 2002.

In conjunction with the loan, the Company granted Imatron warrants to purchase 6,000,000 shares of common stock, at an exercise price of $.30 per share that were exercisable through June 30, 2006. The warrants issued to Imatron had an approximate value of $200,000 at the date of issue. Such cost was treated as a loan origination cost and amortized to expense over the twelve-month term of the note payable, using the effective interest method.

Imatron had previously acquired 9,000,000 shares of the Company's common stock on January 22, 1999.

General Electric Company ("GE") acquired Imatron on December 19, 2001.

Effective June 29, 2003, the Company entered into a Technology Purchase Agreement to transfer its Cardiac PET Software to GE in exchange for cancellation of the indebtedness under this loan and the surrender of the 9,000,000 shares of common stock and the warrant to purchase 6,000,000 shares of common stock. The Company recognized a gain of $2,376,000 related to the sale of this technology. This gain resulted from the cancellation of the Company's obligation for $2,000,000 in principal and accrued interest of $376,000 under the loan. The Company's future commitment to provide assistance to GE for the purpose of fully utilizing and exploiting this technology, as well as the compensation for these services, were provided for in a separate service agreement discussed below.

As part of the transactions contemplated by the Technology Purchase Agreement, the Company entered into a Software License Agreement. Pursuant to terms of the Software License Agreement, the Company received an irrevocable license from GE to continue using, modifying, distributing and otherwise exploiting the Cardiac PET Software in perpetuity.

In conjunction with the Technology Purchase Agreement, the Company also entered into an Agreement for Services for the purpose of assisting GE in fully utilizing and exploiting the Cardiac PET Software. The Company agreed to provide services for a period of six quarters (eighteen months) for a fee of $50,000 per each 3-month period during the term of this agreement. GE committed to pay the fee for the first two quarters of $50,000 (total of $100,000) within two business days of July 29, 2003 and will make payment of any subsequent quarters in advance of such quarter. GE may terminate the Agreement for Services at any time after it has paid the fees for at least four quarters.

ITEM 2. DESCRIPTION OF PROPERTY

The Company is headquartered in Houston, Texas, where it currently leases a 7,963 square foot facility. That facility includes area for system assembly and testing, a computer room for hardware and software product design, and office space. The rental rate for the facility was $6,744 per month through April 30, 2001 and the monthly rate increased to $7,171 for the period from May 1, 2001 through October 31, 2003. The Company reduced its space under lease and lowered the monthly rent to $4,671 for the period from November 1, 2003 through March 31, 2004. The lease expires on March 31, 2004. The Company anticipates that the facility will be sufficient for its 2004 operating activities.

ITEM 3. LEGAL PROCEEDINGS

PROFUTURES CAPITAL BRIDGE FUND, L.P.

On September 26, 2000, ProFutures Bridge Capital Fund, L.P. ("ProFutures") filed a complaint against the Company in Colorado state court for declaratory relief and breach of contract (the "Complaint"). The Complaint alleged that the Company breached four stock purchase warrants issued to ProFutures on the basis that the Company failed to notify ProFutures of dilutive events and failed to register the full number of shares ProFutures was allegedly entitled to purchase under the warrants when, on February 14, 2000, the Company registered 1,500,000 shares of stock underlying ProFutures' warrants instead of 4,867,571. The Complaint further alleged that the Company's issuance of shares of common stock to Imatron, Inc. on or about January 22, 1999, (the "Imatron Transaction") was a dilutive event pursuant to the anti-dilution provisions contained in the four stock purchase warrants. The Complaint sought declarations that the consideration received by the Company in the Imatron Transaction increased the number of shares issuable under the warrants, the Company breached the warrants by failing to notify ProFutures of the Imatron Transaction and its effect on ProFutures' warrants at the time of the Imatron Transaction and that the Company further breached the warrants by failing to register the number of shares ProFutures alleged were purchasable under its warrants. The Complaint sought an unspecified amount of monetary damages.

The Colorado State level case of ProFutures v. Positron, District Court, City and County of Denver, Colorado, Case No. 00CV7146, was tried before the Court in June 2002. The Court issued its Findings of Fact, Conclusions of Law and Judgment on November 13, 2002. The Court agreed with Positron's determination of the value of the consideration paid for the shares issued to Imatron and that there was no evidence of fraud by Positron. The Court agreed with ProFutures that Positron breached the 1996 stock purchase warrant with ProFutures by

failing

to give ProFutures written notice stating the adjusted exercise price and the new number of shares deliverable as a result of the Imatron Transaction and by failing to register the shares to which ProFutures was entitled under the warrant as a result of the Imatron Transaction. Nevertheless, the Court also found that ProFutures' alleged damages were uncertain and speculative and that ProFutures was not entitled to recover actual damages. Therefore ProFutures was awarded $1 in nominal damages. ProFutures has appealed the trial Court's findings and Positron has cross-appealed. Those appeals are presently pending before the Court of Appeals, State of Colorado.

In the federal case of ProFutures v. Positron, et al., United States District Court for the District of Colorado, Case No. 02-N-0154, the Complaint alleged two causes of action against the Company: fraudulent transfer and injunctive relief. The allegations arose out of a June 2001 loan agreement between Positron and Imatron. The action was dismissed in 2002 without prejudice.

10P10, L.P.

In December 2001, 10P10, L.P., the Company's previous landlord for its premises located at 16350 Park Ten Place, Suite 150, Houston, Texas, filed a complaint (Cause No. 2001-65534 in the 165th Judicial District Court of Harris County, Texas) against the Company alleging breach of lease agreement. The Company disputes the amount of lease commissions and construction costs charged by 10P10, L.P. in conjunction with the subleasing of the premises. Although 10P10, L.P. asserted a claim in excess of $150,000, a subsequent analysis of the transactions under the lease has resulted in the reduction of the lease obligation alleged by 10P10, L.P. to approximately $97,000. Although the Company disputes the amount of the claim, due to the pending lawsuit, approximately $97,000 is recorded as an accrued liability as of December 31, 2003. The case is set for trial on a two week docket beginning in September 2004.

Radiology Corporation of America, Inc.

A judgment in the amount of $75,000 has been entered against the Company in Texas state court in favor of Radiology Corporation of America, Inc., a vendor to the Company. In satisfaction of the judgment the Company and the creditor have agreed that the judgment may be satisfied by five monthly payments of $15,000 each commencing March 10, 2004.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matter was submitted to a vote of the Company's stockholders, through the solicitation of proxies or otherwise, during the fourth quarter of fiscal year 2003.

PART II

ITEM 5. MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

In December 1993, the Company completed an initial public offering of 1,750,000 shares of common stock and 1,946,775 redeemable warrants (the "Redeemable

Warrants") to purchase common stock (the "Initial Public Offering"). Prior to the Initial Public Offering there was no public market for the Company's common stock. The Redeemable Warrants expired in December 1998. The Company's common stock is currently traded in the over-the-counter securities market, and quoted on the NASD's Electronic Bulletin Board under the symbol POSC. The Company's common stock and, prior to their expiration, the Redeemable Warrants, were previously traded on the NASDAQ SmallCap Market but were delisted in 1997 because the Company was unable to comply with various financial and compliance requirements for continued inclusion on the NASDAQ SmallCap Market. See "Item 1. Description of Business - Risks Associated with Business Activities."

The following range of the high and low reported closing sales prices for the Company's common stock for each quarter in 2003 and 2002, all as reported on the NASDAQ OTC Bulletin Board. These quotations reflect interdealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

	2003		2002	
	High	Low	High	Low
First Quarter	$0.01	$0.01	$0.11	$0.08
Second Quarter	$0.08	$0.01	$0.13	$0.05
Third Quarter	$0.20	$0.04	$0.13	$0.06
Fourth Quarter	$0.08	$0.03	$0.08	$0.01

There were approximately 260 shareholders of record of common stock as of March 18, 2004, including broker-dealers holding shares beneficially owned by their customers.

The Company has never paid cash dividends on its common stock. The Company does not intend to pay cash dividends on its common stock in the foreseeable future. The Series A Preferred Stock Statement of Designation prohibits the Company from paying any common stock dividends until all required dividends have been paid on the Series A Preferred Stock. As of December 31, 2003, approximately $345,000 of preferred stock dividends are undeclared and unpaid by the Company.

In consideration for the issuance by the Company's President and CEO, Gary H. Brooks, to the Company of a promissory note in the principal amount of $75,000, on October 30, 2002, the Company granted Gary H. Brooks warrants to purchase 500,000 shares of common stock, at an exercise price of $0.05 per share that are exercisable through October 31, 2007. The issuance of the warrants was exempt from the registration requirements of the Securities Act of 1933, as amended, pursuant to Section 4(2) thereof, since the issuance constituted a sale not involving a public offering.

The Company's equity plan information required by this item is set forth under Item 11 of Part III below.

ITEM 6.

MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

GENERAL

The Company was incorporated in December 1983 and commenced commercial operations in 1986. Since that time, the Company has generated revenues primarily from the sale and service contract revenues derived from the Company's POSICAM(TM) system, 13 of which are currently in operation in certain medical facilities in the United States and 7 are operating in international medical institutions. The Company has never been able to sell its POSICAM(TM) systems in sufficient quantities to achieve operating profitability.

In May 1998, the Company entered into a series of agreements (the "Imatron Transaction") with Imatron, a New Jersey corporation and technology-based company engaged principally in the business of designing, manufacturing and marketing a high performance computed tomography system, pursuant to which on January 22, 1999, Imatron acquired majority ownership of the Company. In conjunction with the execution of definitive agreements in May 1998, Imatron began making working capital advances available to the Company of up to $500,000 in order to enable the Company to meet a portion of its current obligations. The loan agreement was thereafter amended by oral agreement to increase the working capital advances available under the loan agreement up to an additional $100,000. As of December 31, 1998, the Company had borrowed $600,000 pursuant to those agreements. The loan bore interest at 1/2% over the prime rate and was secured by all of Positron's assets.

Pursuant to the agreement, Imatron acquired 9,000,000 shares of the Company's common stock on January 22, 1999, representing, at that time, a majority ownership of the outstanding common stock of the Company on a fully-diluted and as-if-converted basis, excluding out-of-the-money warrants and options determined at that time. In exchange, the Company received from Imatron (a) nominal cash; (b) an immediate loan of up to $500,000 in working capital to assist the Company in meeting then current financial obligations; (c) an agreement that Imatron would undertake all reasonable efforts to have its affiliate, Imatron Japan, Inc. assist the Company in the sale of 10 POSICAM(TM) systems over the next three years; (d) an agreement that Imatron would help facilitate the recapitalization of the Company to support its re-entry into the medical imaging market by using its best efforts to arrange for additional third-party equity financing for the Company over an eighteen-month period in an aggregate amount of not less than $8,000,000; and (e) a new management team selected by Imatron.

Consummation of the issuance of shares to Imatron was conditioned upon, among other things (a) the resignation of each officer of Positron, (b) the resignation of at least three of the four Positron directors and the appointment of Imatron's nominees to fill such vacancies, and (c) Positron shareholder approval of an amendment to Positron's Articles of Incorporation to increase its authorized common stock to 100,000,000 shares of common stock. All of those conditions were met, and the shares were issued on January 22, 1999. Through Imatron's efforts, private placements were concluded in August 1999 resulting in a net equity infusion of approximately $11.4 million to Positron.

As part of the consummation of the Imatron Transaction in January 1999, all of the Company's officers resigned and all directors, except for Gary B. Wood, resigned from the Board. S. Lewis Meyer was appointed as Chairman of the

Company's Board of Directors. Mr. Meyer is neither an employee nor an executive officer of the Company. Gary H. Brooks was also appointed to serve on the Company's Board of Directors. Additionally, Mr. Brooks was appointed as President, Secretary, and Acting Chief Financial Officer. The Company's shareholders approved an amendment to Positron's Articles of Incorporation to increase its authorized common stock to 100,000,000 shares.

The Company entered into a loan arrangement on June 29, 2001 with Imatron for the purpose of borrowing up to $2,000,000 to fund operating activities. This loan was collateralized by substantially all the assets of the Company. Interest was charged on the outstanding principal balance at an annual rate of 10% and was payable monthly. As of June 29, 2003 the principal balance of the loan was $2,000,000. Principal on the loan amounting to $1,000,000 and $500,000 was to be repaid within five (5) business days of December 31, 2001 and March 31, 2002, respectively. The remaining $500,000 of loan principal and all unpaid interest was due and payable no later than June 30, 2002.

In conjunction with the loan, the Company granted Imatron warrants to purchase 6,000,000 shares of common stock, at an exercise price of $.30 per share that were exercisable through June 30, 2006. The warrants issued to Imatron had an approximate value of $200,000 at the date of issue. Such cost was treated as a loan origination cost and amortized to expense over the twelve-month term of the note payable, using the effective interest method.

Imatron had previously acquired 9,000,000 shares of the Company's common stock on January 22, 1999. General Electric Company ("GE") acquired Imatron on December 19, 2001.

Effective June 29, 2003, the Company entered into a Technology Purchase Agreement to transfer its Cardiac PET Software to GE in exchange for cancellation of the indebtedness under this loan and the surrender of the 9,000,000 shares of common stock and the warrant to purchase 6,000,000 shares of common stock. The Company recognized a gain of $2,376,000 related to the sale of this technology. This gain resulted from the cancellation of the Company's obligation for $2,000,000 in principal and accrued interest of $376,000 under the loan. The Company's future commitment to provide assistance to GE for the purpose of fully utilizing and exploiting this technology, as well as the compensation for these services, were provided for in a separate service agreement discussed below.

As part of the transactions contemplated by the Technology Purchase Agreement, the Company entered into a Software License Agreement. Pursuant to terms of the Software License Agreement, the Company received an irrevocable license from GE to continue using, modifying, distributing and otherwise exploiting the Cardiac PET Software in perpetuity.

In conjunction with the Technology Purchase Agreement, the Company also entered into an Agreement for Services for the purpose of assisting GE in fully utilizing and exploiting the Cardiac PET Software. The Company agreed to provide services for a period of six quarters (eighteen months) for a fee of $50,000 per each 3-month period during the term of this agreement. GE committed to pay the fee for the first two quarters of $50,000 (total of $100,000) within two business days of July 29, 2003 and will make payment of any subsequent quarters in advance of such quarter. GE may terminate the Agreement for Services at any time after it has paid the fees for at least four quarters.

RESULTS OF OPERATIONS

The operations of the Company for the year ended December 31, 2003 resulted in net income of $892,000 compared to a net loss of $2,967,000 in 2002. The operating results in 2003 included a $2,376,000 gain on the sale of its Cardiac PET Software.

REVENUES. The Company generated $3,459,000 in revenues from the sale of three systems in the year ended December 31, 2003 compared to revenues of $3,319,000 from the sale of three systems in 2002. Revenues from service and components increased by $246,000 to $1,609,000 in 2003 compared to $1,363,000 in 2002, as a result of upgrades of several systems for customers in 2003.

COST OF SALES AND SERVICES. The Company incurred costs of $3,229,000 on the sale of three systems in 2003 compared to costs of $3,301,000 related to the sale of three systems in 2002. Service and component costs

inceased by $184,000 to $797,000 in 2003 from $613,000 in 2002. Operating results in 2002 included inventory write-downs of $180,000.

OPERATING EXPENSES. Selling, general and administrative expenses decreased $495,000 to $1,752,000 in 2003 from $2,247,000 in 2002. The $495,000 decrease in costs was primarily attributable to the reduction in charges for legal services provided in conjunction with the litigation involving ProFutures Capital Bridge Fund, L.P. The Company decreased research and development expenses by $365,000 to $671,000 in 2003 from $1,036,000 in 2002. The $365,000 decrease in costs primarily resulted from a reduction in personnel.

OTHER INCOME (EXPENSES). Interest expense decreased $221,000 to $103,000 in 2003 from $324,000 in 2002, primarily as a result of cancellation of the $2,000,000 note payable to a stockholder on June 29, 2003. The operating results in 2003 included a gain of $2,376,000 on the sale of its Cardiac PET Software. The Company recognized $50,000 in income in 2002 on the forfeiture of a purchase deposit on a system.

NET OPERATING LOSS CARRYFORWARDS

The Company has incurred losses since its inception and, therefore, has not been subject to federal income taxes. As of December 31, 2003, the Company had net operating loss ("NOL") carryforwards for income tax purposes of approximately $10,000,000, which expire in 2004 through 2022. Under the provisions of Section 382 of the Internal Revenue Code the greater than 50% ownership changes that occurred in the Company in connection with the Imatron Transaction and in connection with the private placement of the Company's common stock limited the Company's ability to utilize its NOL carryforward to reduce future taxable income and related tax liabilities.

LIQUIDITY AND CAPITAL RESERVES

Since its inception the Company has been unable to sell POSICAM(TM) systems in quantities sufficient to be operationally profitable. Consequently, the Company has sustained substantial losses. At December 31, 2003, the Company had an accumulated deficit of $56,775,000. Due to the sizable prices of the Company's systems and the limited number of systems sold or placed in service each year, the Company's revenues have fluctuated significantly year to year.

At December 31, 2003, the Company had cash and cash equivalents of $5,000 compared to $107,000 at December 31, 2002. The Company concluded a private placement in August 1999, which resulted in an equity infusion of approximately $11,400,000 net to the Company. In 2001, the Company received $2,000,000 in proceeds on a note payable to a stockholder secured by substantially all of the

Company's assets. In spite of the equity infusion and loan proceeds, the Company believes that it is possible that it may continue to experience operating losses and accumulate deficits in the foreseeable future. If we are unable to obtain financing to meet our cash needs we may have to severely limit or cease our business activities or may seek protection from our creditors under the bankruptcy laws.

The opinion of the Company's independent auditor for the year ended December 31, 2003, expressed substantial doubt as to the Company's ability to continue as a going concern. The Company will need to increase system sales to become profitable or obtain additional capital.

RELATED PARTY TRANSACTIONS

IMATRON TRANSACTION. In May 1998, the Company entered into an agreement (the "Imatron Transaction") with Imatron. Pursuant to the agreement, Imatron acquired 9,000,000 shares of the Company's common stock on January 22, 1999, representing at that time, a majority ownership of the outstanding common stock of the Company on a fully-diluted and as-if-converted basis, excluding out-of-the-money warrants and options determined at that time. In exchange, the Company received from Imatron (a) nominal cash; (b) an immediate loan of up to $500,000 in working capital to assist the Company in meeting then current financial obligations; (c) an agreement that Imatron would undertake all reasonable efforts to have its affiliate, Imatron Japan, Inc. assist the Company in the sale of 10 POSICAM(TM) systems over the next three years; (d) an agreement that Imatron would help facilitate the recapitalization of the Company to support its re-entry into the medical imaging market by using its best efforts to arrange for additional third-party equity financing for the Company over an eighteen-month period in an aggregate amount of not less than $8,000,000; and (e) a new management team selected by Imatron. During the year ended December 31, 2001, Imatron loaned the Company $2,000,000 (Note 7). On December 19, 2001, Imatron was acquired by General Electric Company. General Electric Company is a competing manufacturer of PET imaging systems.

Effective June 29, 2003, the Company entered into a Technology Purchase Agreement to transfer its Cardiac PET Software to GE in exchange for cancellation of the indebtedness under this loan and the surrender of the 9,000,000 shares of common stock and the warrant to purchase 6,000,000 shares of common stock. The Company recognized a gain of $2,376,000 related to the sale of this technology. This gain resulted from the cancellation of the Company's obligation for $2,000,000 in principal and accrued interest of $376,000 under the loan. The Company's future commitment to provide assistance to GE for the purpose of fully utilizing and exploiting this technology, as well as the compensation for these services, were provided for in a separate service agreement discussed below.

As part of the transactions contemplated by the Technology Purchase Agreement, the Company entered into a Software License Agreement. Pursuant to terms of the Software License Agreement, the Company received an irrevocable license from GE to continue using, modifying, distributing and otherwise exploiting the Cardiac PET Software in perpetuity.

In conjunction with the Technology Purchase Agreement, the Company also entered into an Agreement for Services for the purpose of assisting GE in fully utilizing and exploiting the Cardiac PET Software. The Company agreed to

provide services for a period of six quarters (eighteen months) for a fee of $50,000 per each 3-month period during the term of this agreement. GE committed to pay the fee for the first two quarters of $50,000 (total of $100,000) within two business days of July 29, 2003 and will make payment of any subsequent quarters in advance of such quarter. GE may terminate the Agreement for Services at any time after it has paid the fees for at least four quarters.

PROMISSORY NOTES. The Company was involved in two separate loan arrangements during 2002 for the purpose of obtaining operating funds on a short-term basis. On October 30, 2002, the Company received a promissory note in the principal amount of $75,000 from its President & CEO. On November 4, 2002, the Company received a promissory note in the principal amount of $25,000 from a stockholder. These promissory notes were unsecured, bore interest at 7% per annum, and the principal and accrued interest was due and payable on demand, on not less than five calendar days' written notice, but in no event later than November 30, 2002. Both promissory notes were repaid in full in November of 2002.

In conjunction with the promissory note for $75,000, the Company granted its President & CEO warrants to purchase 500,000 shares of common stock, at an exercise price of $0.05 per share that are exercisable through October 31, 2007. The warrants had an approximate value of $14,000 at the date of issue. Such cost is treated as a loan origination cost and was amortized to expense in 2002 over the term of the note, using the effective interest method.

NEW ACCOUNTING PRONOUNCEMENTS

In April 2003, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities", which amends and clarifies accounting and reporting for derivative instruments, including certain derivative instruments embedded in other contracts (collectively referred to as derivatives) and for hedging activities under FASB Statement No. 133, Accounting for Derivative Instruments and Hedging Activities. The changes in this Statement improve financial reporting by requiring that contracts with comparable characteristics be accounted for similarly, and will result in more consistent reporting of contracts as either derivatives or hybrid instruments. The implementation of SFAS No. 149 did not impact the Company's financial position or results of operations.

In May 2003, The FASB issued SFAS No. 150, "Accounting for Certain Financial instruments with Characteristics of both Liabilities and Equity", which establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. It requires the issuer to classify a financial instrument that is within its scope as a liability (or an asset in some circumstances). Many of those instruments were previously classified as equity. The implementation of SFAS No. 150 did not impact the Company's financial position or results of operations.

In December 2003, the FASB issued Interpretation No. 46R, "Consolidation of Variable Interest Entities" (FIN No. 46R), which addresses consolidation by business enterprises of variable interest entities. FIN No. 46R clarifies the application of Accounting Research Bulletin No. 51, Consolidated Financial Statements, to certain entities in which equity investors do not have the characteristics of a controlling financial interest, the equity investors have voting rights that are not proportionate to their economic interests or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN No. 46R applies to small business issuers no later than the end of the first reporting period after December, 2004. The Company plans to early adopt the provisions of FIN No. 46R in the first quarter of 2004. As of December 31, 2003, the Company did not have any variable interest entities that must be consolidated.

CRITICAL ACCOUNTING POLICIES

In response to the Securities and Exchange Commission's Release No. 33-8040, "Cautionary Advice Regarding Disclosure About Critical Accounting Policies," we have identified critical accounting policies based upon the significance of the accounting policy to our overall financial statement presentation, as well as the complexity of the accounting policy and our use of estimates and subjective assessments. We have concluded our critical accounting policies are as follows:

INVENTORY

Inventories are stated at the lower of cost or market and include material, labor and overhead. Cost is determined using the first-in, first-out (FIFO) method of inventory valuation.

REVENUE RECOGNITION

Revenues from POSICAM(TM) system contracts are recognized when all significant costs have been incurred and the system has been shipped to the customer. Revenues from maintenance contracts are recognized over the term of the contract. Service revenues are recognized upon performance of the services.

INFORMATION REGARDING AND FACTORS AFFECTING FORWARD LOOKING STATEMENTS

The Company is including the following cautionary statement in this Annual Report on Form 10-KSB to make applicable and take advantage of the safe harbor provision of the Private Securities Litigation Reform Act of 1995 for any forward looking statements made by, or on behalf of the Company. Forward looking statements include statements concerning plans, objectives, goals, strategies, future events or performance and underlying assumptions and other statements which are other than statements of historical facts. Certain statements contained herein are forward looking statements and, accordingly, involve risks and uncertainties which could cause actual results or outcomes to differ materially from those expressed in the forward looking statements.

The Company's expectations, beliefs and projections are expressed in good faith and are believed by the Company to have a reasonable basis, including without limitations, management's examination of historical operating trends, data contained in the Company's records and other data available from third parties, but there can be no assurance that management's expectations, beliefs or projections will result or be achieved or accomplished. In addition to other factors and matters discussed elsewhere herein, the following are important factors that, in the view of the Company, could cause actual results to differ materially from those discussed in the forward looking statements: the ability of the Company to attain widespread market acceptance of its POSICAM(TM) systems; the ability of the Company to obtain acceptable forms and amounts of financing to fund future operations; demand for the Company's services; and competitive factors. The Company disclaims any obligation to update any forward looking statements to reflect events or circumstances after the date hereof.

ITEM 7. FINANCIAL STATEMENTS

The required Financial Statements and the notes thereto are contained in a separate section of this report beginning with the page following the signature page.

ITEM 8. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Ham, Langston & Brezina, L.L.P. has been the Company's principal independent accountants since 1997. No disagreements exist between the Company and Ham, Langston & Brezina, L.L.P. on any matters of accounting principles or practices, financial statement disclosure, or auditing scope or procedure.

ITEM 8A. CONTROLS AND PROCEDURES

As of December 31, 2003, the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e) and Rule 15d-15(e)). Based upon that evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective at a reasonable level in timely alerting them to material information relating to the Company that is required to be included in the Company's periodic filings with the Securities and Exchange Commission. There have been no changes in the Company's internal controls over financial reporting that occurred during the Company's most recent fiscal quarter that has materially affected or is reasonably likely to materially affect, the Company's internal control over financial reporting.

The Company's management, including the Chief Executive Officer and Chief Financial Officer, do not expect that the Company's disclosure controls or internal controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met due to numerous factors, ranging from errors to conscious acts of an individual, or individuals acting together. In addition, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in a cost-effective control system, misstatements due to error and/or fraud may occur and not be detected.

PART III

ITEM 9. DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS; COMPLIANCE WITH SECTION 16(A) OF THE EXCHANGE ACT

DIRECTORS AND EXECUTIVE OFFICERS

The directors, executive officers and key employees of the Company as of March 18, 2004 consist of the following individuals:

NAME	AGE	POSITION

Gary H. Brooks	55	Director, President, Chief Executive Officer, Chief Financial Offier and Secretary (appointed CEO effective February 1, 2002)
Sachio Okamura	51	Director (appointed April 1, 2001)
Mario Leite Silva	31	Director (appointed May 10, 2002)

Gary H. Brooks has served as a director since January 22, 1999, on which date he was also appointed as President, Secretary and Acting Chief Financial Officer of the Company. In February 2002, Mr. Brooks was appointed Chief Executive Officer of the Company. Prior to joining the Company on a full-time basis, Mr. Brooks served as Vice President of Finance and Administration, Chief Financial Officer and Secretary for Imatron since December 1993. Prior to joining Imatron, he was Chief Financial Officer and Director for five years at Avocet, a privately-held sports electronics manufacturer located in Palo Alto, California. Mr. Brooks received his B.A. in Zoology in 1971 from the University of California, Berkeley, and an M.B.A. in Finance and Accounting in 1973 from the University of California, Los Angeles.

Mario Filipe Moreira Leite da Silva was appointed as a Director of Positron Corporation in May of 2002. Mr. da Silva currently holds the positron of Director of Financim - Financiamentos Molbil rios, S.G.P.S., S.A. From May 2001 to April 2002, he served as Finance and Organization Director for Imediata Group. Mr. da Silva served as Controller/Finance Director with Grundig from October 1999 to May 2001. From July 1998 to September 1999, he was Team Manager for the auditing department at Price Waterhouse Coopers. From October 1996 to June 1998, Mr. da Silva served as a finance auditor and economic consultant for Price Waterhouse. Mr. da Silva began his professional career with BNC - Banco Nacional de Cr dito Imobili rio from September 1995 to October 1996. Mr. da Silva received and Degree in Economy from the Faculty of Economy, Porto University, and a Masters Degree in Entrepreneurial Sciences, Speciality in Finance from the Faculty of Economy, Porto University.

Sachio Okamura has served as a director since his appointment to the Board of the Company on April 1, 2001. Mr. Okamura has performed bio-medial consulting services for Okamura Associates, Inc. from 1993 through the present date. These consulting services have included regulatory, distribution, licensing, joint venture, investment, merger and acquisition activities involving businesses in the United States and Japan. Mr. Okamura was in charge of bio-medical business development for various offices of Mitsubishi Corporation from 1978 through 1993. Mr. Okamura received a BS in Biochemistry in 1975 from the University of California, Davis and a Master of International Business fro the American Graduate School of International Management in 1978.

S. Lewis Meyer, former Chairman of the Board, resigned as a director on March 3, 2003.

Michael L. Golden served as Chief Financial Officer until his resignation on May 15, 2003.

Ross K. Hartz served as Vice President of Engineering until his death on March 14, 2004.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires the Company's executive officers and directors, and persons who own more than 10% of the Company's Common Stock to file reports of ownership on Form 3 and changes in ownership on Form 4 or Form 5 with the Securities and Exchange Commission (the "SEC"). Such executive officers, directors and 10% stockholders are also required by SEC rules to furnish the Company with copies of all Section 16(a) forms they file. Based solely upon its review of copies of such forms received by it, or on written representations from certain reporting persons that no Forms 5 were required for those persons, the Company believes that following reports of Forms 3 and 4 were not timely filed: Gary H. Brooks filed late two Forms 4s reporting a total of two transactions; and General Electric Co. filed late one Form 4 reporting one transaction.

CODE OF ETHICS

The Board of Directors has adopted a Code of Business Conduct and Ethics that applies to all of our employees, officers and directors, and a Code of Ethics for Chief Executive Officers and Senior Financial Officers. Copies of these codes are attached as an exhibit to this report.

AUDIT COMMITTEE

The Company's full Board of Directors acts as the Company's audit committee. The Board has determined that Mario Leite Silva is an "audit committee financial expert" as defined in Item 401(e) of Regulation S-B.

ITEM 10. EXECUTIVE COMPENSATION

The following tables set forth certain information with respect to compensation paid by the Company and certain information regarding stock options issued to certain of the individuals who have acted as executive officers of the Company during 2003, 2002 and 2001.

SUMMARY COMPENSATION TABLE

Name and Principal Position	Fiscal Year	Salary ($)	(a)	Bonus(a)	Other Annual Compensation	Restricted Stock Awards	Optio SAR
Gary H. Brooks,	2003	$ 216,000		--	--	--	500
President, Chief	2002	$ 223,000		--	--	--	
Executive Officer and Secretary	2001	$ 211,000		--	--	--	
Wayne E. Webster(c)							
Vice President	2002	$ 217,000		--	--	--	
Marketing, Sales, & Service	2001	$ 157,000		--	--	--	1,460

Ross K. Hartz(d)	2003	$ 78,000	--	$ 37,471	--	300
Vice President	2002	$ 143,000	$ 23,000	--	--	
of Engineering	2001	$ 156,685	--	--	--	
Michael L. Golden(e)	2003	$ 40,000	--	--	--	
Chief Financial Officer	2002	$ 99,000	--	--	--	
	2001	$ 94,000	--	--	--	

(a) Amounts shown include cash compensation earned with respect to the year shown above.

(b) Represents the Company's matching contributions to its 401(k) plan.

(c) Wayne E. Webster served as an officer of the Company through December 31, 2002.

(d) Ross K. Hartz received $37,471 in disability payments in 2003 related to a prolonged illness.

(e) Michael L. Golden served as an officer of the Company through May 15, 2003.

OPTION GRANTS IN LAST FISCAL YEAR

The following table sets forth certain information with respect to stock options granted to each of the Company's Chief Executive Officer and the four other highest paid executive officers (the "Named Executive Officers") during the fiscal year ended December 31, 2003. In accordance with the rules of the Securities and Exchange Commission, also shown below is the potential realizable value over the term of the option (the period from the grant date to the expiration date) based on assumed rates of stock appreciation of 5% and 10%, compounded annually. These amounts are based on certain assumed rates of appreciation and do not represent the Company's estimate of future stock price. Actual gains, if any, on stock option exercises will be dependent on the future performance of the Common Stock.

NAME	NUMBER OF SHARES UNDERLYING OPTIONS GRANTED (1)	% OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN FISCAL YEAR (2)	EXERCISE PRICE PER SHARE	EXPIRATION DATE	POTENTIAL REALIZABLE VALUE ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM (3) 5%	10%
Gary H. Brooks	500,000	26.95%	$ 0.05	04/30/13	$ -	$ -
Ross K. Hartz	300,000	16.17%	$ 0.05	04/30/13	$ -	$ -