IsoRay, Inc.
Form POS AM
October 24, 2006

As filed with the Securities and Exchange Commission on October 24, 2006
Registration Statement No. 333-129646

SECURITIES AND EXCHANGE COMMISSION

POST-EFFECTIVE
AMENDMENT NO. 3 TO
FORM SB-2
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ISORAY, INC.
(Name of Small Business Issuer in its Charter)

Minnesota	**3841**	**41-1458152**
(State of Incorporation)	**(Primary Standard Industrial Classification Code Number)**	**(IRS Employer ID No.)**

350 Hills Street, Suite 106
Richland, WA 99354
(509) 375-1202
(Address and Telephone Number of Principal Executive Offices and Principal Place of Business)

Roger Girard, CEO
350 Hills Street, Suite 106
Richland, WA 99354
(509) 375-1202
(Name, Address and Telephone Number of Agent for Service)

Copies of communications to:

Stephen R. Boatwright, Esq.
Alicia M. Corbett, Esq.
Keller Rohrback, PLC
3101 North Central Avenue, Suite 900

Phoenix, Arizona 85012
(602) 248-0088
Facsimile Number: (602) 248-2822

Approximate date of commencement of proposed sale to the public: From time to time.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act of 1933, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

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

CALCULATION OF REGISTRATION FEE

Title Of Each Class Of Securities To Be Registered	Amount To Be Registered [1]	Proposed Maximum Offering Price Per Unit	Proposed Maximum Aggregate Offering Price	Amount Of Registration Fee
Common stock, $0.001 par value, issuable upon conversion of preferred stock	43,219	$ 5.38[2]	$ 232,518	$ 24.88[3]
Common stock, $0.001 par value, issuable upon exercise of stock options	218,454	$ 5.38[2]	$ 1,175,283	$ 125.76[3]
Common stock, $0.001 par value	4,004,264	$ 5.45[4]	$ 21,823,238	$ 2334.87[3]
Common stock, $0.001 par value, issuable upon exercise of warrants	371,163	$ 5.38[2]	$ 1,996,857	$ 213.66[3]
Total	4,637,100		$ 25,227,896	$ 2699.17[3]

[1] Includes shares of our common stock, par value $0.001 per share, which may be offered pursuant to this registration statement, a portion of which shares are issuable upon conversion of preferred stock and convertible debentures and exercise of warrants and stock options held by the selling shareholders. In addition to the shares set forth in the table, the amount to be registered includes an indeterminate number of shares, including those issuable upon conversion of the preferred stock and convertible debentures and exercise of the warrants and stock options, as such number may be adjusted as a result of stock splits, stock dividends and similar transactions in accordance with Rule 416.

[2] Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, as amended, based upon the average of the bid and asked prices of the Registrant's common stock on November 7, 2005.

[3] Previously paid.

[4] Represents a combination of (2) and (5).

(5) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, as amended, based upon the average of the bid and asked prices of the Registrant's common stock on March 20, 2006.

EXPLANATORY NOTE

This Post-Effective Amendment No. 3 to our Form SB-2 Registration Statement is being filed to remove 37,837 shares of common stock and make certain changes to update disclosures contained herein. Only sections of the Registration Statement that were changed are being filed. The remainder of the Registration Statement has not changed and remains as filed in our Post-Effective Amendment No. 2 on October 13, 2006.

Preliminary Prospectus, Subject to Completion, dated October 24, 2006

ISORAY, INC.
4,637,100 Shares
Common Stock

This prospectus relates to the sale by the selling shareholders of up to 4,637,100 shares of our common stock, $0.001 par value. The 4,637,100 shares being registered consist of the following: up to 4,004,264 shares of common stock, up to 43,219 shares of common stock underlying our convertible preferred stock (including up to 6,967 shares of common stock issuable upon conversion of preferred stock following the exercise of warrants to acquire our preferred stock), up to 371,163 shares of common stock underlying warrants to purchase common stock and up to 218,454 shares of common stock underlying options to purchase common stock, all currently held by the selling shareholders. The preferred stock is convertible into our common stock at one (1) share of common stock for each preferred share converted, the warrants are exercisable at prices ranging from $0.70 to $4.15 (excluding a warrant issued at an exercise price of $10.00 for 12,500 shares of common stock) with expiration dates ranging from March 26, 2007 to May 10, 2008 and the options are exercisable at prices ranging from $1.19 to $2.00 per share with expiration in July of 2015.

The prices at which the selling shareholders may sell shares will be determined by the prevailing market price for the shares or in negotiated transactions. We will not receive any proceeds from the sale of our shares by the selling shareholders. The selling shareholders may be deemed underwriters of the shares of common stock which they are offering. We will pay the expenses of registering these shares.

Our common stock is listed on the OTC Bulletin Board under the symbol "ISRY.OB." On October 19, 2006, the closing price of our common stock was $3.24 per share.

No underwriter or other person has been engaged to facilitate the sale of shares of common stock in this offering.

INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE "RISK FACTORS" BEGINNING ON PAGE 4.

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

The date of this prospectus is October 24, 2006.

350 Hills Street, Suite 106
Richland, WA 99354
(509) 375-1202

TABLE OF CONTENTS

PROSPECTUS SUMMARY	**1**
RISK FACTORS	**4**
DESCRIPTION OF BUSINESS	**12**
SELLING SHAREHOLDERS	**30**

ABOUT THIS PROSPECTUS

You should rely only on the information contained in this prospectus. We have not, and the selling shareholders have not, authorized anyone to provide you with information that is different from that contained in this prospectus. The selling shareholders are offering to sell shares of common stock and seeking offers to buy shares of common stock only in jurisdictions where offers and sales are permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Except as otherwise indicated, market data and industry statistics used throughout this prospectus are based on independent industry publications and other publicly available information. Although we believe that these data and statistics are reasonable and sound, they have been prepared on the basis of underlying data to which we do not have access, and which we cannot independently verify.

For definitions of many of the technical terms used throughout this prospectus, see page 2.

PROSPECTUS SUMMARY

The following summary highlights selected information contained in this prospectus. This summary does not contain all the information you should consider before investing in our common stock. Before making an investment decision, you should read the entire prospectus carefully, including the "RISK FACTORS" section, the financial statements and the notes to the financial statements. As used throughout this prospectus, the terms "IsoRay," the "Company," "we," "us" and "our" refer to IsoRay, Inc.

Our Business

We are a medical technology company focusing on innovative treatments for prostate cancer and other solid cancer tumors, with a goal of improved patient outcomes. Our wholly-owned subsidiary, IsoRay Medical, Inc., a Delaware corporation ("Medical"), began selling its initial product, the Food and Drug Administration approved IsoRay Cesium-131 brachytherapy seed (the "IsoRay ^{131}Cs seed"), in October 2004 for the treatment of prostate cancer. Cesium-131 or ^{131}Cs is an isotope of the element Cesium that gives off low energy, “soft” x-rays as it decays killing diseased tissue by irradiating it where it is placed. Brachytherapy seeds allow physicians to place ^{131}Cs or another radioactive isotope within the body to kill cancerous tissue. Our management believes that the clinical benefits of Cesium-131 will enable us to capture market share within the existing brachytherapy market, which uses the radioactive isotopes Palladium-103 and Iodine-125.

Our Corporate History

We were incorporated under Minnesota law in 1983. Since 1998 and until our merger with Medical, we had no significant operations. On July 28, 2005, our subsidiary, Century Park Transitory Subsidiary, Inc. merged into IsoRay Medical, Inc., making Medical our wholly-owned subsidiary.

Medical was formed under Delaware law on June 15, 2004 and merged with IsoRay Products LLC and IsoRay, Inc., each formed under Washington law, on October 1, 2004. The first IsoRay company was originally organized in 1998 as a Washington limited liability company, IsoRay, LLC, to develop a medical device using the Cesium-131 seed technology and later transferred its operations to IsoRay, Inc. on May 1, 2002. IsoRay Products LLC was formed in September 2003 to raise capital to fund the operations of IsoRay, Inc. Both IsoRay, Inc. and IsoRay Products LLC merged with IsoRay Medical, Inc. on October 1, 2004.

Our independent auditors have expressed doubt about our ability to continue as a going concern due to ongoing operating losses, which our management expects to continue for the foreseeable future. Because our revenues from

sales of our ^{131}Cs seed are insufficient to find our operations at this time, we will need to obtain financing or grow our revenues in the near future to continue our operations. Management expects our independent auditors will continue to express doubt about our ability to continue as a going concern for the foreseeable future.

1

Our principal office is located at 350 Hills Street, Suite 106, Richland, Washington 99354. Our general office phone number is (509) 375-1202. Our website is www.isoray.com. Information on our website is not part of this prospectus.

The Offering

Common Stock Offered	4,637,100 shares by selling shareholders
Offering Price	Market price or negotiated price
Common Stock Outstanding Before the Offering	15,853,852 shares as of September 30, 2006
Use of Proceeds	We will not receive any proceeds from the resale of the shares offered hereby, all of which proceeds will be paid to the selling shareholders.
Risk Factors	The purchase of our common stock involves a high degree of risk. You should carefully review and consider the "RISK FACTORS" section beginning on page 4.
OTC Bulletin Board Symbol	ISRY.OB

Certain Defined Terms

The technical terms defined below are important to understand as they are used throughout this prospectus. When used in this prospectus, unless the context requires otherwise:

"Brachytherapy" refers to the process of placing therapeutic radiation sources in, or near, diseased tissue. Brachytherapy is derived from a Greek term meaning "short distance" therapy.

"Cesium-131", "^{131}Cs" or **"Cs-131"** is an isotope of the element Cesium that gives off low energy, "soft" x-rays as it decays. Cesium-131 decays to 50% of its original activity every 9.7 days, becoming essentially inert after 100 days.

"EBRT" (external beam radiation therapy) is the external treatment of prostate cancer using an x-ray-like machine that targets a beam of radiation at the cancer site. The treatment damages genetic material within the cancer cells, which prevents the cells from growing and the affected cells eventually die. Treatments are generally performed at an outpatient center five days a week for seven or eight weeks.

"Half-life" means the time required for a radioisotope to decay to one-half of its previous activity. The amount of radiation emitted thus decreases to 25% of original activity in two half-lives, 12.5% in three half-lives, and so on.

"Isotope" refers to atoms of the same element that have different atomic masses. The word "isotope" means "same place," referring to the fact that isotopes of a given element have the same atomic number and hence occupy the same place in the Periodic Table of the Elements. Thus, they are very similar in their chemical behavior.

^{131}Cs seed" is the name by which IsoRay's first product, the Cesium-131-based brachytherapy seed, is currently known.

"Pure-beta particle emitter" is a radioisotope whose only emissions during radioactive decay are beta particles (electrons). Beta particles can travel several millimeters in tissue.

"RP" (radical prostatectomy or prostatectomy) is the complete surgical removal of the prostate, under significant anesthesia. Two main types of surgery have evolved: nerve-sparing and non nerve-sparing. The nerve-sparing surgery is designed to minimize damage to the nerves that control penile erection.

"Radiobiologic" is characteristic of the effects of radiation on organisms or tissues, most commonly the effectiveness of therapeutic radiation in interrupting cell growth and replication.

"Radioisotope" is a natural or man-made isotope of an element that spontaneously decays while emitting ionizing radiation.

"Seed" is a common term for small radiation sources consisting of a radioisotope sealed within a biocompatible capsule such as gold or titanium, suitable for temporary or permanent brachytherapy implantation.

"Therapeutic radiation" refers to ionizing radiation with sufficient energy to disrupt basic biological processes of cells.

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below and the other information in this prospectus and any other filings we may make with the United States Securities and Exchange Commission in the future before investing in our common stock. There may also be risks of which were are currently unaware, or that we currently regard as immaterial based on the information available to us that later prove to be material. If any of these risks occur, our business, operating results and financial condition could be seriously harmed, the trading price of our common stock could decline, and you could lose some or all of your investment.

Risks Related To Our Business

Our Independent Accountants Have Expressed Doubt About Our Ability To Continue As A Going Concern. IsoRay, Inc. ("IsoRay" or the "Company") has generated material operating losses since inception. We expect to continue to experience net operating losses. Our ability to continue as a going concern is subject to our ability to obtain necessary funding from outside sources, including obtaining additional funding from the sale of our securities or obtaining loans and grants from various financial institutions where possible. The substantial doubt expressed by our auditors about our ability to continue as a going concern increases the difficulty in meeting such goals. We began generating revenue in October 2004 and in the early stages of marketing our IsoRay ^{131}Cs seed. We have limited historical, operating or financial information upon which to evaluate our performance. There can be no assurance that the Company will attain profitability.

Our Revenues Depend Upon One Product. Until such time as we develop additional products, our revenues depend upon the successful production, marketing, and sales of the IsoRay ^{131}Cs seed. The rate and level of market acceptance of this product may vary depending on the perception by physicians and other members of the healthcare community of its safety and efficacy as compared to that of competing products, if any; the clinical outcomes of the patients treated; the effectiveness of our sales and marketing efforts in the United States and Europe; any unfavorable publicity concerning our product or similar products; our product's price relative to other products or competing treatments; any decrease in current reimbursement rates from the Centers for Medicare and Medicaid Services or third-party payers; regulatory developments related to the manufacture or continued use of the product; availability of sufficient supplies of enriched barium for ^{131}Cs seed production; ability to produce sufficient quantities of this product; and the ability of physicians to properly utilize the device and avoid excessive levels of radiation to patients. Because of our reliance on this product as the sole source of our revenue, any material adverse developments with respect to the commercialization of this product may cause us to continue to incur losses rather than profits in the future.

Although Approved To Treat Any Malignant Tissue, Our Sole Product Is Currently Used To Treat One Type Of Cancer. As of the date of this Prospectus, the IsoRay ^{131}Cs seed is used exclusively for the treatment of prostate cancer. We believe the ^{131}Cs seed will be used to treat cancers of other sites as well, as is currently the case with our competitors'^{125}I and ^{103}Pd seeds. However, we believe that clinical data gathered by select groups of physicians under treatment protocols specific to other organs will be needed prior to widespread acceptance of our product for treating other cancer sites. If our current and future products do not become accepted in treating cancers of other sites, our sales will depend solely on treatment of prostate cancer and we will require ever increasing market share to increase revenues.

We Have Limited Data On The Clinical Performance Of ^{131}Cs. As of September 1, 2006, the IsoRay ^{131}Cs seed had been implanted in over 500 patients. While this number of patients may prevent us from drawing statistically significant conclusions, the side effects experienced by these patients were less severe than side effects observed in seed brachytherapy with ^{125}I and ^{103}Pd and in other forms of treatment such as radical prostatectomy These early

results indicate that the onset of side effects generally occurs between one and three weeks post-implant, and the side effects are resolved between five and eight weeks post-implant, indicating that, at least for these initial patients, side effects resolved more quickly than the side effects that occur with competing seeds or with other forms of treatment. These limited findings support management's belief that the ^{131}Cs seed will result in less severe side effects than competing treatments, but we may have to gather data on outcomes from additional patients before we can establish statistically valid conclusions regarding the incidence of side effects from our seeds.

We Will Need To Raise Additional Capital. The hiring of upper level executives and increasing production requirements significantly increased IsoRay's monthly cash requirements since August 2005. Monthly operating cash requirements as of September 1, 2006 were approximately $800,000, excluding capitalized items. Capital expenditures typically include the purchase or capital lease of equipment, with a life-expectancy of more than 12 months, costing in excess of $2,500, which would include among other things: analytical systems, improved packaging for final products and, new production systems which increase manufacturing throughput. Ongoing requirements to meet greater payroll obligations coupled with legal and accounting fees associated with our public reporting status have resulted in greater amounts of short-term cash demands. We will need to continue to raise capital.

We will also need substantial funds to complete the development, manufacturing, and marketing of our current and future products. Consequently, we will seek to raise additional capital through not only public and private offerings of equity and debt securities, but also collaborative arrangements, strategic alliances, or from other sources. We will need to raise at least $3.2 million of additional capital to fund working capital needs through the end of fiscal year 2007. We currently have a manufacturing and production facility located in Richland, Washington that management believes will provide adequate space to manufacture the ^{131}Cs seed product for the prostate and other organ cancer markets until late 2007.

We may be unable to raise additional capital on commercially acceptable terms, if at all, and if we raise capital through additional equity financing, existing shareholders may have their ownership interests diluted. Our failure to be able to generate adequate funds from operations or from additional sources would harm our business.

The Passage Of Initiative 297 In Washington May Result In The Relocation Of Our Manufacturing Operations. Washington voters approved Initiative 297 in late 2004, which may impose restrictions on sites at which mixed radioactive and hazardous wastes are generated and stored. IsoRay has been assured by the Attorney General's office of the State of Washington that medical isotopes are not included in Initiative 297 and that manufacturing in IsoRay's new production facility would not be interrupted, but there is no assurance that this interpretation of Initiative 297 by the Attorney General's Office will continue to exclude medical isotopes. In June 2006, a U.S. District Court judge ruled that Initiative 297 was unconstitutional in its entirety. However, the State of Washington has indicated that it may appeal the decision. If this decision is overturned and Initiative 297 is enforced it could impact our ability to manufacture our seeds in the State of Washington.

Management believes that we will be able to continue our manufacturing operations in the State of Washington for the foreseeable future. In the event Initiative 297 is enforced against us, management may consider establishing an alternate manufacturing facility outside of Washington, and we may consider moving all or part of our operations to another state even if Initiative 297 is not enforced against us.

We Have Limited Manufacturing Experience And May Not Be Able To Meet Demand. The existing management team and staff of IsoRay have experience primarily in research and development of products and our experience in commercial-scale manufacturing is limited. We began commercial production of the ^{131}Cs seed in the fourth quarter of 2004. Although our management team has significant radiochemistry experience, there is a possibility that production demands may result in challenges that may be too difficult or expensive to overcome. We have developed and deployed semi-automated laser welding equipment that can produce seeds faster than fully-automated equipment the Company has reviewed that would cost several million dollars to design and fabricate. We believe we will continually find more efficient means of welding the titanium seeds; however, there is a possibility that future demand will outstrip our ability to produce seeds using the semi-automated process. With our new facility, our management believes that we will be able to meet future demand unless demand greatly exceeds management's current projections, which management does not believe will occur. We have relocated to a manufacturing and production facility located in Richland, Washington that management believes will provide adequate space to manufacture ^{131}Cs seed product for the prostate and other organ cancer markets until late 2007.

Sales And Marketing Experience. Our sales and marketing team has extensive experience in successfully establishing and training domestic and international sales forces as well as successfully introducing new medical devices to the market, but we have limited specific experience with commercial sales and marketing of the Cesium-131 radioisotope. We have employed marketing professionals with extensive experience selling medical devices, including radioisotopes for large, international companies. Our initial marketing activities have been targeted to a limited number of physicians and treatment centers, and we will need to recruit additional employees to assist in expanding our customer base. We have developed in-house customer service, order entry, shipping, billing, and sales support. In addition, the Company engaged a nationally recognized reimbursement specialist, Kathy Francisco, of the Pinnacle Health Group, with over 25 years of healthcare reimbursement experience, to assist with reimbursement questions and to provide reimbursement guidelines and appropriate insurance coding numbers needed to obtain reimbursement for seed costs and the implant procedure by our customers. Although this group and other consultants continue to be available to support the Company in its reimbursement and marketing programs, we cannot be certain that our products will be marketed and distributed in accordance with our expectations or that our market research will be accurate. We also cannot be certain that we will be able to develop our own sales and marketing capabilities to the extent anticipated by management. We may choose to add third-party distribution channels, but we may not be able to maintain satisfactory arrangements with the third parties upon whom we rely.

We Are Subject To The Risk That Certain Third Parties May Mishandle Our Product. We rely on third parties, such as Federal Express, to deliver our ^{131}Cs seed, and on other third parties, including various radiopharmacies, to package our ^{131}Cs seed in certain specialized packaging forms that, as of the date of this Prospectus, we do not provide at our own facilities. We are subject to the risk that these third parties may mishandle our product, which could result in adverse effects, particularly given the radioactive nature of our product. As an example, on January 5, 2006, we were notified by one of our primary customers, Chicago Prostate Cancer Center ("CPCC"), that it would no longer accept ^{131}Cs products from the radiopharmacy exclusively used by us at that time due to quality control concerns. The role of the radiopharmacy is to provide third-party assay, preloading, and sterilization of the ^{131}Cs seeds which are then shipped directly to customers for use in patient implants. We immediately began working to bring these functions in house. On March 28, 2006, CPCC resumed ordering from us. Initial shipments of ^{131}Cs seeds, custom-loaded to this customer's specifications, met the quality control guidelines established by CPCC.

Our Operating Results Will Be Subject To Significant Fluctuations. Our quarterly revenues, expenses, and operating results are likely to fluctuate significantly in the future. Fluctuation may result from a variety of factors, which are discussed in detail throughout this "RISK FACTORS" section, including:

- our achievement of product development objectives and milestones;
- demand and pricing for the Company's products;
- effects of aggressive competitors;
- hospital, clinic and physician buying decisions;
- research and development and manufacturing expenses;
- patient outcomes from our therapy;
- physician acceptance of our products;
- government or private healthcare reimbursement policies;
- our manufacturing performance and capacity;
- incidents, if any, that could cause temporary shutdown of our manufacturing facilities;
- the amount and timing of sales orders;
- rate and success of future product approvals;
- timing of FDA clearance, if any, of competitive products and the rate of market penetration of competing products;
- seasonality of purchasing behavior in our market;
- overall economic conditions; and
- the successful introduction or market penetration of alternative therapies.

We Rely Heavily On A Limited Number Of Suppliers. Some materials used in our products are currently available only from a limited number of suppliers. For example, virtually all titanium tubing used in brachytherapy seed manufacture comes from a single source, Accellent Corporation. We currently obtain a key component of our seed core from a single supplier. We do not have formal written agreements with either this key supplier or with Accellent Corporation. Any interruption or delay in the supply of materials required to produce our products could harm our business if we were unable to obtain an alternative supplier or substitute equivalent materials in a cost-effective and timely manner. Over fifty percent (50%) of our barium is now supplied through the Institute of Nuclear Materials located in the former Soviet Union. This percentage will continue to increase as demand for our products increases. Failure to obtain deliveries of barium from this source would have a material adverse effect on seed production and there may be a delay before we could locate an alternative supplier. Additional factors that could cause interruptions or delays in our source of materials include limitations on the availability of raw materials or manufacturing performance experienced by our suppliers and a breakdown in our commercial relations with one or more suppliers. Some of these factors may be completely out of our control and our suppliers' control.

Future Production Increases Will Depend on Our Ability to Acquire Larger Quantities of ^{131}Cs and Hire More Employees. IsoRay currently obtains ^{131}Cs through reactor irradiation of natural barium and subsequent separation of cesium from the irradiated barium targets. The amount of ^{131}Cs that can be produced from a given reactor source is limited by the power level and volume available within the reactor for irradiating targets. This limitation can be overcome by utilizing barium feedstock that is enriched in the stable isotope ^{130}Ba. However, the number of suppliers of enriched barium is limited and they may be unable to produce this material in sufficient quantities at a reasonable price.

IsoRay has entered into an exclusive agreement with the Institute of Nuclear Materials in the former Soviet Union to provide irradiated barium and ^{131}Cs in quantities sufficient to supply a significant percentage of future demand for ^{131}Cs. Delivery of the isotopes from the Institute of Nuclear Materials began in January 2006. IsoRay believes this supplier may also provide access to sufficient quantities of enriched barium that may be recycled for use in other reactors to increase the production of ^{131}Cs. Although the agreement provides for supplying ^{131}Cs in significant quantities, there is no assurance that this will result in IsoRay gaining access to a sufficient supply of enriched barium feedstock and if sufficient supplies are attained we will need to increase our manufacturing staff.

We Are Subject To Uncertainties Regarding Reimbursement For Use Of Our Products. Hospitals and freestanding clinics may be less likely to purchase our products if they cannot be assured of receiving favorable reimbursement for treatments using our products from third-party payers, such as Medicare, Medicaid and private health insurance plans. Currently, Medicare reimburses hospitals, clinics and physicians for the cost of seeds used in brachytherapy procedures on a per seed basis. Historically, private insurers have followed Medicare guidelines in establishing reimbursement rates. However, third-party payers are increasingly challenging the pricing of certain medical services or devices, and we cannot be sure that they will reimburse our customers at levels sufficient for us to maintain favorable sales and price levels for our products. There is no uniform policy on reimbursement among third-party payers, and we can provide no assurance that our products will continue to qualify for reimbursement from all third-party payers or that reimbursement rates will not be reduced. A reduction in or elimination of third-party reimbursement for treatments using our products would likely have a material adverse effect on our revenues.

In 2003, we applied to the Centers for Medicare and Medicaid Services (CMS) and received reimbursement codes for use of our ^{131}Cs seed (HCPCS code C2633 and APC code 2633). However, since January 1, 2004 hospitals and clinics ordering brachytherapy seeds have been reimbursed for the cost of the seeds plus a fixed mark-up at a rate prescribed by CMS. Reimbursement amounts are reviewed and revised periodically on an ad hoc basis. Although the Company is not currently aware of any changes to CMS reimbursement rates that would have a material effect on our ability to maintain our pricing structure, adjustments could be made to these reimbursement amounts or policies, which could result in reduced reimbursement for brachytherapy services, which could negatively affect market demand for our products.

Furthermore, any federal and state efforts to reform government and private healthcare insurance programs could significantly affect the purchase of healthcare services and products in general and demand for our products in particular. We are unable to predict whether potential healthcare reforms will be enacted, whether other healthcare legislation or regulations affecting the business may be proposed or enacted in the future or what effect any such legislation or regulations would have on our business, financial condition or results of operations.

It Is Possible That Other Treatments May Be Deemed Superior To Brachytherapy. Our ^{131}Cs seed faces competition not only from companies that sell other radiation therapy products, but also from companies that are developing alternative therapies for the treatment of cancers. It is possible that advances in the pharmaceutical, biomedical, or gene therapy fields could render some or all radiation therapies, whether conventional or brachytherapy, obsolete. If alternative therapies are proven or even perceived to offer treatment options that are superior to brachytherapy, physician adoption of our product could be negatively affected and our revenues from our product could decline.

7

Our Industry Is Intensely Competitive. The medical products industry is intensely competitive. We compete with both public and private medical device, biotechnology and pharmaceutical companies that have been established longer than we have, have a greater number of products on the market, have greater financial and other resources, and have other technological or competitive advantages. In addition, centers that wish to offer the ^{131}Cs seed must comply with licensing requirements specific to the state in which they do business and these licensing requirements may take a considerable amount of time to comply with. Certain centers may choose to not offer our ^{131}Cs seed due to the time required to obtain necessary license amendments. We also compete with academic institutions, government agencies, and private research organizations in the development of technologies and processes and in acquiring key personnel. Although we have patents granted and patents applied for to protect our isotope separation processes and ^{131}Cs seed manufacturing technology, we cannot be certain that one or more of our competitors will not attempt to obtain patent protection that blocks or adversely affects our product development efforts. To minimize this potential, we have entered into exclusive agreements with key suppliers of isotopes and isotope precursors.

We May Be Unable To Adequately Protect Or Enforce Our Intellectual Property Rights Or Secure Rights To Third-Party Patents. Our ability and the abilities of our partners to obtain and maintain patent and other protection for our products will affect our success. We are assigned, have rights to, or have exclusive licenses to patents and patents pending in the U.S. and numerous foreign countries. The patent positions of medical device companies can be highly uncertain and involve complex legal and factual questions. Our patent rights may not be upheld in a court of law if challenged. Our patent rights may not provide competitive advantages for our products and may be challenged, infringed upon or circumvented by our competitors. We cannot patent our products in all countries or afford to litigate every potential violation worldwide.

Because of the large number of patent filings in the medical device and biotechnology field, our competitors may have filed applications or been issued patents and may obtain additional patents and proprietary rights relating to products or processes competitive with or similar to ours. We cannot be certain that U.S. or foreign patents do not exist or will not be issued that would harm our ability to commercialize our products and product candidates.

One Of Our Licensed Patents May Be Terminated Under Certain Conditions. Our ^{131}Cs separation patent is essential for the production of Cesium-131. The owner of the patent, Lane Bray, a shareholder of the Company and Chief Chemist of Medical, has the right to terminate the license agreement that allows the Company to use this patent if we discontinue production for any consecutive 18 month period. The Company has no plans to discontinue production, and management considers it highly unlikely that production will be discontinued for any significant period at any time in the future.

Failure To Comply With Government Regulations Could Harm Our Business. As a medical device and medical isotope manufacturer, we are subject to extensive, complex, costly, and evolving governmental rules, regulations and restrictions administered by the FDA, by other federal and state agencies, and by governmental authorities in other countries. Compliance with these laws and regulations is expensive and time-consuming, and changes to or failure to comply with these laws and regulations, or adoption of new laws and regulations, could adversely affect our business.

In the United States, as a manufacturer of medical devices and devices utilizing radioactive by-product material, we are subject to extensive regulation by federal, state, and local governmental authorities, such as the FDA and the Washington State Department of Health, to ensure such devices are safe and effective. Regulations promulgated by the FDA under the U.S. Food, Drug and Cosmetic Act, or the FDC Act, govern the design, development, testing, manufacturing, packaging, labeling, distribution, marketing and sale, post-market surveillance, repairs, replacements, and recalls of medical devices. In Washington State, the Department of Health, by agreement with the federal Nuclear Regulatory Commission ("NRC"), regulates the possession, use, and disposal of radioactive byproduct material as well as the manufacture of radioactive sealed sources to ensure compliance with state and federal laws and regulations. Our ^{131}Cs brachytherapy seeds constitute both medical devices and radioactive sealed sources and are subject to these regulations.

Under the FDC Act, medical devices are classified into three different categories, over which the FDA applies increasing levels of regulation: Class I, Class II, and Class III. Our ^{131}Cs seed has been classified as a Class II device and has received clearance from the FDA through the 510(k) pre-market notification process. Although not anticipated, any modifications to the device that would significantly affect safety or effectiveness, or constitute a major change in intended use, would require a new 510(k) submission. As with any submittal to the FDA, there is no assurance that a 510(k) clearance would be granted to the Company.

In addition to FDA-required market clearances and approvals for our products, our manufacturing operations are required to comply with the FDA's Quality System Regulation, or QSR, which addresses requirements for a company's quality program such as management responsibility, good manufacturing practices, product and process design controls, and quality controls used in manufacturing. Compliance with applicable regulatory requirements is monitored through periodic inspections by the FDA Office of Regulatory Affairs ("ORA"). We anticipate both announced and unannounced inspections by the FDA. Such inspections could result in non-compliance reports (Form 483) which, if not adequately responded to, could lead to enforcement actions. The FDA can institute a wide variety of enforcement actions, ranging from public warning letters to more severe sanctions such as fines, injunctions, civil penalties, recall of our products, operating restrictions, suspension of production, non-approval or withdrawal of pre-market clearances for new products or existing products, and criminal prosecution. There can be no assurance that we will not incur significant costs to comply with these regulations in the future or that the regulations will not have a material adverse effect on our business, financial condition and results of operations.

The marketing of our products in foreign countries will, in general, be regulated by foreign governmental agencies similar to the FDA. Foreign regulatory requirements vary from country to country. The time and cost required to obtain regulatory approvals could be longer than that required for FDA clearance in the United States and the requirements for licensing a product in another country may differ significantly from FDA requirements. We will rely, in part, on foreign distributors to assist us in complying with foreign regulatory requirements. We may not be able to obtain these approvals without incurring significant expenses or at all, and the failure to obtain these approvals would prevent us from selling our products in the applicable countries. This could limit our sales and growth.

Our Business Exposes Us To Product Liability Claims. Our design, testing, development, manufacture, and marketing of products involve an inherent risk of exposure to product liability claims and related adverse publicity. Insurance coverage is expensive and difficult to obtain, and, although we currently have a five million dollar policy, in the future we may be unable to obtain or renew coverage on acceptable terms, if at all. If we are unable to obtain or renew sufficient insurance at an acceptable cost or if a successful product liability claim is made against us, whether fully covered by insurance or not, our business could be harmed.

Our Business Involves Environmental Risks. Our business involves the controlled use of hazardous materials, chemicals, biologics, and radioactive compounds. Manufacturing is extremely susceptible to product loss due to radioactive, microbial, or viral contamination; material or equipment failure; vendor or operator error; or due to the very nature of the product’s short half-life. Although we believe that our safety procedures for handling and disposing of such materials comply with state and federal standards there will always be the risk of accidental contamination or injury. In addition, radioactive, microbial, or viral contamination may cause the closure of the respective manufacturing facility for an extended period of time. By law, radioactive materials may only be disposed of at state-approved facilities. At our leased facility we use commercial disposal contractors. We may incur substantial costs related to the disposal of these materials. If we were to become liable for an accident, or if we were to suffer an extended facility shutdown, we could incur significant costs, damages, and penalties that could harm our business.

We Rely Upon Key Personnel. Our success will depend, to a great extent, upon the experience, abilities and continued services of our executive officers and key scientific personnel. IsoRay has an employment agreement with Roger Girard, its Chief Executive Officer, and its subsidiary has employment agreements with most of its executive officers and key scientific personnel. If we lose the services of several of these officers or key scientific personnel, our business could be harmed. Our success also will depend upon our ability to attract and retain other highly qualified scientific, managerial, sales, and manufacturing personnel and their ability to develop and maintain relationships with key individuals in the industry. Competition for these personnel and relationships is intense and we compete with numerous pharmaceutical and biotechnology companies as well as with universities and non-profit research organizations. We may not be able to continue to attract and retain qualified personnel.

The Value Of Our Granted Patent, and Our Patents Pending, Is Uncertain. Although our management strongly believes that our patent on the process for producing ^{131}Cs, our patent pending on the manufacture of the brachytherapy seed, our patent applications on additional methods for producing ^{131}Cs and other isotopes which have been filed, and anticipated future patent applications, which have not yet been filed, have significant value, we cannot be certain that other like-kind processes may not exist or be discovered, that any of these patents is enforceable, or that any of our patent applications will result in issued patents.

Our Ability To Expand Into Foreign Markets Is Uncertain. Our future growth will depend in part on our ability to establish, grow and maintain product sales in foreign markets, particularly in Europe and Asia. However, we have limited experience in marketing and distributing products in other countries. Any foreign operations would subject us to additional risks and uncertainties, including our customers' ability to obtain reimbursement for procedures using our products in foreign markets; the burden of complying with complex and changing foreign regulatory requirements; language barriers and other difficulties in providing long-range customer service; potentially longer accounts receivable collection times; significant currency fluctuations, which could cause third-party distributors to reduce the number of products they purchase from us because the cost of our products to them could fluctuate relative to the price they can charge their customers; reduced protection of intellectual property rights in some foreign countries; and the possibility that contractual provisions governed by foreign laws would be interpreted differently than intended in the event of a contract dispute. Any future foreign sales of our products could also be adversely affected by export license requirements, the imposition of governmental controls, political and economic instability, trade restrictions, changes in tariffs and difficulties in staffing and managing foreign operations. Many of these factors may also affect our ability to import enriched barium from Russia under our contract with the Institute of Nuclear Materials.

Our Ability To Initiate Operations And Manage Growth Is Uncertain. Our efforts to commercialize our medical products will result in new and increased responsibilities for management personnel and will place a strain upon the entire company. To compete effectively and to accommodate growth, if any, we may be required to continue to implement and to improve our management, manufacturing, sales and marketing, operating and financial systems, procedures and controls on a timely basis and to expand, train, motivate and manage our employees. There can be no assurance that our personnel, systems, procedures, and controls will be adequate to support our future operations. If the IsoRay ^{131}Cs seed were to rapidly become the "seed of choice," it is unlikely that we could meet demand. We could experience significant cash flow difficulties and may have difficulty obtaining the working capital required to manufacture our products and meet demand. This would cause customer discontent and invite competition.

Our Reporting Obligations As A Public Company Are Costly. Operating a public company involves substantial costs to comply with reporting obligations under federal securities laws that are continuing to increase as provisions of the Sarbanes Oxley Act of 2002 are implemented. These reporting obligations will increase our operating costs. We may not reach sufficient business volume to justify our public reporting status.

Risks Related To This Offering

There Is A Limited Market For Our Common Stock. Currently only a limited trading market exists for our common stock. Our common stock currently trades on the Over-The-Counter Bulletin Board, a market with limited liquidity and minimal listing standards, under the symbol "ISRY.OB." While management has plans to apply for listing on the American Stock Exchange, the Company currently does not meet the applicable requirements and is uncertain as to when it will be able to do so. Any broker/dealer that makes a market in our stock or other person that buys or sells our stock could have a significant influence over its price at any given time. Shareholders may experience more difficulty in attempting to sell their shares than if the shares were listed on a national stock exchange or quoted on the NASDAQ Stock Market. We cannot assure our shareholders that a market of our stock will be sustained. There is no assurance that our shares will have any greater liquidity than shares that do not trade on a public market.

Our Stock Price Is Likely To Be Volatile. There is generally significant volatility in the market prices and limited liquidity of securities of early stage companies, and particularly of early stage medical product companies. Contributing to this volatility are various events that can affect our stock price in a positive or negative manner. These events include, but are not limited to: governmental approvals, refusals to approve, regulations or actions; market acceptance and sales growth of our products; litigation involving the Company or our industry; developments or disputes concerning our patents or other proprietary rights; changes in the structure of healthcare payment systems; departure of key personnel; future sales of our securities; fluctuations in our financial results or those of companies that are perceived to be similar to us; investors' general perception of us; and general economic, industry and market conditions. If any of these events occur, it could cause our stock price to fall.

Our Common Stock Is Subject To Penny Stock Regulation. As the market price of our shares has declined below $5.00 per share, our shares are now subject to the provisions of Section 15(g) and Rule 15g-9 of the Securities Exchange Act of 1934, as amended, commonly referred to as the "penny stock" rule. Section 15(g) sets forth certain requirements for transactions in penny stocks and Rule 15g-9(d)(1) incorporates the definition of penny stock as that used in Rule 3a51-1 of the Exchange Act. The SEC generally defines penny stock to be any equity security that has a market price less than $5.00 per share, subject to certain exceptions. Rule 3a51-1 provides that any equity security is considered to be penny stock unless that security is: registered and traded on a national securities exchange meeting specified criteria set by the SEC; authorized for quotation on The NASDAQ Stock Market; issued by a registered investment company; excluded from the definition on the basis of price (at least $5.00 per share) or the Company's net tangible assets; or exempted from the definition by the SEC. As our shares are now deemed to be "penny stocks", trading in the shares are subject to additional sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors. This classification also makes our shares ineligible for market coverage by many established brokerage firms.

Future Sales By Shareholders, Or The Perception That Such Sales May Occur, May Depress The Price Of Our Common Stock. The sale or availability for sale of substantial amounts of our shares in the public market, including shares covered by this prospectus and shares issuable upon exercise or conversion of outstanding preferred stock and derivative securities, or the perception that such sales could occur, could adversely affect the market price of our common stock and also could impair our ability to raise capital through future offerings of our shares. As of September 30, 2006, we had 15,853,852 outstanding shares of common stock, and the following additional shares were reserved for issuance: 3,436,176 shares upon exercise of outstanding options, 4,772,068 shares upon exercise of outstanding warrants, 91,298 shares upon conversion of preferred stock, 173,292 shares upon conversion of warrants to purchase preferred stock, and 109,639 shares upon conversion of convertible debentures. On the effective date of this prospectus, a total of 8,910,367 shares of common stock (including 632,836 shares issuable upon conversion or exercise of preferred stock and derivative securities and including not only shares registered through this prospectus but also the 3,418,498 shares registered through our Form S-8 registration statement filed on August 19, 2005, the 250,000 shares registered through our Form S-8 registration statement filed on August 18, 2006 and 604,769 shares eligible for resale under Rule 144(k)) to be offered and sold by selling shareholders will be eligible for sale in the public market, collectively constituting approximately 37% of our shares of common stock on a fully diluted basis.

In addition, we have granted registration rights that may not be exercised prior to October 2006 to purchasers of units pursuant to the October 17, 2005 private placement memorandum, as amended, which closed in January 2006 (the "October 17, 2005 Offering"), pursuant to the February 1, 2006 private placement memorandum, which closed on February 28, 2006, and to debenture holders that elected to remove the shares into which their debentures are convertible from this Prospectus and convert their debentures instead into units, consisting of 5,000 shares of common stock and warrants to purchase 5,000 shares of common stock per unit at a price of $20,000 per unit. We have also granted registration rights to purchasers of shares of common stock and warrants pursuant to our August 17, 2006 private offering. The Company filed a registration statement covering the shares described in this paragraph on October 16, 2006. Once this registration statement is effective, there would be an additional 9,064,890 shares of common stock held by shareholders eligible for sale in the public market, which together with the shares eligible for sale in the public market described in the prior paragraph would collectively constitute approximately 74% of our shares of common stock on a fully diluted basis.

As additional shares of our common stock become available for resale in the public market, the price of our common stock may decrease due to the additional shares in the market. Any decline in the price of our common stock may encourage short sales, which could place further downward pressure on the price of our common stock and may impair our ability to raise additional capital through the sale of equity securities.

The Issuance Of Shares Upon Conversion Or Exercise Of The Preferred Stock And Derivative Securities May Cause Immediate And Substantial Dilution To Our Existing Shareholders. The issuance of shares upon conversion of the preferred stock and convertible debentures and the exercise of warrants and options may result in substantial dilution to the interests of other shareholders since the selling shareholders may ultimately convert or exercise and sell all or a portion of the full amount issuable upon conversion or exercise. If all derivative securities being registered through this prospectus were converted or exercised into shares of common stock, there would be an additional 632,836 shares of common stock outstanding as a result. The issuance of these shares will have the effect of further diluting the proportionate equity interest and voting power of holders of our common stock, including investors in this offering.

We Do Not Expect To Pay Any Dividends For The Foreseeable Future. We do not anticipate paying any dividends to our shareholders for the foreseeable future. The terms of certain of our and Medical's outstanding indebtedness substantially restrict the ability of either company to pay dividends. Accordingly, investors must be prepared to rely on sales of their common stock after price appreciation to earn an investment return, which may never occur. Investors seeking cash dividends should not purchase our common stock. Any determination to pay dividends in the future will be made at the discretion of our Board of Directors and will depend on our results of operations, financial conditions, contractual restrictions, restrictions imposed by applicable law and other factors our Board deems relevant.

Cautionary Note Regarding Forward-looking Statements and Risk Factors

This prospectus, the Company's Form 10-KSB, any Form 10-QSB or any Form 8-K of the Company or any other written or oral statements made by or on behalf of the Company may contain "forward-looking statements", which reflect the Company's current views with respect to future events and financial performance. The words "believe," "expect," "anticipate," "intends," "estimate," "forecast," "project," and similar expressions identify forward-looking statements. All statements other than statements of historical fact are statements that could be deemed forward-looking statements, including any statements of the plans, strategies and objectives of management for future operations; any statements concerning proposed new products, services, developments or industry rankings; any statements regarding future economic conditions or performance; any statements of belief; any statements regarding the validity of our intellectual property and patent protection; and any statements of assumptions underlying any of the foregoing. Such "forward-looking statements" are subject to risks and uncertainties set forth from time to time in the Company's SEC reports and include, among others, the Risk Factors set forth above.

Readers are cautioned not to place undue reliance on such forward-looking statements as they speak only of the Company's views as of the date the statement was made. The Company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

DESCRIPTION OF BUSINESS

General

Century was organized under Minnesota law in 1983. Century had no operations since its fiscal year ended September 30, 1999 through June 30, 2005.

On July 28, 2005, IsoRay Medical, Inc. became a wholly-owned subsidiary of Century pursuant to a merger. Century changed its name to IsoRay, Inc. In the merger, the Medical stockholders received approximately 82% of the then outstanding securities of the Company.

Medical, a Delaware corporation, was incorporated effective June 15, 2004 to develop, manufacture and sell isotope-based medical products and devices for the treatment of cancer and other diseases. Medical is headquartered in Richland, Washington.

Medical was formed for the purpose of combining the operations of IsoRay, Inc. (a former Washington corporation) ("IsoRay (WA)") and its subsidiary, IsoRay Products LLC, two companies that shared common ownership and management with Medical. Medical's management initiated a merger transaction effective October 1, 2004, to combine operations.

Business Operations

Overview

IsoRay intends to utilize its patented radioisotope technology, experienced chemists and engineers, and management team to create a major therapeutic medical isotope and medical device company with a goal of providing improved patient outcomes in the treatment of prostate cancer and other solid tumor cancers. IsoRay began production and sales of its Food and Drug Administration ("FDA") cleared product, the IsoRay ^{131}Cs brachytherapy seed, in October 2004 for the treatment of prostate cancer. Management believes its technology will allow it to capture a leadership position in an expanded brachytherapy market. The more clinically beneficial characteristics of the Cesium-131 (Cs-131 or ^{131}Cs) isotope are expected to decrease radiation exposure to the patient and reduce the severity and duration of side effects, while treating cancer cells as effectively, if not more so than other isotopes used in seed brachytherapy. Cesium-131 could also enable meaningful penetration in other solid tumor applications such as breast, lung, liver, brain and pancreatic cancer, expanding the total available market opportunity.

Brachytherapy seeds are small devices used in an internal radiation therapy procedure. In recent years the procedure has become one of the primary treatments for prostate cancer and is now used more often than surgical removal of the prostate. The brachytherapy procedure places radioactive seeds as close as possible to (in or near) the cancer tumor (the word "brachytherapy" means close therapy). The seeds deliver therapeutic radiation by killing the tumor cells and cells located in the immediate vicinity of the tumor while minimizing exposure to adjacent healthy tissue. This allows doctors to administer a higher dose of radiation at one time than is possible with external beam radiation. Each seed contains a radioisotope sealed within a welded titanium capsule. Approximately 85 to 135 seeds are permanently implanted in the prostate in a 45-minute outpatient procedure. The isotope decays over time and the seeds become inert. The seeds may be used as a primary treatment or, in conjunction with other treatment modalities such as external beam radiation therapy, chemotherapy, or as treatment for residual disease after excision of primary tumors.

Management believes that the IsoRay ^{131}Cs seed represents the first major advancement in brachytherapy technology in over 18 years with attributes that could make it the long term "seed of choice" for internal radiation procedures. The ^{131}Cs seed has FDA clearance for treatment of malignant disease (e.g. cancers of the head and neck, brain, liver, lung, breast, prostate, etc.) and may be used in surface, interstitial, and intracavity applications for tumors with known radiosensitivity.

The ^{131}Cs isotope appears to have specific advantages for treating cancer over Iodine-125 (I-125 or ^{125}I) and Palladium-103 (Pd-103 or ^{103}Pd), the other isotopes commonly used in brachytherapy procedures. IsoRay believes that the short half-life and higher dose rate characteristics of ^{131}Cs will expand industry applications and facilitate meaningful penetration into the treatment of other forms of cancer such as breast cancer. The shorter half-life of 9.7 days for ^{131}Cs (versus 17 days for ^{103}Pd and 60 days for ^{125}I) mitigates negative effects of long radiation periods on healthy tissue and is believed to reduce the duration of certain side effects. The higher initial dose rate is believed to be more effective on fast growing cancers by aggressively attacking cancer cells and disrupting cancer cell re-population cycles. The characteristics of ^{131}Cs may result in the use of 10-30% fewer seeds per procedure compared to Pd-103, thereby reducing the total physical radiation dose to the patient and reducing the costs of the procedure for both third-party payers and the patient.

IsoRay and its predecessor companies have accomplished the following key milestones:

- § Treated 500th patient (September 2006);
- § Opened a new manufacturing and production facility (October 2005);
- § Deployed a direct sales force to the market (July 2004 - July 2005);
- § Developed a treatment protocol for prostate cancer with a leading oncologist (January 2005);
- § Treated the first patient (October 2004);

§ Commenced production of the ^{131}Cs seed (August 2004);

13

- § Filed five additional patent applications for the ^{131}Cs process (November 2003 - August 2004);
- § Obtained a Nuclear Regulatory Commission Sealed Source and Device Registration required by the Washington State Department of Health and the FDA (September 2004);
- § Received a Radioactive Materials License from the Washington State Department of Health (July 2004);
- § Implemented an ISO-9000 Quality Management System and production operating procedures (under continuing development);
- § Signed a Commercial Work for Others Agreement between Battelle (manager of the Pacific Northwest National Laboratory or PNNL) and IsoRay, allowing initial production of seeds through 2006 at PNNL (April 2004);
- § Raised over $23.0 M in debt and equity funding (September 2003 - August 2006)
- § Obtained favorable Medicare reimbursement codes for the Cs-131 brachytherapy seed (November 2003);
- § Obtained FDA 510(k) clearance to market the first product: the ^{131}Cs brachytherapy seed (March 2003);
- § Completed initial radioactive seed production, design verification, computer modeling of the radiation profile, and actual dosimetric data compiled by the National Institute of Standards and Technology and PNNL (October 2002); and
- § Obtained initial patent for ^{131}Cs isotope separation and purification (May 2000).

Industry Information

Incidence of Prostate Cancer

Excluding skin cancer, prostate cancer is the most common form of cancer, and the second leading cause of cancer deaths in men. The American Cancer Society estimated there will be about 234,460 new cases of prostate cancer diagnosed and an estimated 27,350 deaths associated with the disease in the United States during 2006. Because of early detection techniques (e.g., screening for prostate specific antigen, or PSA) approximately 70% (164,100) of these cases are potentially treatable with seed brachytherapy, when the cancers are still locally confined within the prostate.

The prostate is a walnut-sized gland surrounding the male urethra, located below the bladder and adjacent to the rectum. The two most prevalent prostate diseases are benign prostatic hyperplasia (BPH) and prostate cancer. BPH is a non-cancerous enlargement of the innermost part of the prostate. Prostate cancer is a malignant tumor that begins most often in the periphery of the gland and, like other forms of cancer, may spread beyond the prostate to other parts of the body.

Prostate cancer incidence and mortality increase with age. Prostate cancer is found most often in men who are over the age of 50. More than seven out of ten men diagnosed with prostate cancer are over the age of 65. According to the American Cancer Society, approximately one man in six will be diagnosed with prostate cancer during his lifetime.

In addition to age, other risk factors are linked to prostate cancer, such as genetics. Men who have relatives that have been affected, especially if the relatives were young at the time of diagnosis, have an even higher risk of contracting the disease. Researchers have discovered that changes in certain genes, influenced by DNA mutations inherited from a parent, may cause some men to be more inclined to develop prostate cancer. It has also been suggested that environmental factors such as exposure to cancer-causing chemicals or radiation may cause DNA mutations in many organs. Another factor that may contribute to prostate cancer is diet, with diets high in fat and high in calcium possibly increasing the risk of prostate cancer.

The American Cancer Society recommends that men without symptoms, risk factors and who have a life expectancy of at least ten years, should begin regular annual medical exams at the age of 50, and believes that health care providers should offer as part of the exam the prostate-specific antigen (PSA) blood test and a digital rectal examination. The PSA blood test determines the amount of prostate specific antigen present in the blood. PSA is

found in a protein secreted by the prostate, and elevated levels of PSA can be associated with either prostatitis (a noncancerous inflammatory condition) or a proliferation of cancer cells in the prostate. Transrectal ultrasound tests and biopsies are typically performed on patients with elevated PSA readings to confirm the existence of cancer.

A tumor found by a prostate biopsy is usually assigned a grade by a pathologist. The most common prostate cancer grading system is called the Gleason grading system. A Gleason score, which ranges from 2 to 10, usually is used to estimate the tumor's growth rate. Typically, the lower the score, the slower the cancer grows. Most localized cancers of the prostate gland are associated with an intermediate score ranging from Gleason scores 4 through 6.

Staging is the process of determining how far the cancer has spread. The treatment and recovery outlook depend on the stage of the cancer. The TNM system is the staging process used most often. The TNM system describes the extent of the primary tumor (T stage), whether the cancer has spread to nearby lymph nodes (N stage), and the absence or presence of distant metastasis (M stage). The TNM descriptions can be grouped together with stages labeled 0 through IV (0-4). The higher the number, the further the cancer has spread. The following table summarizes the various stages of prostate cancer.

Stages	Characteristics of Prostate Cancer
T1 or T2	Localized in the prostate
T3 or T4	Locally advanced
N+ or M+	Spread to pelvic lymph nodes (N+) or distant organs (M+)

Treatment Options and Protocol

In addition to brachytherapy, localized prostate cancer is commonly treated with radical prostatectomy (RP) and external beam radiation therapy (EBRT). Recently, intensity modulated radiation therapy (IMRT) has seen increased application, particularly in combination with brachytherapy for cancers that have begun to spread beyond the prostate. Other treatments include cryosurgery, hormone therapy, watchful waiting, and finasteride, a drug commonly prescribed to treat benign enlargement of the prostate and male baldness. Some of these therapies may be combined in special cases to address a specific cancer stage or patient need. When the cancerous tissue is not completely eliminated, the cancer typically returns to the primary site, often with metastases to other areas.

Radical Prostatectomy. Historically the most common treatment option for prostate cancer, radical prostatectomy is an invasive surgical procedure in which the entire prostate gland is removed. RP is performed under general anesthesia and typically involves a hospital stay of several days for patient observation and recovery. This procedure is often associated with relatively high rates of impotence and incontinence. For instance, a study published in the *Journal of the American Medical Association* in January 2000 reported that approximately 60% of men who had received RP reported erectile dysfunction as a result of surgery. The same report found that approximately 40% of the patients studied reported at least occasional incontinence. New bilateral nerve-sparing techniques are currently being used more frequently in order to address these side effects, but these techniques require a high degree of surgical skill. RP is typically more expensive than other common treatment modalities.

External Beam Radiation Therapy. EBRT allows patients to receive treatment on an outpatient basis and at a lower cost than RP. EBRT involves directing a beam of radiation from outside the body at the prostate gland in order to destroy cancerous tissue. The course of treatment usually takes seven to eight weeks to deliver the total dose of radiation prescribed to kill the tumor. Studies have shown, however, that the ten-year disease free survival rates with treatment through EBRT are less than the disease free survival rates after RP or brachytherapy treatment. In addition, because the radiation beam travels through the body to reach the prostate, normal tissue lying in the path of the radiation beam is also damaged. Other side effects are associated with EBRT. For instance, rectal wall damage caused by the radiation beam is a noted negative side effect. Data suggests that between 30% and 40% of the patients who undergo EBRT suffer problems with erectile dysfunction after treatment.

Intensity Modulated Radiation Therapy. IMRT is a newer, more advanced form of EBRT in which sophisticated computer control is used to aim the beam at the target volume from multiple different angles and to vary the intensity of the beam. Thus, damage to normal tissue and critical structures is minimized by distributing the unwanted radiation over a larger geometric area. The course of treatment is similar to EBRT and requires daily doses over a period of seven to eight weeks to deliver the total dose of radiation prescribed to kill the tumor. IMRT is relatively new and thus not widely available for use as a treatment modality. As a result fewer clinical data regarding treatment effectiveness and the incidence of side effects are available. One advantage of IMRT, and to some extent EBRT, is the ability to

treat cancers that have begun to spread from the tumor site. An increasingly popular therapy for patients with more advanced prostate cancer is a combination of IMRT with seed implant brachytherapy.

Cryosurgery. Cryosurgery, a procedure in which tissue is frozen to destroy tumors, is another treatment option for prostate cancer. Currently, this procedure is less widely used, although promising treatment outcomes have been reported. Cryosurgery typically requires a one to two day hospital stay and is associated with higher rates of impotence and other side effects than seed implant brachytherapy.

Other Treatments. Other treatments include hormone therapy and chemotherapy, which may be used to reduce the size of cancerous tumors. However, these treatments are not intended to ultimately cure a patient of prostate cancer. Instead, such treatment choices are made by physicians in an attempt to extend patients' lives if the cancer has reached an advanced stage or as ancillary treatment methods used in conjunction with other treatment modalities. Common side effects of hormone therapy are impotence, decreased libido and breast enlargement. Common side effects of chemotherapy are nausea, hair loss and fatigue.

"Watchful waiting" or "active surveillance", while not a treatment, is recommended by some physicians in extreme circumstances based on the severity and growth rate of the disease, as well as the age and life expectancy of the patient. Physicians and patients who choose watchful waiting are frequently seeking to avoid the negative side effects associated with RP or other treatment modalities. Through careful monitoring of PSA levels and close examination for advancing symptoms of prostate cancer, physicians may choose active treatments at a later date.

Treatment Protocol. Prostate cancer patients electing seed therapy first undergo an ultrasound test or CT scan, which generates a two-dimensional image of the prostate. With the assistance of a computer program, a three-dimensional treatment plan is created that calculates the number and placement of the seeds required for the best possible distribution of radiation to the prostate. Once the implant model has been constructed, the procedure is scheduled and the seeds are ordered. The number of seeds implanted normally ranges from 85 to 135, with the number of seeds varying with the size of the prostate. The procedure is usually performed under local anesthesia in an outpatient setting. The seeds are implanted using needles inserted into the prostate. When all seeds have been inserted, seed placement is verified through an ultrasound image, CT scan, fluoroscope or MRI. An experienced practitioner typically performs the procedure in approximately 45 minutes, with the patient normally returning home the same day. Most patients are able to return to their normal activities within one or two days following the procedure.

Origin of Brachytherapy seeds

One of the first reports in the medical literature regarding brachytherapy seeds that deliver "soft x-ray" radiation directly to tumors by permanent implantation appeared in 1965, authored by Donald C. Lawrence and Dr. Ulrich K. Henschke. Don Lawrence later developed and patented the titanium-encapsulated I-125 brachytherapy seed. His company, Lawrence Soft Ray Inc., provided the world's supply of seeds from 1967 to 1978 until the 3M Corporation purchased the technology. Eventually 3M sold the business to Amersham PLC, which spun off this business to its division ONCURA, today the market leader in Iodine-125 seeds. All commercially available seeds trace their origin to Mr. Lawrence's invention. Don Lawrence was a founder of IsoRay, LLC, the first predecessor company to IsoRay.

Brachytherapy has been used as a treatment for prostate cancer for more than 30 years. Formerly, seeds containing the radioactive isotope Iodine-125 were implanted in prostate tumors through open surgery. However, this technique fell into disfavor because the seeds were often haphazardly arranged resulting in radiation not reaching all of the targeted cancerous tissue. Compounding this was the fact that often an unintended radiation dose was delivered to healthy surrounding tissues, particularly the urethra and rectum. Originally, brachytherapy earned an unfavorable reputation because the early adopters did not have the imaging technologies needed for accurate placement of the seeds. This resulted in poor tumor control and greater damage to surrounding healthy tissue. Since the introduction of the ultrasound-guided, transperineal implantation technique in the late 1980s, brachytherapy has become a treatment that not only provides excellent therapeutic value but is very convenient and economical for the patient. The benefits of the advancements in imaging, computer dose planning, and the actual implant procedure have been validated by the improved clinical results achieved using modern brachytherapy techniques.

The introduction of Palladium-103 in the mid-1980s represented a major technology advancement in brachytherapy and played a significant role in the dramatic increase in the number of brachytherapy procedures performed. Within a relatively short period of time, ^{103}Pd captured 40% of the growing brachytherapy market.

Cesium-131 represents the first major advancement in brachytherapy technology in over 18 years with attributes that management believes could make it the long term "seed of choice" for internal radiation procedures. Management believes that the ^{131}Cs seed has specific clinical advantages for treating cancer over ^{125}I and ^{103}Pd.

There is a large and growing potential market for the Company's products. Several significant clinical and market factors are contributing to the increasing popularity of the brachytherapy procedure. In Europe brachytherapy is growing in excess of 25% per year and it is expected that market growth in the U.S. will also increase dramatically. In 1996 only 4% of prostate cancer cases were treated with brachytherapy, or about 8,000 procedures. In 2005, it was estimated that over 60,000 brachytherapy procedures were performed for prostate cancer. Brachytherapy as a treatment is now more common than radical prostatectomy and has become the treatment of choice for early-stage prostate cancer. Considerable attention is now being given to high risk and faster growing prostate cancers as well. Brachytherapy has significant advantages over competing treatments including lower cost, better survival data, fewer side effects, a faster recovery time and the convenience of a single outpatient procedure that generally lasts 45 minutes (Merrick, et al., *Techniques in Urology*, Vol. 7, 2001; Potters, et al., *Journal of Urology*, May 2005; Sharkey, et al., *Current Urology Reports*, 2002).

Clinical Results

Long term survival data are now available for brachytherapy with ^{103}Pd and ^{125}I, which support the efficacy of brachytherapy. Clinical data indicate that brachytherapy offers success rates for early-stage prostate cancer treatment that are equal to or better than those of RP or EBRT. While clinical studies of brachytherapy to date have focused on results from brachytherapy with Pd-103 and I-125, management believes that this data will be relevant for brachytherapy with Cs-131, and Cs-131 may offer improved clinical outcomes over Pd-103 and I-125, given its shorter half-life and higher energy.

Improved patient outcomes. A number of published studies on the use of ^{103}Pd and ^{125}I brachytherapy in the treatment of early-stage prostate cancer have been very positive (we have not obtained consent to cite the studies listed below).

- § In September 2006 a 5 year prospective study to assess the impact of interstitial brachytherapy on the quality of life of patients with localized prostate cancer was published. The results of the present study confirm that the impact of interstitial brachytherapy on the patients' quality of life is low despite its transient negative effects on some function, and extend existing knowledge concerning quality of life after interstitial brachytherapy. *International Journal of Radiation Oncology; Volume 66; 1;31-37.*
- § A twelve-year clinical study published in the 2004 Supplement of the *International Journal of Radiation Oncology, Biology and Physics*, reported relative survival rate of 84% for low risk cancer patients, 78% for intermediate risk cancer patients and 68% for high risk cancer patients. The study was conducted by Dr. Lou Potters, et al. of the New York Prostate Institute and included 1,504 patients treated with brachytherapy between 1992 and 2000.
- § A study published in the January 2004 issue of the *International Journal of Radiation Oncology, Biology and Physics*, reported that brachytherapy, radical prostatectomy, high-dose external beam radiation therapy and combined therapies produced similar cure rates. The study was conducted by Dr. Patrick Kupelian, Dr. Louis Potters, et al. and included 2,991 patients with Stage T1 or T2 prostate cancer. Of these patients, 35% of patients underwent surgery, 16% received low-dose EBRT, 10% received high-dose EBRT, 7% received combination therapy and 32% received brachytherapy. After five years, the biochemical relapse-free survival rate was 83% for brachytherapy, 81% for radical prostatectomy, 81% for high-dose EBRT, 77% for combination therapy and 51% for low-dose EBRT.
- § A nine-year clinical study published in the March 2000 issue of the *International Journal of Radiation Oncology, Biology and Physics*, reported that 83.5% of patients treated with Pd-103 seeds were cancer-free at nine years. The study was conducted by Dr. John Blasko of the Seattle Prostate Institute and included 230 patients with clinical stage T1 and T2 prostate cancer. Only 3% experienced cancer recurrence in the prostate.

17

- § Results from a 10-year study conducted by Dr. Datolli and Dr. Wallner published in the *International Journal of Radiation Oncology, Biology and Physics* in September 2002, were presented at the October 2002 American Society for Therapeutic Radiology and Oncology (ASTRO) conference confirming the effectiveness of the Pd-103 seed in patients with aggressive cancer who previously were considered poor candidates for brachytherapy. The 10-year study was comprised of 175 patients with Stage T2-T3 prostate cancer treated from 1991 through 1995. Of these patients, 79 percent remained completely free of cancer without the use of hormonal therapy or chemotherapy.
- § A study by the Northwest Prostate Institute in Seattle, Washington reported 79% disease-free survival at 12 years for brachytherapy in combination with external beam radiation (Ragde, *et al*., *Cancer,* July 2000). The chance of cure from brachytherapy is nearly 50% higher than for other therapies for men with large cancers (PSA 10-20) and over twice as high as other therapies for men with the largest cancers (PSA 20+) (K. Wallner, *Prostate Cancer: A Non-Surgical Perspective,* Smart Medicine Press, 2000).

Reduced Incidence of Side Effects. Sexual potency and urinary incontinence are two major concerns men face when choosing among various forms of treatment for prostate cancer. Because the IsoRay ^{131}Cs seed delivers a highly concentrated and confined dose of radiation directly to the prostate, healthy surrounding tissues and organs typically experience less radiation exposure. Management believes, and initial results appear to support, that this should result in lower incidence of side effects and complications than may be incurred with other conventional therapies, and when side effects do occur, they should resolve more rapidly than those experienced with I-125 and Pd-103 isotopes.

Favorable Market Factors

Lower Treatment Cost. The total one-time cost of brachytherapy ranges from $10,000 to $17,000 per procedure. This is less than the cost of a radical prostatectomy or RP, which ranges from $17,000 to $20,000, excluding treatment for side effects and post-operative complications. Brachytherapy cost is comparable to the cost of EBRT (external beam radiation), which is approximately $14,000 to $35,000 for a seven to nine week course of treatment.

Favorable Demographics. Prostate cancer incidence and mortality increase with age. Prostate cancer is found most often in men who are over the age of 50. The National Cancer Institute has reported that the incidence of prostate cancer increases dramatically in men over the age of 55. Currently, one out of every six men is at lifetime risk of developing prostate cancer. More than seven out of ten men diagnosed with prostate cancer are over the age of 65. At the age of 70, the chance of having prostate cancer is 12 times greater than at age 50. According to the American Cancer Society, prostate cancer incidence rates increased between 1988 and 1992 due to earlier diagnosis in men who otherwise had no sign of symptoms. Early screening has fostered a decline in the prostate cancer death rate since 1990.

The number of prostate cancer cases in the U.S. is expected to increase due to the expanding population of men over the age of 55. The U.S. Census Bureau estimates this segment of the population will increase from 25.9 million men in 2000 to 32 million men by 2008 - a 24% increase. Extrapolating that data, management believes that the U.S. will provide over 180,000 candidates annually for prostate brachytherapy by 2008.

Increased PSA Screening. Early PSA screening and testing leads to early diagnosis. The American Cancer Society recommends that men without symptoms or risk factors and who have a life expectancy of at least ten years, should begin regular annual medical exams at the age of 50, and believes that health care providers should offer as part of the exam the prostate-specific antigen blood test. The PSA blood test determines the amount of prostate specific antigen present in the blood. PSA is found in a protein secreted by the prostate, and elevated levels of PSA can be associated with either prostatitis (a noncancerous inflammatory condition) or a proliferation of cancer cells in the prostate. Industry studies have shown that the PSA test can detect prostate cancer up to five years earlier than the digital rectal exam. Ultrasound tests and biopsies are typically performed on patients with elevated PSA readings to confirm the existence of cancer.

Our Strategy

The key elements of IsoRay's strategy include:

- § *Continue to introduce the IsoRay ^{131}Cs seed into the U.S. brachytherapy market*. Utilizing a direct sales organization and selected channel partners, IsoRay intends to capture a leadership position by expanding overall use of the brachytherapy procedure for prostate cancer, capturing much of the incremental market growth and taking market share from existing competitors.
- § *Create a state-of-the-art manufacturing process*. IsoRay has constructed a state-of-the-art manufacturing facility in Richland, Washington in its leased facility, to implement our proprietary manufacturing process which is designed to improve profit margins and provide adequate manufacturing capacity to support future growth and ensure quality control. If Initiative 297 presents a strategic roadblock to the Company, or if attractive financing alternatives are available in another state, IsoRay will construct a permanent manufacturing facility in another state. Working with leading scientists, IsoRay intends to design and create a proprietary separation

- § *Introduce Cesium-131 therapies for other cancers*. IsoRay intends to partner with other companies to develop the appropriate delivery technology and therapeutic delivery systems for treatment of other solid tumors such as breast, lung, liver, pancreas, neck, and brain cancer. IsoRay's management believes that the first major opportunities may be for the use of Cesium-131 in adjunct therapy for the treatment of residual lung and breast cancers.
- § *Support clinical research and sustained product development*. The Company plans to structure and support clinical studies on the therapeutic benefits of Cs-131 for the treatment of solid tumors and other patient benefits. We are and will continue to support clinical studies with several leading radiation oncologists to clinically document patient outcomes, provide support for our product claims and compare the performance of our seeds to competing seeds. IsoRay plans to sustain long-term growth by implementing research and development programs with leading medical institutions in the U.S. to identify and develop other applications for IsoRay's core radioisotope technology.

Management believes there is a large and growing addressable market for IsoRay's products. Several factors appear to contribute to the increasing popularity of the brachytherapy procedure. Long-term survival data are now available for brachytherapy (other than with respect to treatment from Cs-131 seeds). Brachytherapy has become the treatment of choice for not only early-stage prostate cancer but is now being considered for treatment of fast growing, aggressive tumors. For the treatment of prostate cancer, seed brachytherapy is now more common than surgery (radical prostatectomy). Seed brachytherapy has significant advantages over competing treatments including lower cost, better survival data, fewer side effects, a faster recovery time and the convenience of an outpatient procedure that generally lasts 45 minutes. Over 60,000 procedures were forecasted to occur in the U.S. in 2005. At the October 1, 2006 Cs-131 seed price of $59, this represents a potential $350 million market for seeds that is forecast to grow substantially by 2009 according to a recent market survey performed by Frost & Sullivan, a nationally recognized market research firm. IsoRay's management believes that the ^{131}Cs seed will add incremental growth to the existing brachytherapy seed market as physicians who are currently reluctant to recommend brachytherapy for their prostate patients due, in part, to side effects caused by longer-lived isotopes, become comfortable with the shorter half-life of ^{131}Cs, and the anticipated reduction of side effects.

Products

IsoRay markets the Cesium-131 seed and intends to market other radioactive isotopes in the future. Additionally, it will attempt to create a market, primarily in clinical trials, for the liquid Cs-131 isotope, which is created in the production of IsoRay's ^{131}Cs seed.

Cs-131 Seed Product Description and Use in Cancer Treatment

Brachytherapy seeds are small devices that deliver therapeutic radiation directly to tumors. Each seed contains a radioisotope sealed within a welded titanium capsule. In prostate cancer procedures, approximately 85 to 135 seeds are permanently implanted in a 45-minute outpatient procedure. The isotope decays over time, and the seeds become inert. The seeds may be used as a primary treatment or in conjunction with other treatment modalities such as external beam radiation therapy, chemotherapy, or as treatment for residual disease after excision of primary tumors.

Significant advantages of brachytherapy over competing treatments include: fewer side effects (the likelihood of impotence and incontinence is reduced when seeds are used to treat prostate cancer); short, convenient outpatient procedure (typically 45 minutes); faster recovery time (days vs. weeks); lower cost than other treatment modalities; higher cure rates for solid tumors; less pain; and overall considerably better quality of life. The primary disadvantage of brachytherapy is subjecting the human body to radiation and the side effects of radiation. Physician errors in seed placement and the number of seeds implanted may also result in the failure to eradicate the cancer or in negative side effects from over-radiation of certain tissues in the body.

19

A diagram of the IsoRay seed appears in Figure 1. The seed contains an x-ray opaque marker surrounded by a ceramic substrate to which the isotope is chemically attached. The seed core is placed in a titanium tube and precision laser welded to form a hermetically sealed source of therapeutic radiation suitable for permanent implantation. The x-ray marker allows the physician to accurately determine seed placement within the tumor.

Figure 1: Cross section of ^{131}Cs seed

Competitive Advantages of Cs-131
Management believes that ^{131}Cs has specific clinical advantages for treating cancer over I-125 and Pd-103, the other isotopes currently used in brachytherapy seeds. The table below highlights the key differences of the three seeds. The Company believes that the short half-life, high-energy characteristics of ^{131}Cs will increase industry growth and facilitate meaningful penetration into the treatment of other forms of cancer such as breast cancer.

Brachytherapy Isotope Comparison

	Cesium-131	**Palladium-103**	**Iodine-125**
Half Life	9.7 Days	17.5 days	60 days
Avg. Energy	30.4 KeV+	21 KeV+	28.5 KeV+
Dose Delivery	90% in 33 days	90% in 58 days	90% in 204 days
Total Dose	115 Gy	125 Gy	145 Gy
Anisotropy Factor*	.969	.877 (TheraSeed® 2000)	.930 (OncoSeed® 6711)
*Degree of symmetry of therapeutic dose, a factor of 1.00 indicates symmetry. +KeV = kiloelectron volt, a standard unit of measurement for electrical energy.			

Shorter half-life. The Company believes that Cesium-131's shorter half-life of 9.7 days will prove to have greater biological effectiveness, will mitigate the negative effects of long radiation periods on healthy tissue and will reduce the duration of any side effects. A shorter half-life produces more intense therapeutic radiation over a shorter period of time and may reduce the potential for cancer cell survival and tumor recurrence. Radiobiological studies indicate that shorter-lived isotopes are more effective against faster growing tumors (Dicker, et. al., *Semin. Urol. Onc.* 18:2, May 2000). Other researchers conclude that "half-lives in the approximate range 4-17 days are likely to be significantly better for a wide range of tumor types for which the radiobiologic characteristics may not be precisely known in advance." (Armpilia CI, et. al., *Int. J. Rad. Oncol. Biol. Phys.* 55:2, February 2003).

Higher energy. The Cs-131 isotope average decay energy of 30.4 KeV (versus 21 KeV for Pd-103 and 28.5 KeV for I-125) generates a therapeutic radiation field that extends beyond the current dosimetry reference point of 1 cm. Pd-103 seeds emit radiation that does not penetrate as far in tissue (up to 40% lower than Cs-131). To compensate for this more Pd-103 seeds are required to attain the equivalent dose as if Cs-131 seeds were used. This increase in the number of seeds implanted increases the time and cost required to perform Pd-103-based procedures. The lower energy from ^{103}Pd seeds may also result in greater non-uniformity of the implant dose as dose rates near the surface of each seed must be higher to compensate for lower doses at greater distances from each seed. The high energy of Cs-131 can result in radiation toxicity if the dosage is not properly calculated by the implanting physician and staff but the higher energy of Cs-131 does make the isotope more "forgiving" for treatment planning purposes.

Reduced side effects. Because the IsoRay ^{131}Cs seed device delivers a highly concentrated and confined dose of radiation directly to the prostate, healthy surrounding tissues and organs are exposed to less radiation than with other treatments. Management believes this should result in fewer and less severe side effects and complications than may be incurred with other conventional therapies.

Figure 2: Cs-131 seed Autoradiograph

Shape of radiation field. The shape of the radiation field generated by a ^{131}Cs seed is more uniform than most brachytherapy seed designs, and this uniformity may result in better radiation dose coverage and improved therapeutic effectiveness. Figure 2 shows an autoradiograph (film exposed by radiation from the seed itself) of an IsoRay seed, which shows this uniformity of the radiation field that is expected to result in better radiation dose coverage. IsoRay has conducted extensive computer modeling and testing of the seed design. The IsoRay seed has passed all Nuclear Regulatory Commission ("NRC") requirements for sealed radioactive sources. Dose uniformity was tested and the results compared well to those predicted by industry standard computer modeling techniques. In the third quarter of 2002, seeds were sent to the National Institute for Standards and Technology for calibration, and have undergone dosimetry testing according to American Association of Physicists in Medicine ("AAPM") protocols. The results of these tests were compiled in IsoRay's 510(k) submission to the FDA and were subsequently published in the June 2004 issue of *Medical Physics*. The results of these tests showed superior dose characteristics relative to the leading I-125 and Pd-103 seeds.

Reduced costs. The characteristics of ^{131}Cs seeds described above may result in the use of 10%-30% less seeds per procedure, compared to other isotopes, thereby reducing the total physical radiation dose to the patient and reducing the costs of the procedure for the third-party payers and the patient.

Yttrium 90

Since formation of the Company, management had intended to introduce a second product, Yttrium 90, sometime in 2006. However, management now intends to focus all of its efforts on manufacturing and marketing Cs-131 as it now believes that Yttrium 90 will require the acquisition of additional capital beyond the needs of support for Cs-131 and distract management from its core business at a time when it believes it can gain valuable market share for Cs-131.

Cs-131 Manufacturing Process

Cs-131 is a radioactive isotope that can be produced by the neutron bombardment of Barium-130. When Ba-130 is put into a nuclear reactor it becomes Ba-131, the radioactive material that is the parent isotope of Cs-131. The overall process includes the following:

- *Isotope Generation*. The radioactive isotope Cs-131 is normally produced by placing a quantity of stable non-radioactive barium (ideally pure Ba-130) into the neutron flux of a nuclear reactor. The irradiation process converts a small fraction of this material into a radioactive form of barium (Ba-131). The Ba-131 decays by electron capture to the radioactive isotope of interest (Cs-131). Due to the short half-life of both the Ba-131 and Cs-131 isotopes, potential suppliers must be capable of removing irradiated materials from the reactor core on a routine basis for subsequent processing to produce ultra-pure Cs-131. The Company has identified more than five reactors facilities in the U.S., Europe and the former Soviet Union that are capable of meeting these requirements. As of October 17, 2006, IsoRay had agreements in place with two suppliers of irradiated Ba-131 or Cs-131. The Company's agreement with Russia's Institute of Nuclear Materials (which commenced as of August 25, 2005 and ends August 25, 2012) allows the Company to purchase irradiated Ba-131 for $300.00 per Curie of the isotope. The projected value of the agreement over its term is $30,000,000 with $300,000 worth of isotope projected to be delivered in the first full year of production, although neither of these amounts are obligations to purchase any given quantity of the isotopes in a particular time period. Through June 30, 2006, the Company had paid approximately $74,000 to the Institute of Nuclear Materials. In addition, the Company is engaged in the development of a barium enrichment device that, if successful, should reduce the cost of producing Cs-131 while maintaining the purity and consistency required in the end product.
- *Isotope Separation and Purification*. Upon irradiation of the barium feedstock, the Ba-131 begins decaying to Cs-131. At pre-determined intervals the Cs-131 produced is separated from the barium feedstock and purified using a proprietary radiochemical separations process (patent applied for). Due to the high-energy decay of Ba-131, this process is performed under stringent radiological controls in a highly shielded isolator or "hot cell" using remote manipulators. After separating Cs-131 from the energetic Ba-131, subsequent seed processing may be performed in locally shielded fume hoods or glove boxes. If enriched barium feedstock is used, the residual barium remaining after subsequent Cs-131 separation cycles ("milkings") will be recycled back to the reactor facility for re-irradiation. This material will be recycled as many times as economically feasible, which should make the process more cost effective. As an alternative to performing the Cs-131 separation in our own facilities, IsoRay may enter into agreements with other entities to supply "raw" Cs-131 by performing the initial barium/cesium separation at their facilities, followed by final purification at IsoRay's facility.
- *Internal Seed Core Technology*. The purified Cs-131 isotope is incorporated into an internal assembly that contains a binder, spacer and a gold X-ray marker. This internal core assembly is subsequently inserted into a titanium case. The dimensional tolerance for each material is extremely important. Several carrier materials and placement methods have been evaluated, and through a process of elimination, we have developed favored materials and methods during our laboratory testing. The equipment necessary to produce the internal core includes accurate cutting and gauging devices, isotope incorporation vessels, reaction condition stabilization and monitoring systems, and tools for placing the core into the titanium tubing prior to seed welding.
- *Seed Welding.* Following production of the internal core and placement into the titanium capsule, each seed is laser welded to produce a sealed radioactive source and biocompatible medical device. This manufacturing technology requires: accurate placement of seed components with respect to the welding head, accurate control of welding parameters to ensure uniform temperature and depth control of the weld, quality control assessment of the weld integrity, and removal of the finished product for downstream processing or rejection of unacceptable materials to waste. Inspection systems are capable of identifying and classifying these variations for quality control and to ensure low scrap rates. Finally, the rapid placement and removal of components from the welding zone affects overall product throughput.
- *Quality Control*. We have established procedures and controls to meet all FDA and ISO 9001:2000 Quality Standards. Product quality and reliability will be secured by utilizing multiple sources of irradiation services,

feedstock material, and other seed manufacturing components. An intensive production line preventive maintenance and spare parts program will be implemented. Also, an ongoing training program will be established for customer service to ensure that all regulatory requirements for the FDA, DOT and applicable nuclear radiation and health authorities are fulfilled.

The Company has implemented a just-in-time production process that is keenly responsive to customer input and orders to ensure that individual customers receive a higher level of customer service from us than from existing seed suppliers who have the luxury of longer lead times due to longer half-life products. Time from order confirmation to completion of product manufacture can be reduced to several working days, including receipt of irradiated barium (from a supplier's reactor), separation of Cs-131 (at our facilities), isotope labeling of the core, and loading of cores into pre-welded titanium "cans" for final welding, testing, quality assurance and shipping.

It is up to each physician to determine the dosage necessary for implants and acceptable dosages vary among physicians. Many of the physicians who order our seeds order more seeds than necessary but wish to assure themselves that they have a sufficient amount. Upon receipt of an order, the Company either delivers the seeds from its facility directly to the physician using Federal Express or sends the order to an independent preloading service which delivers the seeds preloaded into needles just prior to implant. If the implant is postponed or rescheduled, the short half-life of the seeds makes them unsuitable for use and therefore they must be re-ordered. In recent months the Company has experienced losses of viable seeds that have increased the Company's monthly expenditures. The Company is seeking to implement methods to better forecast demand for seeds and reduce unused inventory.

Automated Manufacturing Process

IsoRay has held discussions with leading designers and manufacturers of automated seed manufacturing equipment that have manufactured, installed and deployed automated production lines in Europe and the United States. In addition, IsoRay engaged in preliminary discussions with another seed manufacturer regarding obtaining an existing automated seed production line. Based on technical evaluations and on site reviews of both options, IsoRay elected to automate its current manufacturing process in phases. Current production rates with IsoRay's semi automated seed welding equipment exceed those attainable with fully automated lines. Phased implementation of automation is expected to be less costly than fully automated production lines and will benefit IsoRay by reducing labor costs and helping to ensure consistent manufacturing quality.

Manufacturing Facility

The initial production of the IsoRay Cs-131 brachytherapy seed commenced at PNNL in 2004. IsoRay has signed a lease agreement and completed construction (tenant improvements) of a new interim production facility in Richland, Washington that received final regulatory approval on October 6, 2005 and began radioactive production operations shortly thereafter. The Company is also considering another state as a location for a future facility, either as the Company's sole manufacturing facility or as a secondary production facility. No agreements have been reached for any possible facilities outside of Washington.

Isotope Testing in Idaho

On December 14, 2005, IsoRay and Idaho's Advanced Test Reactor ("ATR") entered into a collaboration and partnership agreement for the design, analysis and fabrication of a capsule containing barium carbonate, to be irradiated at the ATR and then shipped to IsoRay for processing and analysis of the ^{131}Cs product. As an adjunct to this testing, IsoRay and the Pocatello Development Authority entered into an Economic Development Agreement, dated December 14, 2005, under which the Pocatello Development Authority provided IsoRay with $200,000 (subject to repayment under certain conditions) to use toward the cost of testing at the ATR. During July 2006, several capsules were irradiated and shipped to IsoRay's PIRL facility for analysis. The results of the analyses indicate the capsule performed as designed and that a planned capsule shuttle system will provide adequate conditions for ^{131}Cs production that will enhance IsoRay's overall production capacity.

Repackaging Services

Most brachytherapy manufacturers offer their seed product to the end user packaged in four principal configurations provided in a sterile or non-sterile package depending on the customer's preference. These include:

- *Loose seeds*
- *Pre-loaded needles* (loaded with 3 to 5 seeds and spacers)
- *Strands of seeds* (consists of seeds and spacers in a biocompatible "shrink wrap")
-

Pre-loaded Mick cartridges (fits the Mick applicator - seed manufacturers usually load and sterilize Mick cartridges in their own manufacturing facilities)

No single package configuration dominates the market at this point. Market share estimates, based on internal management studies of the market, for each of the four packaging types are: loose seeds (negligible amount), Mick cartridges (20%), pre-loaded needles (30%) and strands (50%). Market trends indicate significant movement toward the stranded configuration, as there are some clinical data suggesting less potential for post-implant seed migration when a stranded configuration is used.

The role of the preloading service is to package, assay and certify the contents of the final product configuration shipped to the customer. A commonly used method of providing this service is through independent radiopharmacies such as Anazao Healthcare and Advanced Care Medical Inc. Manufacturers send loose seeds along with the physician's instructions to the radiopharmacy who, in turn, loads needles and/or strands the seeds according to the doctor's instructions. These pharmacies then sterilize the product and certify the final packaging prior to shipping directly to the end user.

IsoRay has held discussions with the major independent radiopharmacies and determined the additional time required for delivery of loose seeds to an off-site radiopharmacy for subsequent assay, preloading and sterilization creates additional loss of our isotope due to decay and is prohibitive on a long-term basis. However, to increase sales in the near-term we are using these services until our own custom preloading operation comes fully on-line in 2006. On March 1, 2006, the Company entered into a Service Agreement with Advanced Care Medical, Inc. for preloading services. The term of the Service Agreement is one year, with automatic one year extensions unless terminated, and prices vary from $6-18 per seed depending on how the seeds are packaged. In late March 2006, the Company’s stranding service became operational but stranding activity was suspended pending FDA 510(k) clearance of preloaded seed configurations as devices rather than convenience kits for seeds. The 510(k) filing for the stranding activity was submitted to the FDA in August 2006 and the Company expects to receive clearance in the second quarter of fiscal 2007.

The Company currently loads Mick cartridges in our own facility which in recent months accounted for more than 65% of total seed orders. The Company has retained a consultant to assist with implementation of the custom preloading service and expects to begin offering its seed in all four of the commonly used packaging configurations to the rest of its customer base within forty-five to sixty days, pending FDA 510(k) clearance of selected preloaded seed configurations. Providing this service in-house will reduce the current cycle time for any given customer order by three to four days by eliminating the need to ship loose seeds to a third-party provider. This reduction in cycle time will eliminate approximately 25% loss in isotope activity due to radioactive decay. The cost of priority overnight shipment of each order of seeds to a third-party provider is also eliminated. However, we will continue to utilize the independent radiopharmacies in the future both as a backup to our own preloading operation and to handle periodic increases in demand.

Independent radiopharmacies usually provide the final packaging of the product delivered to the end user. This eliminates the opportunity for reinforcing the "branding" of our seed product. By providing its own repackaging service, the Company preserves the product branding opportunity and eliminates any concerns related to the handling of its product by a third party prior to delivery to the end user.

Providing different packaging configurations adds significant value to the product while providing an additional revenue stream and incremental margins to the Company through the pricing premiums that can be charged. The end users of these packaging options are willing to pay a premium because of the savings they realize by eliminating the need for loose seed handling and loading capabilities on site, eliminating the need for additional staffing to load and sterilize seeds and needles, and eliminating the expense of additional assaying of the seeds.

Management estimates the cost of establishing the custom preloading service in its new, leased facility to be approximately $250,000, most of which has already been spent on capital equipment. The custom preloading area has been created in the facility and the necessary equipment has been delivered and installed. Operating procedures are in place, staff members have been trained, and process validation activities have been completed. Technicians have been added to the staff to handle the seed loading and stranding operations. As the Company is not currently performing the stranding function pending FDA 510(k) clearance, these staff members are currently being utilized in our seed production process. PNNL will continue to provide independent third-party assay of the seeds for the foreseeable future. Our customer service staff will provide assistance with shipping, documentation and tracking of all orders from the repackaging service to the end user.

24

Barium Enrichment Device

Barium-130 is the original source material for Cs-131. When Ba-130 is put into a nuclear reactor it becomes Ba-131, the radioactive material that is the parent isotope of Cs-131. Barium metal found in nature contains only 0.1% of Ba-130 with six other isotopes making up the other 99.9%. As part of its manufacturing process the Company intends to develop a barium enrichment device that should create “enriched barium” with a higher concentration of the Ba-130 isotope than is found in naturally occurring barium. In addition to creating a higher purity Ba-130, which translates into higher purity Cs-131, a successfully completed barium enrichment device would result in higher yields of Cs-131. The Company has identified sources of enriched barium, including in the former Soviet Union, that we are using until the barium enrichment device is developed.

Marketing and Sales

Marketing Strategy

The Company intends to position Cs-131 as the isotope of choice for prostate brachytherapy. Based on preliminary clinical studies, management believes there is no apparent clinical reason to use other isotopes when Cesium-131 is available. The advantages associated with a higher energy and shorter half-life isotope are generally accepted within the clinical community and the Company intends to help educate potential patients about the clinical benefits a patient would experience from the use of Cs-131 for their brachytherapy seed treatment. The potential negative effects of the prolonged radiation times associated with the long half-life of Iodine-125 make this isotope less attractive than Cesium-131.

We target competing isotopes as our principal competition rather than the various manufacturers and distributors of these isotopes. In this way, the choice of brachytherapy isotopes will be less dependent on the name and distribution strengths of the various iodine and palladium manufacturers and distributors and more dependent on the therapeutic benefits of Cs-131. The Company focuses the purchasing decision on the advantages and functionality of the Cs-131 isotope while seeking to educate the cancer patient about these clinical benefits.

The professional and patient market segments each play a role in the ultimate choice of cancer treatment and the specific isotope chosen for seed brachytherapy treatment. The Company is tailoring its marketing message to each audience. IsoRay has retained an advertising agency in the Seattle area to assist with its marketing communication program. The agency is coordinating the creation and distribution of all advertising material and work with the print and visual media.

We are seeking to promote the advantages of Cs-131’s unique combination of high energy and short half-life within the clinical market. Because we believe there is no apparent clinical reason to choose other isotopes over cesium, we have and will continue to target those high volume users of other isotopes as our implant sites. We also emphasize the prolonged radiation times and the high doses of radiation given to the patient by the iodine isotope and the possible negative effects of this prolonged radiation to the adjacent healthy tissues. We believe that this is an important marketing message because clinicians generally agree the radiation given by Iodine has little or no clinical benefit after 120 to 150 days.

To promote our products to the clinical and professional audience, we are using a combination of marketing messages to appear in print and visual media. Past and planned marketing activities include: attendance at the major brachytherapy-related clinical conferences to exhibit our products and provide marketing information for annual meetings, conferences and other forums of the various professional societies; print advertising in brachytherapy clinical journals; and promoting clinical presentations by experts in the field at major conferences.

In today's U.S. health care market patients are more informed and involved in the management of their health and any treatments required. Many physicians relate incidents of their patients coming for consultations armed with articles researched on the Internet and other sources describing new treatments and medications. In many cases, these patients are demanding a certain therapy or drug and the physicians are complying when medically appropriate.

Because of this market factor, we also promote our products directly to the general population. The audience targeted will be the prostate cancer patient, his spouse, family and care givers. The marketing message to this segment of the market emphasizes the specific advantages of Cs-131, including fewer side effects, less total radiation, and shorter period of radiation. The Company is targeting this market through its website, located at www.isoray.com, advertising in magazines read by prostate cancer patients and their care givers, and through patient advocacy efforts.

Another key element of our strategy is to validate and support all product claims with well-designed and executed clinical studies that support the efficacy and positive patient outcomes of our Cs-131 seed. We intend to sponsor physician-directed studies that will compare the performance of our seeds to Pd-103 and I-125 seeds. During the remainder of 2006 and into 2007, IsoRay plans to continue its collaboration with leading physicians to develop clinical data on the efficacy of Cs-131 seeds. Noted contributors from the medical physics community will be consulted regarding the benefits of brachytherapy using shorter half-life, improved dosimetry, and higher decay energy seeds. Articles will be submitted to professional journals such as *Medical Physics* and the *International Journal of Radiation Oncology, Biology, and Physics*.

Sales and Distribution

According to a recent industry survey, approximately 2,000 hospitals and free standing clinics are currently offering radiation oncology services in the United States. Not all of these facilities offer seed brachytherapy services. These institutions are staffed with radiation oncologists and medical physicists who provide expertise in radiation therapy treatments and serve as consultants for urologists and prostate cancer patients. We target the radiation oncologists and the medical physicists as well as urologists as key clinical decision makers in the type of radiation therapy offered to prostate cancer patients.

IsoRay has a direct sales organization to introduce Cs-131 to radiation oncologists and medical physicists. During 2006, IsoRay expanded its sales force to seven experienced individuals and management intends to hire three more sales people by December 31, 2006. By hiring experienced and successful brachytherapy sales people, the Company reduces the risk of delay in penetrating the market due to a lack of knowledge of the industry or unfamiliarity with the key members of the brachytherapy community.

The initial response to our new isotope from prominent radiation oncologists, medical physicists and urologists in the US has been very positive. As of September 1, 2006, the Company had supplied the ^{131}Cs seed to 36 well-known implant centers strategically located throughout the U.S.

The Company will expand its U.S. sales force as it expands the customer base. If the Company implements its plans to expand outside the U.S. market, it plans to use established distributors in the key markets in these other countries. This strategy should reduce the time and expense required to identify, train and penetrate the key implant centers and establish relationships with the key opinion leaders in these markets. Using established distributors also should reduce the time spent acquiring the proper radiation handling licenses and other regulatory requirements of these markets.

Pricing

Payment for IsoRay products comes from third-party payers including Medicare/Medicaid and private insurance groups. These payers reimburse the hospitals and clinics via well-established payment procedures. On October 31, 2003, as a result of IsoRay's predecessor's filing for an Additional Device Category, CMS (Centers for Medicare and Medicaid Services) approved a HCPCS/CPT code (2633) for Cs-131 brachytherapy seeds. Medicare is the most significant U.S. payer for prostate brachytherapy services, and is the payer in approximately 70% of all U.S. prostate brachytherapy cases. CMS reviews and adjusts outpatient reimbursement on a periodic and ad hoc basis, but no changes are expected for 2006. As of October 1, 2006, the price for our loose seeds was $59 per seed.

Prostate brachytherapy is typically performed in a hospital outpatient setting, and as such, is covered by the CMS Outpatient Prospective Payment System. Currently in 2006, Medicare is reimbursing hospital's out patient departments, Ambulatory Surgery Centers, and approved physician office settings based on patient specific invoices sent from the manufacturer to the provider. The provider then sends the invoice to Medicare for reimbursement based on Medicare's reimbursement methodology for that place of service. Other insurance companies typically have followed CMS' Outpatient Prospective Payment Systems in determining their reimbursement policies. When charges

for the seeds are correctly submitted in the appropriate format to CMS, 100% of the total cost of the seeds is reimbursed to the hospital or clinic by CMS.

Other Information

Customers

Customers representing ten percent or more of total Company sales for the twelve months ended June 30, 2006 include:

Community Hospital of Los Gatos	Los Gatos, CA	20.1% of revenue
Chicago Prostate Cancer Center	Westmont, IL	18.7% of revenue
Mills Peninsula Health Center	San Mateo, CA	10.4% of revenue

The loss of any of these significant customers would have a temporary adverse effect on the Company's revenues, which would continue until the Company located new customers to replace them.

Proprietary Rights

The Company relies on a combination of patent, copyright and trademark laws, trade secrets, software security measures, license agreements and nondisclosure agreements to protect its proprietary rights. Some of the Company's proprietary information may not be patentable.

The Company intends to vigorously defend its proprietary technologies, trademarks, and trade secrets. Members of management, employees, and certain equity holders have previously signed non-disclosure, non-compete agreements, and future employees, consultants, advisors, with whom the Company engages, and who are privy to this information, will be required to do the same. A patent for the Cesium separation and purification process was granted on May 23, 2000 by the U.S. Patent and Trademark Office (USPTO) under Patent Number 6,066,302, with an expiration date of May 23, 2020. The process was developed by Lane Bray, a shareholder of the Company, and has been assigned exclusively to IsoRay. IsoRay's predecessor also filed for patent protection in four European countries under the Patent Cooperation Treaty. Those patents have been assigned to IsoRay.

Our management believes that certain aspects of the IsoRay seed design and construction techniques are patentable innovations. These innovations have been documented in IsoRay laboratory records, and a patent application was filed with the USPTO on November 12, 2003. Certain methodologies regarding isotope production, separation, and seed manufacture are retained as trade secrets and are embodied in IsoRay's procedures and documentation. In June and July of 2004, three patent applications were filed relating to methods of deriving Cs-131 developed by IsoRay employees. The Company is currently working on developing and patenting additional methods of deriving Cs-131 and other isotopes.

There are specific conditions attached to the assignment of the Cs-131 patent from Lane Bray. In particular, the associated Royalty Agreement provides for 1% of gross profit payment from seed sales (gross seed sales price minus direct production cost) to Lane Bray and 1% of gross profit from any use of the Cs-131 process patent for non-seed products. If IsoRay reassigns the Royalty Agreement to another company, these royalties increase to 2%. The Royalty Agreement has an anti-shelving clause which requires IsoRay to return the patent if IsoRay permanently abandons sales of products using the invention.

Effective August 1, 1998, Pacific Management Associates Corporation (PMAC) transferred its entire right, title and interest in an exclusive license agreement with Donald Lawrence to IsoRay, LLC (a predecessor company) in exchange for a membership interest. The license agreement was transferred to IsoRay through a series of mergers and the reverse acquisition.

The terms of the license agreement require the payment of a royalty based on the Net Factory Sales Price, as defined in the agreement, of licensed product sales. Because the licensor's patent application was ultimately abandoned, only a

1% “know-how” royalty based on Net Factory Sales Price, as defined, remains applicable. To date, there have been no product sales incorporating the licensed technology and there is no royalty due pursuant to the terms of the agreement. Management believes that because this technology is not presently being used and believes it will not be used in the future that no royalties will be paid under this agreement.

Research And Development

From inception (December 17, 2001) through June 30, 2006, IsoRay and its predecessor companies incurred more than $2.25 million in costs related to research and development activities. The Company expects to continue to have employees working on activities that will be classified as research or development for the foreseeable future.

Government Regulation

The Company's present and future intended activities in the development, manufacture and sale of cancer therapy products are subject to extensive laws, regulations, regulatory approvals and guidelines. Within the United States, the Company's therapeutic radiological devices must comply with the U.S. Federal Food, Drug and Cosmetic Act, which is enforced by the FDA. The Company is also required to adhere to applicable FDA regulations for Good Manufacturing Practices, including extensive record keeping and periodic inspections of manufacturing facilities. IsoRay's predecessor obtained FDA 510(k) clearance in March 2003 to market the IsoRay ^{131}Cs seed for the treatment of localized solid tumors.

Specifically, in the United States, the FDA regulates, among other things, new product clearances and approvals to establish the safety and efficacy of these products. We are also subject to other federal and state laws and regulations, including the Occupational Safety and Health Act and the Environmental Protection Act.

The Federal Food, Drug, and Cosmetic Act and other federal statutes and regulations govern or influence the research, testing, manufacture, safety, labeling, storage, record keeping, approval, distribution, use, reporting, advertising and promotion of such products. Noncompliance with applicable requirements can result in civil penalties, recall, injunction or seizure of products, refusal of the government to approve or clear product approval applications, disqualification from sponsoring, or conducting clinical investigations, prevent us from entering into government supply contracts, withdrawal of previously approved applications and criminal prosecution.

Approval of new medical devices is a lengthy procedure and can take a number of years and the expenditure of significant resources. There is a shorter FDA review and clearance process, the premarket notification process, or the 510(k) process, whereby a company can market certain medical devices that can be shown to be substantially equivalent to other legally marketed devices. We have been able to achieve market clearance for our ^{131}Cs seed using the 510(k) process.

In the United States, medical devices are classified into three different categories over which FDA applies increasing levels of regulation: Class I, Class II and Class III. Most Class I devices are exempt from premarket notification (510(k)); most Class II devices require premarket notification (510(k)) and most Class III devices require premarket approval. Our ^{131}Cs seed is a Class II device and has received 510(k) clearance.

As a registered medical device manufacturer with the FDA, we are subject to inspection to ensure compliance with their current Good Manufacturing Practices, or cGMP. These regulations require that we and any of our contract manufacturers design, manufacture and service products and maintain documents in a prescribed manner with respect to manufacturing, testing, distribution, storage, design control and service activities. Modifications or enhancements that could significantly affect the safety or effectiveness of a device or that constitute a major change to the intended use of the device require a new 510(k) notice for any product modification. We may be prohibited from marketing the modified product until the 510(k) notice is cleared by the FDA.

The Medical Device Reporting regulation requires that we provide information to the FDA on deaths or serious injuries alleged to be associated with the use of our devices, as well as product malfunctions that are likely to cause or contribute to death or serious injury if the malfunction were to recur. Labeling and promotional activities are regulated by the FDA and, in some circumstances, by the Federal Trade Commission.

As a medical device manufacturer, we are also subject to laws and regulations administered by governmental entities at the federal, state and local levels. For example, our facility is licensed as a medical product manufacturing facility in the State of Washington and is subject to periodic state regulatory inspections. Our customers are also subject to a wide variety of laws and regulations that could affect the nature and scope of their relationships with us.

In the United States, as a manufacturer of medical devices and devices utilizing radioactive byproduct material, we are subject to extensive regulation by not only federal governmental authorities, such as the FDA, but also by state and local governmental authorities, such as the Washington State Department of Health, to ensure such devices are safe and effective. In Washington State, the Department of Health, by agreement with the federal Nuclear Regulatory Commission ("NRC"), regulates the possession, use, and disposal of radioactive byproduct material as well as the manufacture of radioactive sealed sources to ensure compliance with state and federal laws and regulations. Our ^{131}Cs brachytherapy seeds constitute both medical devices and radioactive sealed sources and are subject to these regulations. Because Cesium is a new radioactive isotope, centers which sell our ^{131}Cs seeds must each amend their radioactive licenses and re-file these amended licenses with each state in which they operate and this approval process may take between four months to one year.

Moreover, our use, management and disposal of certain radioactive substances and wastes are subject to regulation by several federal and state agencies depending on the nature of the substance or waste material. We believe that we are in compliance with all federal and state regulations for this purpose.

Washington voters approved Initiative 297 in late 2004, which may impose additional restrictions on sites at which mixed radioactive and hazardous wastes are generated and stored, including PNNL, as it prohibits additional mixed radioactive and hazardous waste from being brought to sites, such as PNNL, until the existing on-site waste conforms to all state and federal environment laws. In June 2006, a U.S. District Court judge ruled that Initiative 297 was unconstitutional in its entirety. However, the state of Washington has indicated that it would appeal the decision. If this decision is overturned and Initiative 297 is enforced it could impact our ability to manufacture our seeds, whether at PNNL or elsewhere in the State of Washington.

Seasonality

The Company is now aware of a seasonal influence on its business. During the months of July and August, physicians take vacations and defer seed implantation surgeries causing a momentary decline in revenue which management believes is ultimately realized later.

Employees

As of September 1, 2006, IsoRay employed 53 full-time individuals and one part-time individual. The Company's future success will depend, in part, on its ability to attract, retain, and motivate highly qualified technical and management personnel. From time to time, the Company may employ independent consultants or contractors to support its research and development, marketing, sales and support and administrative organizations. None of the Company's employees are represented by any collective bargaining unit. IsoRay estimates that successful implementation of its growth plan would result in up to 30 additional employees by the end of calendar year 2007.

Competition

The Company competes in a market characterized by technological innovation, extensive research efforts and significant competition. In general, the IsoRay seed competes with conventional methods of treating localized cancer, including, but not limited to, radical prostatectomy and external beam radiation therapy which includes intensity modulated radiation therapy, as well as competing permanent brachytherapy devices. RP has historically represented the most common medical treatment for early-stage, localized prostate cancer. EBRT is also a well-established method of treatment and is widely accepted for patients who represent a poor surgical risk or whose prostate cancer has advanced beyond the stage for which surgical treatment is indicated. Management believes that if general conversion from these treatment options (or other established or conventional procedures) to the IsoRay seed does occur, such conversion will likely be the result of a combination of equivalent or better efficacy, reduced incidence of side effects and complications, lower cost, quality of life issues and pressure by health care providers and patients.

29

History has shown the advantage of being the first to market a new brachytherapy product. For example, Oncura currently claims nearly 30% of the market with the original I-125 seed. Theragenics Corp., which introduced the original Pd-103 seed, is second with a nearly 30% market share. The Company believes it may obtain a similar and significant advantage by being the first to introduce a Cs-131 seed.

The Company's patented Cs-131 separation process is likely to provide us a sustainable competitive advantage in this area. Production of Cs-131 also requires specialized facilities (hot cells) that represent high cost and long lead time if not readily available. In addition, a competitor would need to develop a method for isotope attachment and seed assembly, would need to conduct testing to meet NRC and FDA requirements, and would need to obtain regulatory approvals before marketing a competing device.

Several companies have obtained regulatory approval to produce and distribute Palladium-103 and Iodine-125 seeds, which compete directly with our seed. Six of those companies represent nearly 100% of annual brachytherapy seed sales worldwide: CR Bard, Inc., Oncura (part of Galil), Theragenics Corp., North American Scientific, Inc., Mentor Corp., and Best Medical International, Inc. The top three - CR Bard, Inc., Oncura and Theragenics - currently garner over 80% of annual sales.

It is possible that three or four of the current I-125 or Pd-103 seed manufacturers (e.g., Oncura, Theragenics, North American Scientific, etc.) are capable of producing and marketing a Cs-131 seed, but none have reported efforts to do so. Best Medical obtained a seed core patent in 1992 that named 10 different isotopes, including Cs-131, for use in their seeds. Best Medical received FDA 510(k) clearance to market a Cs-131 seed on June 6, 1993 but has failed to produce any products for sale.

Additional Growth Opportunities

The Cs-131 isotope has the performance characteristics to be a technological platform for sustained long-term growth. The most immediate opportunities are introducing Cs-131 to Canada, Europe and other international markets, introducing Cs-131-based therapies for other forms of solid tumors focusing first on breast tumors, and through the marketing of other radioactive isotopes. These growth initiatives are in the early stages of planning and appear to be significant incremental opportunities.

The Company plans to introduce Cs-131 initially into Europe and later into other international markets through partnerships and strategic alliances with channel partners for manufacturing and distribution. Another advantage of the Cs-131 isotope is its potential applicability to other cancers and other diseases. Cs-131 has FDA clearance to be used for treatments for a broad spectrum of cancers including breast, brain, lung, and liver cancer, and the Company believes that a major opportunity exists as an adjunct therapy for the treatment of breast cancer. Preliminary discussions have begun with prominent physicians regarding the use of Cs-131-based therapies for the treatment of lung, pancreatic and brain cancer. There is the opportunity to develop and market other radioactive isotopes to the US market, and to market the Cs-131 isotope itself, separate from its use in our seeds. The Company is also in the preliminary stages of exploring alternate methods of delivering our isotopes to various organs of the body, as it may be advantageous to use delivery methods other than a titanium-encapsulated seed to deliver radiation to certain organs.

SELLING SHAREHOLDERS

The following table details the name of each selling shareholder (including, for entity shareholders, the name of the natural person controlling the selling shareholder in parentheses), the number of shares owned by that selling shareholder, and the number of shares that may be offered by each selling shareholder for resale under this prospectus. The selling shareholders may sell up to 4,637,100 shares of our common stock from time to time in one or more offerings under this prospectus, of which 4,004,264 are shares of common stock currently held by the selling shareholders, 43,219 are shares of common stock issuable upon the conversion of preferred stock held by the selling

shareholders (including 6,967 shares of common stock issuable upon the conversion of preferred stock receivable upon the exercise of warrants to purchase preferred stock), 371,163 are shares of common stock issuable upon the exercise of warrants held by the selling shareholders, and 218,454 are shares of common stock issuable upon the exercise of options held by the selling shareholders. Because each selling shareholder may offer all, some or none of the shares it holds, and because, based upon information provided to us, there are currently no agreements, arrangements, or understandings with respect to the sale of any of the shares, no definitive estimate as to the number of shares that will be held by each selling shareholder after the offering can be provided. The following table has been prepared on the assumption that all shares offered under this prospectus will be sold to parties unaffiliated with the selling shareholders. Except as indicated below, no selling shareholder nor any of their affiliates have held a position or office, or had any other material relationship, with us.

Name	Beneficial Ownership Before the Offering (1)	Percentage of Common Stock Owned Before Offering	Shares of Common Stock Included in Prospectus (2)	Shares of Common Stock Issuable Upon Conversion or Exercise of Preferred Stock, Options or Warrants Included in Prospectus (3)	Exercise Price of Option or Warrant Included in Prospectus	Grant Date of Option or Warrant Included in Prospectus	Term of Option or Warrant Included in Prospectus	Total Shares of Common Stock Included in Prospectus	Beneficial Ownership After the Offering (4)	Percentage of Common Stock Owned After Offering (4)
Alan E. Waltar and Anna E. Waltar, Trustees of the Alan E. and Anna E. Waltar Trust U/A DTD 7/3/98	57,982	*	7,480		-			7,480	50,502	*
All Seasons Painting Co. (Richard Rusch)	21,327	*	4,265		-			4,265	17,062	*
Anastassatos, Efthimios Christopher	14,819	*	4,819		-			4,819	10,000	*
Babcock, Dwight W. (5)	102,207	*	22,962		-			22,962	79,245	*
Babcock, Elaine	2,695	*	539		-			539	2,156	*
Bales, Matt	5,178	*	1,036		-			1,036	4,142	*
Bartholomew, Richard & Suzanne	17,772	*	3,554		-			3,554	14,218	*
Bates, Christopher Matthew	4,265	*	853		-			853	3,412	*
Bates, Robert and Lisa	47,873	*	16,335		-			16,335	31,538	*
Bavispe Limited Partnership (Robert Caylor)	126,283	*	14,235		-			14,235	112,048	1.28%
Bear Stearns Securities	10,950	*	10,950		-			10,950	-	*

Corporation Custodian Michael Eric Jacobson IRA[9]											
Bear Stearns Securities Corporation Custodian Mishawn Marie Nelson IRA	10,950	*	10,950		-			10,950	-	*
Bear Stearns Securities Corporation Custodian Steven Mark Nelson IRA[9]	10,950	*	10,950		-			10,950	-	*
Berglin, Bruce D. and Doneda E.	15,475	*	5,475		-			5,475	10,000	*
Berglund, Greg	35,769	*	15,769		-			15,769	20,000	*
Betty McCormick Trust	7,108	*	1,422		-			1,422	5,686	*
Bock, Daniel	18,072	*	18,072		-			18,072	0	*
Boesel, John[9]	1,084	*		1,084	$ 0.59 - 2.37	3/25/2005	3/25/2007	1,084	0	*

Boggess, Thomas S. IV and Jonette D.	36,145	*	36,145		-			36,145	-	*
Boland, John C.	28,437	*	5,687		-			5,687	22,750	*
Boland, John L.	116,098	*	10,384	7,109				17,493	98,605	1.13%
Bonanza, LLC (David and Donna Whitehead)	39,672	*	25,454		-			25,454	14,218	*
Boster, Gary	29,399	*	29,399		-			29,399	-	*
Bragdon, George and Barbara	2,105	*	421		-			421	1,684	*
Brown Larsen, Pamela	14,218	*		2,844				2,844	11,374	*
Brown, Alexis and Alan	4,211	*	842		-			842	3,369	*
Brown, Anne J.	14,218	*	2,844		-			2,844	11,374	*
Brown, Garrett N. (6)	552,237	4.11%	31,546		-			31,546	520,691	5.95%
Bunting, Brandt E. & Collen M.	38,435	*	5,687		-			5,687	32,748	*
Burstein, Fred	290,016	2.16%	290,016		-			290,016	-	*
Burstein, Fred IRA	16,425	*	16,425		-			16,425	-	*
Cangiane, Lorraine and Gilson, Bernard	10,950	*	10,950		-			10,950	-	*
Carroll, Bridget M.	14,218	*	14,218		-			14,218	-	*
Chapman, Milton A	48,782	*	9,756		-			9,756	39,026	*
Clark, R. Jeanne	25,541	*	4,878	230				5,108	20,433	*
Clement, James H.	20,046	*	7,642	747	$ 1.06	2/28/2005	2/28/2007	8,388	11,657	*
Clerf, Craig	1,300	*	260		-			260	1,040	*
Clerf, Robert	1,950	*	390		-			390	1,560	*
Clerf, Roger	3,251	*	650		-			650	2,601	*
Cohen, Loren	26,426	*	16,426		-			16,426	10,000	*
Collier Living Trust	44,885	*	7,545		-			7,545	37,340	*
Cone-Gilreath Law Firm(Douglas Nicholson)	48,782	*	9,756		-			9,756	39,026	*
Conner III, Thomas E.	33,698	*	4,740		-			4,740	28,958	*
Craddock, Steven Lee	7,229	*	7,228		-			7,228	1	*
Daniels, Frederic R. & Anita C. Family Trust	72,477	*	9,597	2,488	$ 1.06	2/28/2005	2/28/2007	12,085	60,391	*
Daswick, Gregory	10,663	*	2,133		-			2,133	8,530	*
Daswick, Michael and Kimberly	62,943	*	8,589		-			8,589	54,354	*

DFC 401(k) Profit Sharing Plan FBO Benjamin J. Schwartz	24,882	*	5,564	-	5,564	19,318	*
Douglas D. Thornton Family Trust	308,957	2.30%	61,791	-	61,791	247,166	2.82%
Dunlop, Michael[5] [6]	286,618	2.13%	24,746	-	24,746	261,872	2.99%
Ecclestone, Andrew	59,842	*	59,842	-	59,842	-	*
Edmund, Robert	3,369	*	674	-	674	2,695	*
Engels, Kevin F.	18,423	*	1,685	-	1,685	16,738	*

Fabri, Jon	43,423	*	1,685		-			1,685	41,738	*
Falls Rd LLC (Paul Hatch)	23,698	*	4,740		-			4,740	18,958	*
Feder, Dr. Henry	14,218	*	2,844		-			2,844	11,374	*
Feidelberg, Steven O. and Codini, Anna-Maria, Trustees of the Feidelberg-Codini Family Trust U/T/A dated April 15, 2003	6,024	*	6,024		-			6,024	-	*
Fernandez, Leslie	3,688	*		738				738	2,950	*
Ferrick, Patrick N.	9,479	*	1,896		-			1,896	7,583	*
Fookes, Larry	46,529	*	3,577	22,914	$ 1.19	8/1/2005	7/31/2015	26,491	20,038	*
Fookes, Sharon	3,553	*	711		-			711	2,842	*
Forest Ridge Properties, Ltd. (Beverly Unger)	12,441	*	1,244	1,244	$ 1.40	2/28/2005	2/28/2007	2,488	9,953	*
Forsman, John Arvid	14,218	*		2,844				2,844	11,374	*
Freeman, Kevin	22,440	*	2,488		-			2,488	19,952	*
Gainer, Ronald G. & Linda J.	14,218	*	2,844		-			2,844	11,374	*
Gaines, Ira J.	30,950	*	10,950		-			10,950	20,000	*
Galanty, Thomas M.	10,950	*	10,950		-			10,950	-	*
Giammattei, Shawn and Peggy	252	*	50		-			50	202	*
Girard, Roger E. [5] [6]	852,301	6.35%	73,285		-			73,285	779,016	8.90%
Gold Trust Co FBO Don Goeckner IRA	86,733	*	17,346		-			17,346	69,387	*
Goldsmith, Hugh G.	18,959	*		3,792				3,792	15,167	*
Goodrich, Daniel A	10,950	*	10,950		-			10,950	-	*
Granger, Jamie	10,529	*		2,106				2,106	8,423	*
Griffith, Richard and Barbara	17,772	*	3,554		-			3,554	14,218	*
Harry and Adeline Silverman Foundation	20,000	*	20,000		-			20,000	-	*
Hartley, James N.	9,479	*		1,896				1,896	7,583	*
Hedstrom, Gary A.	12,527	*	505					505	12,022	*
Hernandez, Jesus and Melissa	16,955	*	5,581					5,581	11,374	*
Holcomb, Sr,, Hampton A.	10,950	*	10,950					10,950	-	*
Hostetler Living Trust	18,679	*	1,895	1,895				3,790	14,889	*
Huls, Michael, Roth IRA	33,333	*	33,000		-			33,000	333	*
Intellegration, LLP (Christopher Smith)	35,526	*	25,526		-			25,526	10,000	*
Jackson, John J. & Ellen K.	14,218	*	2,844		-			2,844	11,374	*
James J. Minder & Susan A. Davis Family Trust	10,950	*	10,950		-			10,950	-	*
Johnson, Carolyn M.	8,422	*	1,684		-			1,684	6,738	*
Johnson, Tom and Lindsay	8,422	*	1,684		-			1,684	6,738	*

Kaiser, James S.	10,950	*	10,950	-	10,950	-	*

33

Kalos, Shaun and Cathy	2,105	*	421		-			421	1,684	*
Kang, Dr. Young S.	16,260	*	3,252		-			3,252	13,008	*
Kaser, Kathryn and John Clark Kaser	710	*	142		-			142	568	*
Kaser, Kathryn and John Lucas Kaser	1,065	*	213		-			213	852	*
Kaser, Kathryn and Jordan Rae Emmil	1,065	*	213		-			213	852	*
Kaser, Kathryn and Kenneth Tyler Emmil	1,065	*	213		-			213	852	*
Kaser, Kathryn and Laura Kaser Emmil	710	*	142		-			142	568	*
Kaser, Kathryn and Levi Clark Kaser	1,065	*	213		-			213	852	*
Kauffman, Robert R. (5)	110,950	*	10,950		-			10,950	100,000	1.14%
Kelly, Gerald	4,211	*	842		-			842	3,369	*
Kelly, Richard	1,675	*		1,675	$ .59 - 2.37	3/25/2005	3/25/2007	1,675	-	*
Kemeny, Matthias D.	10,950	*	10,950		-			10,950	-	*
Kennedy, Patrick H. & Bonnie M. (6)	54,506	*	10,941		-			10,941	43,565	*
Klostermann, Bill and Donna	16,425	*	16,425		-			16,425	-	*
Kocherer, Rosalee	2,105	*	421		-			421	1,684	*
Konietzko, Neil	198,423	1.48%	1,685		-			1,685	196,738	2.25%
Korb, Leroy J.	248,368	1.85%	45,530	20,716	$ 1.19	8/1/2005	7/31/2015	66,246	182,122	2.08%
Koslowski, Barbara	8,129	*	1,626		-			1,626	6,503	*
Kryszek, Jakob	40,522	*	8,104		-			8,104	32,418	*
Lambert, Pat(9)	115,444	*	33,000	16,590	$ .59 - 2.37	3/25/2005	3/25/2007	49,590	65,854	*
Lane A. & Gwen M. Bray Trust(6)	386,997	2.88%	71,142		-			71,142	315,855	3.61%
Lanza, Costantio IRA Charles Schwab & Co., Inc. Custodian	10,950	*	10,950		-			10,950	-	*

Larson, Damian	14,320	*	2,864		-			2,864	11,456	*
Lavoy, Thomas[5]	108,423	*	1,685		-			1,685	106,738	1.22%
Lawrence Family Trust[6]	888,529	6.62%	177,706		-			177,706	710,823	8.12%
Lebowitz Living Trust	142,188	1.06%	28,438		-			28,438	113,750	1.30%
Little, John W. and Marina Zeiber	9,639	*	6,024		-			6,024	3,615	*
Livingston, James P. & Keri Segna	24,218	*	2,844		-			2,844	21,374	*
Lord, Brandon	421	*	84		-			84	337	*
Lord, Leonard L. and Patricia G.	4,211	*	842		-			842	3,369	*
MacKay, Daniel P	18,015	*	3,603		-			3,603	14,412	*
Madsen, James L.	166,706	1.24%	27,130	$	1.19	8/1/2005	7/31/2015	27,130	139,576	1.59%
Majchrowski, Thomas	75,401	*	15,080		-			15,080	60,321	*
Marlin Hull LLC (Michael Huls)	169,422	1.26%	169,422		-			169,422	-	*

Martin, Leslie A	14,218	*		2,844				2,844	11,374	*
Matsock, Mark	113,721	*	10,950	25,270	$ 4.15	7/15/2005	7/15/2007	36,221	77,500	*
McInnis, Greg and Cynthia Family Trust	7,228	*	7,228		-			7,228	1	*
McKenna, Jean	16,260	*	3,252		-			3,252	13,008	*
Mebesius, William	10,950	*	10,950		-			10,950	-	*
Meyers Associates LP [8]	49,744	*		16,590	$ .59 - 2.37	3/25/2005	3/25/2007	16,590	33,154	*
Miller, Thomas F.	289,159	2.15%	289,159		-			289,159	-	*
Moore, Terry R	15,426	*	7,464		-			7,464	7,962	*
Moseley, Gerard F.	9,526	*	1,905		-			1,905	7,621	*
Moss, Lynette F.	44,438	*	15,249		-			15,249	29,189	*
Mountain View Asset Management (Andrew Eccleston)	24,096	*	24,096		-			24,096	-	*
MountainView Opportunistic Growth Fund LP (Andrew Eccleston)	94,223	*	30,745		-			30,745	63,478	*
Muldoon, William G and Janet L	126,854	*	26,022	2,488	$ 1.06	2/28/2005	2/28/2007	28,510	98,344	1.12%
Murphy, Tom	3,369	*	674		-			674	2,695	*
Newman, Bruce W. & Jeannie G.	16,587	*	3,318		-			3,318	13,269	*
Nichols, Dale and Kathyrn E. Kaser	17,772	*	3,554		-			3,554	14,218	*
Oak Ridge Financial Group Inc. [8]	3,285	*		3,285	$ .59 - 2.37	3/25/2005	3/25/2007	3,285	-	*
Oliver, Marlene	58,322	*		44,002	$ 1.19	8/1/2005	7/31/2015	44,002	14,320	*
Olson, Claire A & Mary Ann	14,218	*	2,844		-			2,844	11,374	*
Onwuegbusi, Charles	10,950	*	10,950		-			10,950	-	*
Ott, Suzann J & Dennis L.	40,546	*	7,109		-			7,109	33,437	*
Palitz, Louis and Ruth	17,772	*	3,554		-			3,554	14,218	*
Peterson, Jerry	38,326	*	38,326		-			38,326	-	*
Pinnacle International	177,736	1.32%	7,109	28,438	$ 0.70	11/29/2005	10/30/2006 -	35,547	142,189	1.62%

Holdings LLC (Cliff Aaron)							03/30/2007			
Press, Richard	227,652	1.70%	45,530		-			45,530	182,122	2.08%
Quatsch Ventures, LLC (Stephen Boatwright) [5]	84,236	*		84,236	$ 1.19	8/1/2005	7/31/2015	84,236	-	*
Reynolds, J. Scott	6,024	*	6,024		-			6,024	-	*
Roberts, Cory B.	1,263	*	253		-			253	1,010	*
Roberts, Donald	4,211	*	842		-			842	3,369	*
Roberts, Elizabeth	1,263	*	253		-			253	1,010	*
Roberts, Joshua	2,947	*	589		-			589	2,358	*

Roberts, Leslie and Rex Armstrong	10,950	*	10,950			-			10,950	-	*
Rogers, Philip and Stephanie[7]	8,245	*	8,245			-			8,245	-	*
Roman, Patrick and Nichole	1,052	*	210			-			210	842	*
Ronald L and Susan R. Kathren Trust	5,171	*		5,170	$ 1.19		8/1/2005	7/31/2015	5,170	1	*
Root, R. William, Jr.	176,157	1.31%	37,131			-			37,131	139,026	1.59%
Roozen, Richard and Jaynie	5,474	*	5,474			-			5,474	-	*
Rothstein, Alan F.	35,546	*	7,109			-			7,109	28,437	*
Rothstein, Lawrence R. and Deborah E.	74,096	*	24,096			-			24,096	50,000	*
Rowland, Chris C.	10,475	*	5,475			-			5,475	5,000	*
Rowland, Joseph Perry Jr.	5,475	*	5,475			-			5,475	-	*
Ruth Schwartz Trust	60,716	*	12,143			-			12,143	48,573	*
Safdi Investments Limited Partnership (Rosemary Safdi)	62,921	*	34,484			-			34,484	28,437	*
Saito, Dr. Robert N.	14,218	*	2,844			-			2,844	11,374	*
Sanders Family Limited Partnership III (Vernon Sanders)	54,166	*	20,472			-			20,472	33,694	*
Scallen, Thomas K. [7]	329,942	2.46%	329,942			-			329,942	-	*
Schatzmair, Ralph	46,057	*	4,211			-			4,211	41,846	*
Schenter, Robert	218,860	1.63%	35,489	41,416	$ 1.19		8/1/2005	7/31/2015	76,905	141,955	1.62%
Schipfer, John D., Jr.	5,263	*	1,053			-			1,053	4,210	*
Schloz Family 1998 Trust	10,950	*	10,950			-			10,950	-	*
Schloz, Stanley	33,333	*	33,000			-			33,000	333	*
Schreifels, Donald B	140,943	1.05%	27,465			-			27,465	113,478	1.30%

Schwartz, Jacob	15,950	*	10,950			-			10,950	5,000	*
Segna, Donald R & Joan F. [6]	511,213	3.81%	96,515			-			96,515	414,698	4.74%
Segna, Jan M	14,218	*	2,844			-			2,844	11,374	*
Segna, Todd D. & Deborah L.J. Chew	21,327	*	4,265			-			4,265	17,062	*
Selma Teicher Trust, Stuart Teicher, Trustee	4,819	*	4,819			-			4,819	-	*
Shukov, George	227,652	1.70%	45,530			-			45,530	182,122	2.08%
Siddall, John W.	104,752	*	54,752			-			54,752	50,000	*
Sidibe, Aissata	35,546	*		7,109					7,109	28,437	*
Silverman, Anthony	442,627	3.30%	298,236	139,391	$	4.15	7/15/2005	7/15/2007	437,627	5,000	*
Silverman, Anthony (shares held in escrow)	50,000	*	49,334			-			49,334	666	*
Silverman, Anthony IRA Rollover	304,753	2.27%	54,753			-			54,753	250,000	2.86%
Silverman, Jeff	72,776	*		6,110	$	.59 - 2.37	3/25/2005	3/25/2007	6,110	66,666	*
Silverman, Kay	24,096	*	24,096			-			24,096	-	*

Silverman, Kay S. Revocable Trust	32,851	*	32,851			-			32,851	-	*
Smith, Albert[5]	171,447	1.28%	21,789	12,500	$	0.00	10/14/2005	10/13/2007	34,289	137,158	1.57%
Smith, Thomas and Sheila	31,718	*	671						671	31,047	*
Source Capital Group, Inc.[8]	10,584	*		1,084	$	0.59 - 2.37	3/25/2005	3/25/2007	1,084	9,500	*
Stack, Peter R and Judy J	10,950	*	10,950			-			10,950	-	*
Stealth Investments, Inc. (James Scannell)	44,876	*	27,376			-			27,376	17,500	*
Stenson, Calvin B.	8,423	*	1,685			-			1,685	6,738	*
Sterne Agee and Leach, Inc. C/F Jill Ryan IRA	5,474	*	5,474			-			5,474	-	*
Sterne Agee and Leach, Inc. C/F Robert Ryan IRA	10,950	*	10,950			-			10,950	-	*
Sterne Agee Leach FBO Barry K Griffith IRA	10,950	*	10,950			-			10,950	-	*
Stewart, James P. and Patricia A.	10,950	*	10,950			-			10,950	-	*
Stiller, David L & Bonita L.	54,740	*	10,451	497	$	1.06	2/28/2005	2/28/2007	10,949	43,792	*
Stokes, William J.	78,052	*	15,610			-			15,610	62,442	*
Strain, Audrey	4,975	*	995			-			995	3,980	*
Swanberg, Daniel L. & Joni A.	9,479	*	1,896			-			1,896	7,583	*
Swanberg, David J. & Janet C. [5] [6]	448,827	3.34%	58,047			-			58,047	390,780	4.46%
TEC Ministries	10,000	*	10,000			-			10,000	-	*
The Alan Gess Living Trust	36,327	*	4,265			-			4,265	32,062	*
The Anderson Family Trust UTD 12/20/93	21,059	*	4,212			-			4,212	16,847	*
The Bates Revocable Trust, Fred and Linda Bates, Trustees	37,144	*	6,283			-			6,283	30,861	*
The Lanzer Revocable Living Trust	18,072	*	18,072			-			18,072	-	*
The Nancy R. McCormick	4,819	*	4,819			-			4,819	-	*

Family Trust U/A dated June 14,2002, John E McCormick, Trustee											
The Smart Family Trust	15,450	*	6,469		-			6,469	8,981	*
Thomas, Cam	56,875	*	11,375		-			11,375	45,500	*
Thompson, April	4,975	*	995		-			995	3,980	*
Thompson, Randy	4,975	*	995		-			995	3,980	*
Thompson, William and Karen Trust [6]	14,218	*		2,844				2,844	11,374	*
Turchetta, Anthony J	14,218	*	2,844		-			2,844	11,374	*
Turnbull, Timothy L.	8,530	*	1,706		-			1,706	6,824	*
UBS Financial Services IRA FBO Robert R Kauffman [5]	32,851	*	32,851		-			32,851	-	*
Vencore LLC	5,692	*		5,691	$ 4.15	5/10/2004	5/10/2008	5,692	-	*
Weber, Ronald	4,211	*	842		-			842	3,369	*

Weinstein, Ronald A 2004 Living Trust	9,479	*	1,896		-			1,896	7,583	*
Weinstein, Ronald Alan and Cathy Lynn	99,765	*	9,953		-			9,953	89,812	1.03%
West, Ron H.	4,211	*	842		-			842	3,369	*
Whalen, Ryan and Jennifer	1,052	*	210		-			210	842	*
Wilkie, David J	8,423	*	1,685	-	-			1,685	6,738	*
William Wesley Thompson & Karen Louise Thompson Revocable Trust Dated January 6, 1999 (6)	21,464	*	4,293	-				4,293	17,171	*
Wynnjam Corp. (Nancy Lake)	107,057	*	10,950	96,106	$ 4.15	7/15/2005	7/15/2007	107,057	-	*
Zaragosa, Ernesto	26,847	*		16,847	$ 4.15	7/15/2005	7/15/2007	16,847	10,000	*
Zielke, David C. and Diane M.	34,123	*	6,825		-			6,825	27,298	*
Zimmerman, Paul	21,327	*	4,265		-			4,265	17,062	*
Totals			4,004,264	632,830				4,637,100		

* Less than one percent.

(1) The number and percentage of shares beneficially owned is determined in accordance with Rule 13d-3 of the Securities Exchange Act of 1934, as amended, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rule, beneficial ownership includes any shares as to which the selling shareholder has sole or shared voting power or investment power and also any shares that the selling shareholder has the right to acquire within 60 days.

(2) The actual number of shares of common stock offered in this prospectus, and included in the registration statement of which this prospectus is a part, includes such additional number of shares of common stock as may be issued or issuable upon conversion of the preferred stock and exercise of the options and warrants, as applicable, by reason of any stock split, stock dividend or similar transaction involving the common stock, in accordance with Rule 416 under the Securities Act of 1933, as amended.

(3) This column includes all shares of common stock issuable upon conversion of preferred stock and exercise of options and warrants, as applicable, held by the named selling shareholder.

(4) Assumes that all securities registered will be sold.

(5) These selling shareholders are our executive officers and directors, or are entities controlled by our executive officers and directors.

(6) These selling shareholders are executive officers and directors of our subsidiary, or are entities controlled by the executive officers and directors of our subsidiary.

(7) These selling shareholders are our former executive officers and directors.

(8) These selling shareholders are broker/dealers.

(9) These selling shareholders are affiliates of broker/dealers.

We are registering certain of the shares listed above pursuant to contractual registration obligations. We entered into a Registration Rights Agreement dated June 30, 2005 with certain shareholders and debenture holders, which provided demand and piggyback registration rights. Our subsidiary entered into a Registration Rights Agreement dated October 15, 2004, the obligations of which we have assumed, pursuant to which certain shareholders (then shareholders of our subsidiary) were granted piggyback registration rights. In addition to these contractual registration obligations, our Board of Directors, at its October 5, 2005 meeting, voted in favor of registering 20% of all shares of common stock acquired by former IsoRay Medical shareholders on or before October 1, 2004, 20% of all other securities that could be converted or exercised into common stock and were acquired by former IsoRay Medical shareholders on or before October 1, 2004, and 100% of all options granted under the Amended and Restated 2005 Stock Option Plan that were not registered in the Company's Form S-8 filed on August 19, 2005.

Part II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 27. Exhibits.

(except as otherwise indicated, all exhibits were previously filed)

Exhibit #	**Description**
2.1	Merger Agreement dated as of May 27, 2005, by and among Century Park Pictures Corporation, Century Park Transitory Subsidiary, Inc., certain shareholders and IsoRay Medical, Inc., incorporated by reference to the Form 8-K filed on August 3, 2005.
2.2	Certificate of Merger, filed with the Delaware Secretary of State on July 28, 2005, incorporated by reference to the Form 8-K filed on August 3, 2005.
3.1	Articles of Incorporation and By-Laws are incorporated by reference to the Exhibits to the Registrant's Registration Statement of September 15, 1983.
3.2	Certificate of Designation of Rights, Preferences and Privileges of Series A and B Convertible Preferred Stock, filed with the Minnesota Secretary of State on June 29, 2005, incorporated by reference to the Form 8-K filed on August 3, 2005.
3.3	Restated and Amended Articles of Incorporation, incorporated by reference to the Form 10-KSB filed on October 11, 2005.
4.2	Form of Lock-Up Agreement for Certain IsoRay Medical, Inc. Shareholders, incorporated by reference to the Form 8-K filed on August 3, 2005.
4.3	Form of Lock-Up Agreement for Anthony Silverman, incorporated by reference to the Form 8-K filed on August 3, 2005.
4.4	Form of Registration Rights Agreement among IsoRay Medical, Inc., Century Park Pictures Corporation and the other signatories thereto, incorporated by reference to the Form 8-K filed on August 3, 2005.
4.5	Form of Escrow Agreement among Century Park Pictures Corporation, IsoRay Medical, Inc. and Anthony Silverman, incorporated by reference to the Form 8-K filed on August 3, 2005.
4.6	Form of Escrow Agreement among Century Park Pictures Corporation, IsoRay Medical, Inc. and Thomas Scallen, incorporated by reference to the Form 8-K filed on August 3, 2005.

4.7	Amended and Restated 2005 Stock Option Plan, incorporated by reference to the Form S-8 filed on August 19, 2005.
4.8	Amended and Restated 2005 Employee Stock Option Plan, incorporated by reference to the Form S-8 filed on August 19, 2005.
4.9	Form of Registration Right Agreement among IsoRay Medical, Inc., Meyers Associates, L.P. and the other signatories thereto, dated October 15, 2004, incorporated by reference to the Form SB-2 filed on November 10, 2005.

4.10	Form of Registration Rights Agreement among IsoRay, Inc., Meyers Associates, L.P. and the other signatories thereto, dated February 1, 2006, incorporated by reference to the Form SB-2/A1 filed on March 24, 2006.
4.11	Form of IsoRay, Inc. Common Stock Purchase Warrant, incorporated by reference to the Form SB-2/A1 filed on March 24, 2006.
4.12	2006 Director Stock Option Plan, incorporated by reference to the Form S-8 filed on August 18, 2006.
4.13	Form of Registration Rights Agreement among IsoRay, Inc. and the other signatories thereto, dated August 9, 2006, incorporated by reference to the Form 8-K filed on August 18, 2006.
4.14	Form of IsoRay, Inc. Common Stock Purchase Warrant, dated August 9, 2006, incorporated by reference to the Form 8-K filed on August 18, 2006.
4.15	Form of Registration Rights Agreement among IsoRay, Inc., Meyers Associates, L.P. and the other signatories thereto, dated October 17, 2005, incorporated by reference to the Form SB-2 filed on October 16, 2006.
5.1	Opinion of Keller Rohrback, P.L.C., filed herewith.
10.2	Universal License Agreement, dated November 26, 1997 between Donald C. Lawrence and William J. Stokes of Pacific Management Associates Corporation, incorporated by reference to the Form SB-2 filed on November 10, 2005.
10.3	Royalty Agreement of Invention and Patent Application, dated July 12, 1999 between Lane A. Bray and IsoRay LLC, incorporated by reference to the Form SB-2 filed on November 10, 2005.
10.4	Tri-City Industrial Development Council Promissory Note, dated July 22, 2002, incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.5	Section 510(k) Clearance from the Food and Drug Administration to market Lawrence CSERION Model CS-1, dated March 28, 2003, incorporated by reference to the Form SB-2 filed on November 10, 2005.
10.6	Battelle Project No. 45836 dated June 20, 2003, incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.7	Applied Process Engineering Laboratory Apel Tenant Lease Agreement, dated April 23, 2001 between Energy Northwest and IsoRay, LLC, incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.8	Work for Others Agreement No. 45658, R2, dated April 27, 2004 between Battelle Memorial Institute, Pacific Northwest Division and IsoRay Products LLC, incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.

10.9	Development Loan Agreement for $230,000, dated September 15, 2004 between Benton-Franklin Economic Development District and IsoRay Medical, Inc., incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.10	Registry of Radioactive Sealed Sources and Devices Safety Evaluation of Sealed Source, dated September 17, 2004, incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.

10.11	CRADA PNNL/245, "Y-90 Process Testing for IsoRay", dated December 22, 2004 between Pacific Northwest National Laboratory and IsoRay Medical Inc., including Amendment No. 1, incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.12	Intentionally Omitted
10.13	Amendment 1 to Agreement 45658, dated February 23, 2005 between Battelle Memorial Institute Pacific Northwest Division and IsoRay Medical, Inc., incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.14	Equipment Lease Agreement dated April 14, 2005 between IsoRay Medical, Inc. and Nationwide Funding, LLC, incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.15	Lease Agreement, Rev. 2, dated November 1, 2005 between Pacific EcoSolutions, Inc. and IsoRay Medical, Inc., incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.16	Master Lease Agreement Number 5209, dated May 7, 2005 between VenCore Solutions LLC and IsoRay Medical, Inc., incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.17	Contract #840/08624332/04031 dated August 25, 2005 between IsoRay, Inc. and the Federal State Unitary Enterprise << Institute of Nuclear Materials >>, Russia, incorporated by reference to the Form SB-2 filed on November 10, 2005.
10.18	State of Washington Radioactive Materials License dated October 6, 2005, incorporated by reference to the Form SB-2 filed on November 10, 2005.
10.19	Express Pricing Agreement Number 219889, dated October 5, 2005 between FedEx and IsoRay Medical, Inc., incorporated by reference to the Form 10-QSB filed on November 21, 2005.
10.20	Girard Employment Agreement, dated October 6, 2005 between Roger E. Girard and IsoRay, Inc., incorporated by reference to the Form 10-QSB filed on November 21, 2005.
10.21	Contract Modification Quality Class G, dated October 25, 2005 to Contract Number X40224 between Energy Northwest and IsoRay, Inc., incorporated by reference to the Form 10-QSB filed on November 21, 2005.
10.22	Agreement dated August 9, 2005 between the Curators of the University of Missouri and IsoRay Medical, Inc., incorporated by reference to the Form SB-2/A2 filed on April 27, 2006 (confidential treatment requested).
10.23	SICAV ONE Securities Purchase Agreement, dated December 7, 2005, by and between IsoRay, Inc. and Mercatus & Partners, Ltd., incorporated by reference to the Form 8-K filed on December 12, 2005.

10.24	SICAV TWO Securities Purchase Agreement, dated December 7, 2005, by and between IsoRay, Inc. and Mercatus & Partners, Ltd., incorporated by reference to the Form 8-K filed on December 12, 2005.
10.25	Economic Development Agreement, dated December 14, 2005, by and between IsoRay, Inc. and the Pocatello Development Authority, incorporated by reference to the Form 8-K filed on December 20, 2005.
10.26	License Agreement, dated February 2, 2006, by and between IsoRay Medical, Inc. and IBt SA, incorporated by reference to the Form 8-K filed on March 24, 2006 (confidential treatment requested).

10.27	Benton Franklin Economic Development District Loan Covenant Waiver Letter, dated as of March 31, 2005, incorporated by reference to the Form SB-2/A3 filed on May 12, 2006.
10.28	Service Agreement between IsoRay, Inc. and Advanced Care Medical, Inc., dated March 1, 2006, incorporated by reference to the Form SB-2/A2 filed on April 27, 2006.
10.29	Business Loan Agreement between IsoRay Medical, Inc. and Columbia River Bank, dated March 1, 2006, incorporated by reference to the Form SB-2/A4 filed on May 26, 2006.
10.30	Letter from HAEIFC to IsoRay Medical, Inc. dated April 26, 2006, incorporated by reference to the Form SB-2/A5 filed on June 6, 2006.
10.31	Loan Agreement, dated June 15, 2006, by and between IsoRay Medical, Inc. and the Hanford Area Economic Investment Fund Committee, incorporated by reference to the Form 8-K filed on June 21, 2006.
10.32	Commercial Security Agreement, dated June 15, 2006, by and between IsoRay Medical, Inc. and the Hanford Area Economic Investment Fund Committee, incorporated by reference to the Form 8-K filed on June 21, 2006.
10.33	Common Stock and Warrant Purchase Agreement among IsoRay, Inc. and the other signatories thereto, dated August 9, 2006, incorporated by reference to the Form 8-K filed on August 18, 2006.
10.34	Benton Franklin Economic Development District Loan Covenant Waiver Letter, dated September 26, 2006, incorporated by reference to the Form 10-KSB filed on September 28, 2006.
10.35	Form of Officer and Director Indemnification Agreement, incorporated by reference to the Form SB-2 Post Effective Amendment No. 2 filed on October 13, 2006.
16.1	Letter from S.W. Hatfield, CPA to the SEC dated December 13, 2005, incorporated by reference to the Form 8-K filed on December 14, 2005.
21.1	Subsidiaries of the Registrant, incorporated by reference to the Form 10-KSB filed on October 11, 2005.
23.1	Consent of Keller Rohrback, P.L.C. (included in Exhibit 5.1).

Item 28. Undertakings.

The undersigned Registrant hereby undertakes:

1. To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement to:

(a) include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(b) reflect in the prospectus any facts or events which, individually or, together, represent a fundamental change in the information in the registration statement. Notwithstanding the forgoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in the volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(c) include any additional or changed material information on the plan of distribution.

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

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

4. For determining liability of the undersigned small business issuer under the Securities Act to any purchaser in the initial distribution of the securities, that in a primary offering of securities of the undersigned small business issuer pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned small business issuer will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

i. Any preliminary prospectus or prospectus of the undersigned small business issuer relating to the offering required to be filed pursuant to Rule 424;

ii. Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned small business issuer or used or referred to by the undersigned small business issuer;

iii. The portion of any other free writing prospectus relating to the offering containing material information about the undersigned small business issuer or its securities provided by or on behalf of the undersigned small business issuer; and

iv. Any other communication that is an offer in the offering made by the undersigned small business issuer to the purchaser.

5. For the purpose of determining liability under the Securities Act to any purchaser each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectus filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

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

In the event that a claim for indemnification against such liabilities, other than the payment by us of expenses incurred or paid by one of our directors, officers, or controlling persons in the successful defense of any action, suit or proceeding, is asserted by one of our directors, officers, or controlling persons in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification is against public policy as expressed in the Securities Act, and we will be governed by the final adjudication of such issue.

SIGNATURES

In accordance with the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form SB-2 and authorized this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Richland, Washington on this 24th day of October, 2006.

ISORAY, INC.

By: /s/ Roger E. Girard

Roger E. Girard, Chairman and Chief Executive Officer

In accordance with the requirements of the Securities Act of 1933, this registration statement was signed by the following persons in the capacities and on the dates stated:

Signature	Title	Date
/s/ Roger E. Girard Roger E. Girard	Chief Executive Officer and Chairman	October 24, 2006
/s/ Jonathan Hunt Jonathan Hunt	Chief Financial Officer and Principal Accounting Officer	October 24, 2006
/s/ Dwight Babcock Dwight Babcock	Director	October 24, 2006
/s/ Stephen R. Boatwright Stephen R. Boatwright	Director	October 24, 2006
/s/ Robert R. Kauffman Robert R. Kauffman	Director	October 24, 2006
/s/ Thomas C. Lavoy Thomas C. Lavoy	Director	October 24, 2006
/s/ Albert Smith Albert Smith	Director	October 24, 2006
/s/ David J. Swanberg David J. Swanberg	Director	October 24, 2006